



## TABLE OF CONTENTS

Academic Calendar	4
Letter from the Dean of the College	6
About This Catalog	7
About ENC	7
Accreditations	8
Affiliations	8
Liberal Arts Education and General Education Curriculum	10
Academic Divisions	16
General Degree Requirements	16
Majors, Programs and Degrees	19
Admissions Information and Requirements	21
Financial Aid Information and Application Process	25
Student Account Information	37
Student Life Information	42
Academic Information and Policies	49
Academic Programs	67
Administration and Staff	188
Faculty	191
Division and Program Organization	194
Board of Trustees	195
Index	196
Main Campus Map	201

## **ACADEMIC CALENDAR**

#### Fall Semester 2023

	Fall Semester 2023
August 25	Faculty Day
August 26	New Students arrive
August 28	Orientation
August 29	Registration Day
August 30	Classes begin
September 4	Labor Day (Classes Held)
September 6	Final day to register, add a class, or audit a class
September 13	Final day to drop a class or enroll in Honor's Contract
September 15	Enrollment Census Date
September 28-October 1	Homecoming Weekend
October 9	Mid Break
October 20	Mid-term grades posted
October 23-25	5 .
	Mid-term advising
October 25	Final day to withdraw or change to pass-fail
October 31	Advising Day (No classes)
November 2-6	Priority Registration for Spring 2024
November 22-26	Thanksgiving Break (No classes)
November 27	Classes resume
December 8	Last day of once-a-week classes
December 11-14	Modified course meetings
December 18	Final grades posted
January 28, 2024	January diploma date
	Spring Semester 2024
January 9	Registration Day
January 10	Classes begin
January 15	Martin Luther King Jr. Day (No classes)
January 18	Final day to register, add a class, or audit a class
January 24	Final day to drop a class or enroll in Honor's Contract
January 26	Enrollment Census Date
February 21	Social Justice Day/Faculty Development Day (No classes)
March 1	Mid-term grades posted
March 4-8	Spring Break (No classes)
March 11-13	Mid-term advising
March 13	Final day to withdraw or change to pass-fail
March 19	Advising Day (No classes)
March 21-25	Priority Registration for Fall 2024
March 29-April1	Easter Break (No classes)
April 1	Classes resume at 4:00 PM
April 26	Last day of once-a-week classes
April 29-May 2	· ·
	Modified course meetings
May 3	Baccalaureate
May 4	Commencement/May diploma date
May 6	Final grades posted
	nmer Residential Session 2024
May 7	Residential Summer Session begins
May 8	Final day to register, add a class, or audit a class

May 7 Residential Summer Session begins
May 8 Final day to register, add a class, or audit a class
May 9 Final day to drop a class or enroll in Honor's Contract
May 15 Final day to withdraw or change to pass-fail
May 24 Residential Summer Session ends

<sup>\*</sup> Calendar dates are subject to change

## **ONLINE SESSIONS**

#### Fall Online Session I 2023

- September 4 Classes begin
- September 4 Final day to drop a class
- September 8 Final day to register, add a class, or audit a class September 24 Final day to withdraw or change to pass-fail
  - October 15 Session I classes end
    October 23 Final grades posted

#### Fall Online Session II 2023

- October 23 Classes begin
- October 23 Final day to drop a class
- October 27 Final day to register, add a class, or audit a class November 12 Final day to withdraw or change to pass-fail
- December 3 Session II classes end December 11 Final grades posted

#### Spring Online Session I 2024

- January 15 Classes begin
- January 15 Final day to drop a class
- January 19 Final day to register, add a class, or audit a class
- February 4 Final day to withdraw or change to pass-fail February 25 Session I classes end
  - March 4 Final grades posted

#### **Spring Online Session II 2024**

- March 11 Classes begin
- March 11 Final day to drop a class
- March 15 Final day to register, add a class, or audit a class
- March 31 Final day to withdraw or change to pass-fail
- April 21 Session II classes end
- April 29 Final grades posted

#### **Summer Online Session I 2024**

- May 13 Classes begin
- May 13 Final day to drop a class
- May 17 Final day to register, add a class, or audit a class
  June 2 Final day to withdraw or change to pass-fail
- June 23 Session I classes end
- June 30 June diploma date
  - July 1 Final grades posted

#### Summer Online Session II 2024

- July 1 Classes begin
- July 1 Final day to drop a class
- July 5 Final day to register, add a class, or audit a class
- July 21 Final day to withdraw or change to pass-fail
- August 11 Session II classes end
- August 19 Final grades posted
- August 25 August diploma date

<sup>\*</sup> Calendar dates are subject to change

## LETTER FROM THE DEAN OF THE COLLEGE



Welcome to Eastern Nazarene College – a Christian college committed to helping students understand both what they want to do with their lives and who they want to be as people in this world. We embrace the idea contained in our mission that a truly transformational education is one that equips our diverse students to lead and serve as agents of Christ's love and truth.

Within this catalog, you will find essential information regarding Eastern Nazarene College's programs, procedures and policies. I hope that it

will help you more fully understand the opportunities we offer, as well as your responsibilities as a member of the community. Know that as you engage this educational journey, our faculty and staff are ready to mentor you and guide you on this path of discovery.

ENC was founded more than a century ago for just this purpose: to provide students like you with an opportunity to further your educational growth in an environment that cultivates your spiritual and moral development. With our location on Boston's doorstep, we offer our students unparalleled access to a rich array of academic, cultural and scientific resources. Our students enjoy world-class internship and graduate fellowship opportunities, positioning them for future success. We believe these opportunities are invaluable.

But many colleges will give you opportunities for success in your chosen field. At ENC, we invite you to ground your pursuit of success in the profound knowledge of God's intentions for humanity. In doing so, our community will challenge you to know the truth in all its multifaceted dimensions, and to commit your life to the One who is the source of all truth. We are dedicated to the idea that this holistic attention to the formation of our students is the best kind of preparation for life.

We look forward to serving you.

William K. Nelsz

Dr. William McCoy

Vice President for Academic Affairs & Dean of the College

## ABOUT THIS CATALOG

This catalog is an official publication of Eastern Nazarene College. The catalog is an informational guide to ENC's academic programs. It is not a contract between ENC and its students. Although ENC has made every effort to ensure that the information contained in the catalog is accurate and complete at the time of printing, the contents are subject to change at any time. ENC reserves the right to unilaterally add, withdraw or revise any course offering, course description, teaching assignment, program of study, on or off-campus location, policy, practice, provision or requirement described in the catalog, including statement of fees, policies, admissions and graduation requirements.

Students are responsible for acquainting themselves with the policies, requirements, rules, and regulations of ENC included in the catalog and in other official ENC publications. Students may check the college website at www.enc.edu to view published changes to this catalog.

## **ABOUT ENC**

#### MISSION

Eastern Nazarene College provides a transformational education that equips diverse students to lead and serve our world as agents of Christ's love and truth.

#### VISION

Eastern Nazarene College will be widely-recognized as a leader in innovative Christian education, renowned for excellence in student achievement, vibrant intercultural community, and global impact.

#### VALUES

- Holistic Education
- Christian Community
- Student-centered
- Weslevan
- Civility & Hospitality
- Servanthood
- Authenticity & Transparency
- Excellence
- Strategic Innovation
- Accountability

#### ENC COMMUNITY

From its inception in 1900, its move to Quincy in 1919, and down to the present, Eastern Nazarene College has pursued a mission of excellence in education in an atmosphere of Christian faith. The college is located in a suburb of Boston, Massachusetts, which places the college within one of the greatest hubs of educational, cultural, and scientific endeavors in the world. Eastern Nazarene College is coeducational and offers resources and opportunities for participation, advancement, and service to all students regardless of race, religion, national origin, gender, age, disability, genetic information, veteran status, or any other category protected by law.

ENC is one of nine liberal arts colleges supported by the International Church of the Nazarene in the United States and Canada, and part of an educational network of sites supported by the church around the world. Over 30 denominations are represented by the students in traditional undergraduate and adult studies programs. Besides strategic location and equal opportunity, an additional advantage ENC students enjoy over students in larger universities is one of greater personal contact with faculty members who are dedicated not only to their scholarly activities, but also to their personal lives of faith. Rather than sheltering students from challenging ideas and controversial issues, ENC professors encourage debate of ideas and issues as a means of learning, to search for truth, greater depth, and personal meaning in one's faith. With a traditional-undergraduate student to faculty ratio of 11 to 1, students enjoy the opportunity of getting to know their professors personally both within the context of the classroom and in co-curricular activities. All of these elements are reflected in the mission statement and goals that seek to guide every aspect of the college's development.

## **ACCREDITATIONS**

Eastern Nazarene College has gained professional and program accreditation from the following agencies:

Interstate Certification Compact through the National Association

of State Directors of Teacher Education and Certification (NASDTEC)

Massachusetts Department of Elementary and Secondary Education

Massachusetts Board of Higher Education

National Council of State Authorization of Reciprocity Agreements (NC-SARA)

New England Commission of Higher Education (NECHE)

Inquiries regarding the accreditation status by the New England Association should be directed to the administrative staff of the institution. Individuals may also contact:

New England Commission of Higher Education 301 Edgewater Place, Suite 210 Wakefield, MA 01880 781-425-7785 Visit https://www.neche.org/contact/

## **AFFILIATIONS**

Eastern Nazarene College is also a member of and/or affiliated with the following organizations:

American Association of Collegiate Registrars and Admissions Officers

American Association of Higher Education

American Chemical Society

Association for Christian Adult Higher Education

Association for Christians in Student Development (ACSD)

Association of Independent Colleges and Universities of Massachusetts (AICUM)

**Christian Higher Education** 

Commission of the National Association of Evangelicals

Council for Christian Colleges and Universities (CCCU)

Massachusetts Association of Colleges for Teacher Education

National Association of Advisers for the Health Professions

National Association of Christian College Admissions Personnel

National Association of College Admissions Counselors

National Association of College and University Business Officers (NACUBO)

National Association of Student Personnel Administrators

National Collegiate Athletic Association (Division III)

Nazarene Student Leadership Association (NSLA)

New England Resource Center for Higher Education

The College Board

The Council of Independent Colleges

## Notice of Nondiscrimination Policy

Eastern Nazarene College stands committed to providing all students fair treatment and an educational environment free of unlawful discrimination and harassment. ENC does not discriminate on the basis of race, color, religion, national origin, gender, age, disability, genetic information, veteran status or any other category protected by law in admission to, access to, treatment in, or employment in its programs and activities. In addition, discriminatory harassment based on race, color, religion, national origin, gender, age, disability, genetic information, veteran status or any other category protected by law is illegal conduct that will not be tolerated by ENC. Any student, who believes they are being subjected to unlawful discrimination or unlawful harassment, including sexual harassment, should inform the Vice President for Student Life and Title IX Coordinator, the Vice President for Multicultural Affairs, the Dean of Students, or the Director of Human Resources. Students are to refer to the student handbook for further information.

#### TITLE IX / SEX-BASED DISCRIMINATION

can be accessed at enc.edu/titleix.

In compliance with Title IX of the Education Amendments of 1972, Eastern Nazarene College is committed to fostering a campus environment in which students can participate in the educational program without fear of sex-based discrimination, such as sexual harassment, sexual assault, dating violence, domestic violence, and stalking. ENC does not unlawfully discriminate on the basis of sex against students or applicants for admission, or employees or applicants for employment, or in the administration of its policies or in any aspect of its operations. The College will respond to reported violations of Title IX by conducting prompt, thorough, and equitable investigations, and providing supportive measures for those involved. At ENC, any form of sexual harassment should be immediately reported, regardless of whether or not it seems to be a Title IX violation. The College will respond to all violations — both Title IX violations and non-Title IX sexual harassment violations. Title IX information, including policies, procedures, and steps to report a concern,

# LIBERAL ARTS EDUCATION AND GENERAL EDUCATION CURRICULUM

#### Liberal Arts Education

The mission of ENC is to provide a "transformational education that equips diverse students to lead and serve our world as agents of Christ's love and truth." For our undergraduate students, this transformational education occurs in the holistic context of the liberal arts, integrating the student's spiritual, academic, emotional, and social development. In doing so, we intend to cultivate in the student a love of learning and the experience of authentic Christian freedom. Because of our distinctly multicultural and urban environment, a core feature of that liberal arts education is to present students with the integrative study of human culture from a variety of disciplinary perspectives, enabling them to approach relationships with others in a spirit of hospitality. Our special responsibility as a college is to guide students in meaningful ways of knowing, to help students understand the challenges and possibilities created by the interactions of peoples from different cultures, to empower students to engage all of creation in ways that promote justice, and to provide students with an informed basis for creatively solving contemporary problems. The faculty members in every major field of concentration expect students to approach specific courses of study with this underpinning of cultural and philosophical understanding. This culminates in Living Issues, a capstone course taken in the senior year, designed to help students relate these cultural perspectives to their major and to problems in the modern world.

## General Education Mission & Philosophy

#### **Divisional Mission Statement**

The Division of General Education seeks to support the mission of Eastern Nazarene College through the careful integration of courses reflecting multiple ways of knowing. We seek to have students acquire knowledge and develop skills necessary to engage in a life-long appreciation of learning and service. All of our efforts are consistent with our commitment to our Wesleyan-Holiness heritage and, specifically, to the Church of the Nazarene.

### **Divisional Philosophy**

We derive our approach from our view of God as the ultimate patron of honest exploration, human creativity and dedicated service; by these means, we believe that education reflects the central Biblical metaphor of the Exodus as a journey from bondage into freedom. We view the world as God's creation and humans as created in the image of God as revealed in Jesus Christ. Our highest goal is to glorify God whom we worship by seeking to understand God's creation, serving others, and promoting just systems in which all of creation can thrive. We believe the Holy Spirit is actively present in the world, enabling and commissioning us to participate in God's transforming work. In these ways, the Christian perspective which informs our General Education goals is Wesleyan. By means of this approach, the Division of General Education aids students in pursuing

1. Knowing: Students will demonstrate integrated knowledge drawn from both a common liberal arts curriculum and their chosen academic discipline.

the Institutional Goals of an ENC education:

- 2. Critical Reasoning: Students will be able to identify and diagnose problems, develop reasonable arguments, and execute socially responsible and just solutions.
- Aesthetic Understanding: Students will demonstrate creativity through class assignments of various mediums and an appreciation of beauty in the human experience.
- 4. Communicating and Collaborating: Students will demonstrate competency in their ability to read, write, speak, listen, and collaborate effectively.
- 5. Christian Faith and Living: Students will demonstrate competence in the integration of faith and living as responsible and just servants by exhibiting an informed understanding of what it means to be Christian.
- Multicultural Competence: Students will demonstrate the skills necessary to respectfully engage in a diverse, multicultural world.

## General Education Requirements and Recommended Sequence

All students pursuing a bachelor's degree are required to complete the following set of General Education courses as part of the student's liberal arts education. Some majors require specific courses to fulfill the General Education requirements. In addition, some majors (particularly in the sciences, ministry, and education) follow a recommended sequence. Therefore, it is very important for students to consult closely with their advisor when registering for classes in order to take the required courses in the recommended sequence.

#### **DEVELOPMENTAL COURSES**

Placement into the various developmental courses is determined based on a student's college entrance exam scores and their results on the college administered placement testing. Developmental courses prepare students for college level work. As such, they are not counted in the total credits earned toward graduation. Courses that fall into this category are EN098, EN099, MA098 and MA099. Students must earn the minimum grade of C in these developmental courses in order to satisfy the requirement and continue on to college level courses in those areas. These courses should be successfully completed within the first year as they are prerequisites for many other courses.

**EN098 Writing for College (3 cr.)** Emphasizes the development of effective writing and thinking abilities through mastery of the skills recognized to be essential for academic discourse. A prerequisite to CP100 Critical Writing for students whose entrance tests indicate a need. This course does not count toward graduation credits. *Offered fall and spring. Minimum grade: C.* 

**EN099 Reading for College (3 cr.)** Emphasizes reading comprehension, vocabulary, and critical thinking skills. Develops the tools required to successfully master the demands of college work. This course does not count toward graduation credits. *Offered fall and spring. Minimum grade: C.* 

MA098 Fundamentals of Mathematics (3 cr.) Offers a review of basic mathematical operations concentrating on fractions, decimals and percents. Emphasizes pre-algebra topics such as variable expressions, introduction to equations, and translating sentences into equations and covers application of these principles. This course does not count toward graduation credits. Offered fall and spring. Minimum grade: C.

**MA099 Math for College (3 cr.)** A conceptual approach to the math assumed as a prerequisite for college math and science courses. Stresses mastery of basic algebra skills with stress on equation solving, fractions, and application problems. This course does not count toward graduation credits. Offered fall and spring. Minimum grade: C.

#### FIRST YEAR FOUNDATIONS - 2 CREDITS

During the first semester on campus, all students who are first-time college students or transfer in as freshmen must complete CP105 First Year Foundations. The purpose of the course is to orient students to college life and to provide foundational knowledge that will help guide them into their career path. Students are also encouraged to take CP105L, First Year Workshop, which will focus on helping them develop skills needed to succeed in the classroom.

#### PHYSICAL EDUCATION REQUIREMENT - 2 CREDITS

Recommended for Freshman/Sophomore years: All students are required to complete 2 credits of physical education, typically fulfilled by taking PE101/PE102 Theory of Wellness. Varsity athletes may earn credit for participation in a varsity sport. Student athletes must enroll in PE003 Varsity Sport, in the semester they are participating in the sport. For all students, only PE course numbers may be earned toward the PE requirement. No more than 2 credits of physical education may be earned towards meeting graduation requirements.

# LAB SCIENCE REQUIREMENT AND MATH OR SCIENCE REQUIREMENT – 7 CREDITS

All students must fulfill this requirement with two of the following courses. One course MUST be a LAB SCIENCE. The other may be a science or mathematics course, unless otherwise specified in certain majors. Students should consult with their advisor to determine if specific courses are required for their major.

For most students it is HIGHLY recommended that students fulfill their math and lab science options during their freshman year in order to build on their previous educational experiences. Students who are required to take either MA098/MA099 must successfully complete these courses before taking any of the mathematics (including PS251 Statistics for the Social Sciences) or any science courses.

Recommended Lab Sciences (with no prerequisites) - 4 credits

BI101/BI101L Principles of Biology w/Lab

BI110/BI110L Nutrition (for non-majors) w/Lab

BI210/BI210L Earth Science w/Lab

CH101/CH101L Introduction to Chemistry w/Lab

PY101/PY101L Astronomy w/Lab

PY102/PY102L Physical Science w/Lab

EG161/EG161L Introduction to Robotics w/Lab

Recommended Lab Sciences (for those with strong high school science back-

ground. Prerequisites required.) – 4 credits

CH102/CH102L Chemistry of Life w/Lab

PY201/PY201L General Physics I w/Lab (5 credits)

#### **MATHEMATICS OR SCIENCE REQUIREMENT – 3 CREDITS**

CS131 Computer Programming I

**MA101 Math Explorations** 

MA109 Finite Mathematics

MA111 College Algebra

MA118 Introduction to Statistics

MA122 Trigonometry

MA151 Calculus I (4 credits)

MA152 Calculus II (4 credits)

**Specifically excluded:** 

MA098 Fundamentals of Mathematics

MA099 Math for College

#### **SOCIAL SCIENCE REQUIREMENT – 3 CREDITS**

Students may fulfill this requirement by taking a course from the list below. The course used to fulfill this requirement generally may not be used for another core requirement or to meet a requirement in the major. Please be sure to take note of prerequisites for all courses. Students should consult their major degree requirements to determine if a course is required for their major.

All Psychology courses – PS110 through PS499

All Sociology courses - SO110 through SO499

All Crime, Law and Justice courses - CJ260 through CJ499

**BA231 Principles of Microeconomics** 

**BA232 Principles of Macroeconomics** 

**GO210** American Political Institutions

GO220 World Political Geography

PS312 Marriage and Family Relations

**Specifically excluded:** 

CJ190 Introduction to Crime, Law and Justice

#### **CULTURAL PERSPECTIVES REQUIREMENT – 32 CREDITS**

A distinctive feature of the curriculum at Eastern Nazarene College is the Cultural Perspectives sequence. This is a series of courses which seek to integrate various disciplines in the liberal arts (e.g., philosophy, history, literature, natural sciences) in the context of Christian higher education. In this way, we aid students in understanding the interrelated nature of knowledge and bear witness to our belief that all truth is from God.

The Cultural Perspectives sequence further attempts to enable students to understand and appreciate the global world in which we live. In order to achieve this goal, students are invited to examine all aspects of the knowledge they acquire through a variety of cultural lenses. The hope is that students will transcend their own cultural contexts and begin to see the world from the perspective of others.

Throughout the Cultural Perspectives sequence, students are encouraged to develop their critical thinking skills in the context of Biblical concepts of truth, justice, righteousness, and holiness. Students are encouraged to use Christian values as a means of developing their own worldviews as a basis for responding to issues of the day. Where patterns of culture contradict Scriptural mandates, faculty members assist students as they confront and seek to transform the society in which they live.

The Cultural Perspectives sequence is at the heart of the curriculum of Eastern Nazarene College. As such, it represents the foundation on which all other aspects of the curriculum are based. Throughout, it seeks to demonstrate that Biblical principles are dependable guides in the development of a worldview that gives meaning and significance to human existence.

#### **COURSE DESCRIPTIONS**

CP100 Critical Writing and Speaking (3 cr.) CP100 introduces students to writing and speech for general academic discourse and provides building blocks in composition and presentation that are required in every field of study. Students in this course cultivate skills in the rhetorical and compositional strategies common to the written and spoken discourse of the college academy. The course emphasizes critical thinking, summary, analysis and synthesis of source material in the writing of student essays. Students also will build skills and demonstrate abilities in oral presentation of research and composition. Writing and Speech will be explored through the examination of Global/ Multicultural concerns such as class, race and gender. Students will produce three short papers and one long research paper of 2000 words, as well as shorter homework writing and two formal oral presentations. Prerequisite: EN098 Writing for College is required for students whose entrance tests indicate a weakness in this area. Minimum grade: C-.

**CP100L Critical Writing and Speaking Lab (0.5 cr.)** The critical writing and speaking lab provides students with an opportunity to hone their writing and speaking skills in a supportive environment. Students meet once per week in a small group setting for guidance and assistance with writing and speaking assignments from concurrent courses. *Prerequisite: CP100 (at least concurrently), 1 credit of CP100L is required of all students. The CP100L course requirement is waived if a student earns a C+ or higher in CP100. There is a lab fee for this course. Repeatable for credit.* 

**CP105 First Year Foundations (2 cr.)** This intentionally reflective, exploratory, and interactive course equips students with foundational skills, connections, and resources as they embark on their career preparatory and college journey. This course is discussion and activity-based, informed by our faith context, and focuses on exploring vocation and calling, developing self-awareness, connecting with impactful individuals and resources, engaging with diverse community, and preparing for career throughout the college experience. *Minimum grade: D.* 

**CP105L First Year Workshop (1 cr.)** This intentionally interactive and practical course equips students with foundational skills, connections, and resources as they begin their career at ENC. Divided into cohort groups according to academic program, workshop sessions are designed to foster connection between classmates and with program faculty as students engage with practical course content and activities targeting their academic success within their major. *Offered as a pilot during Fall 2023. Minimum grade: D.* 

**CP150 Christian Tradition (3 cr.)** This course traces some of the pivotal events in Christian history, and includes the people, socio-cultural influences and basic theological concerns involved. Attention is paid to developments in each major period of Christian history, as well as to the growth of Christianity from its roots in the Middle East to expansion across Europe and Africa, to its appearance in Asia and the Americas. *Minimum grade: D.* 

**CP195 The West in the World Since 1500 (3 cr.)** An examination of the broad patterns of Western historical development in global context. Special emphasis will be given to the competing assessments of the meaning and significance of Western and modern global civilization. *Minimum grade: D.* 

**CP235 Arts and Music (3 cr.)** This course introduces students to the communication of important aesthetic, philosophical and religious ideas through the languages of music and the visual arts. Examples drawn from African, American, Middle Eastern, Indian and Chinese cultures highlight the global range of artistic thought. *Prerequisites: CP100, CP150, and CP195. Minimum grade: D.* 

CP245 Literature and Culture (3 cr.) A humanities course designed to reveal to students:

1.) the debt the Western literary tradition owes to the ancient, pre-Christian world; and

2.) how literature operates as an important vehicle for cultural exchange between the east and the west. In the process, students will refine their skills in reading and understanding

literary works, including the interpretation of figurative language, an awareness of how literary genre shapes content, and the ability to articulate central themes. *Prerequisites:* CP100 and CP195 (at least concurrently). Minimum grade: D.

CP250 The Bible in Current Perspective (3 cr.) Serves as a broad introduction to the Bible and the various ways it impacts both the church and contemporary society. Provides an introduction to the formation of the Christian canon and surveys the major themes of the Old and New Testaments. Throughout the course, connections are drawn between the Bible and other disciplines, especially connections to the topics covered in the other courses in the Cultural Perspectives curriculum. Prerequisites: CP100, CP150, and CP195 (at least concurrently). Minimum grade: D.

**CP290 East Meets West: Western Philosophy and Globalization (3 cr.)** This course addresses philosophical themes that arise as the result of the human search for meaning in the present context of globalization. While it will include a historical survey of significant Western response to these perennial human questions, it will also include voices from outside the Western tradition. Emphasis will be placed on those concepts, issues and philosophers which have played the greatest role in Western civilization, and which may offer significant answers to today's global questions. Emphasis will be placed upon correlations with other courses in the Cultural Perspectives curriculum. *Prerequisites: CP100, CP150, and CP195 (at least concurrently). Minimum grade: D.* 

CP325 Epoch-Making Events in Science (3 cr.) This course examines selected great ideas from science, the environments from which they arose, the people involved, and their impacts upon contemporary and succeeding generations. Interactions of scientific thought with prevailing philosophical and religious outlooks are considered. Among the ideas and epochs discussed are: the birth of the scientific tradition, the Copernican revolution, Darwin's theory of evolution, and contemporary issues of scientific significance. This course includes discussion of the religious implications of science, as unfolded in the controversies surrounding Galileo and Darwin. Prerequisites: CP250 and one Lab science. Minimum grade: D.

CP350 World Religions (3 cr.) Studies the historical understandings and practices of the major belief systems of the world, such as: Buddhism, Confucianism, Hinduism, Taoism, Islam, Judaism, and secondary groups that have developed from them. This course will include optional visits to observe local places of worship and meditation in the Boston area. Prerequisites: CP250 and CP290. Minimum grade: D.

**CP410 Living Issues (3 cr.)** This is the capstone course in ENC's Cultural Perspectives sequence of courses, designed to expose students to some of the major challenges facing humanity as a whole and the student as an individual. One of the primary course objectives is the exploration of the tensions and possibilities that exist for Christian faith and values in a society permeated with individualism, materialism, and despair. This course also deals with moral philosophy around the globe, considering social issues and morality from the vantage point of ethics and responsibility. *Prerequisites: CP250, CP290, and Senior standing. Minimum grade: D.* 

Summary	of (	General	Ed	lucation	Course	Sec	uence —	Α	Checklist
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Freshman Year	Sophomore Year	Junior Year	Senior Year
CP100/CP100L	CP235	CP325	CP410
CP105	CP245	CP350	
CP150	CP250		
CP195	CP290		
Social Science			
Mathematics			
Lab Science			
2 credits PE			

#### **ACADEMIC DIVISIONS**

## Traditional Undergraduate Division

The traditional undergraduate program at Eastern Nazarene College is built upon a General Education curriculum which is the foundation for each of the college's major programs of study. Each student seeking a bachelor's degree is required to complete the General Education curriculum which includes forty-four credits total. General Education requirements for students seeking the associate degree are somewhat less extensive. In addition to the General Education curriculum, each student will select a major within a specific program of study, and in some instances, a special set of courses to prepare for particular careers. Three academic divisions offer a wide range of majors, tracks within majors, certifications in education, and a variety of pre-professional tracks. Full-time undergraduate students typically register for 15 to 17 credit hours per

semester. Most ENC courses are worth three credit hours each, which means a full load during a semester is normally five courses for students to stay on track for graduation. Students are expected to spend at least twice as much time studying outside of class as they spend in class each week.

All undergraduate programs of study at ENC are designed so that a student who receives standard admission to the college and completes the typical number of credits each semester will be able to satisfy their degree requirements within four academic years. However, for a variety of reasons (i.e., a late decision to change majors, the need for developmental course work, etc.), it is not uncommon that students require more than four years to complete their degrees. Students are urged to work closely with their academic advisor, who provide support in the selection of courses, to design a course of study that helps them successfully reach completion in the most timely manner possible.

## **GENERAL DEGREE REQUIREMENTS**

## Associate Degrees

In order to earn an associate degree, a student must successfully complete the following degree requirements:

- A minimum of 61 total credit hours
- Completion of the Liberal Arts Core curriculum as specified for the associate degree (General Education requirements)
- Completion of the major, as specified in the program listing, with a grade of C- or better for all courses applied to the major, unless otherwise stated by the program
- Completion of a minimum of one-half of the major in residence at ENC
- Electives completing the total number of credit hours needed
- A cumulative grade point average of 1.8 or better

## Bachelor's Degrees

In order to earn a bachelor's degree, a student must successfully complete the following degree requirements:

• A minimum of 123 total credit hours

- Completion of the Liberal Arts Core curriculum (General Education requirements)
- Completion of a major, as specified in the program listing, with a grade of C- or better for all courses applied to the major, unless otherwise stated by the program
- Completion of the senior year (30 credit hours) and a minimum of one-half of the major in residence at ENC
- Electives completing the total number of credit hours needed
- Portfolio project in the major field completed to the satisfaction of the requirements set by the faculty responsible for the major
- A cumulative grade point average of 2.0 or better based on the student's major

## Dual Degrees: BA and BS Degrees

Students who pursue two majors that are different degrees (Bachelor of Arts degree and Bachelor of Science degree) are considered to be dual degree students. A dual degree student must complete the following requirements:

- A minimum of 152 total credit hours
- Completion of the Liberal Arts Core curriculum (General Education requirements)
- Completion of two majors as specified in the program listings, with a grade of C- or better for all courses applied to either major, unless otherwise stated by the program
- Completion of the senior year (30 credit hours) and a minimum of one-half of each major in residence at ENC
- Electives completing the total number of credit hours needed
- Portfolio projects in both major fields completed to the satisfaction of the requirements set by the faculty responsible for each major
- A cumulative grade point average of 2.0 or better based on the student's majors

#### Minors

Minors are offered in every area of study in which a major is offered. Minors generally consist of at least 15 credits in a program. Please consult the individual program curriculum for requirement details. A minimum of one-half of the minor must be completed at ENC.

## Adult and Graduate Studies (AGS) Division

Eastern Nazarene College (ENC) is the original adult education program on Boston's South Shore. ENC offers associate, bachelor's, and master's degree programs to adult students across southeastern Massachusetts, as well as online. The degree programs offered by the division of Adult and Graduate Studies were developed out of the desire to serve the adult population in eastern Massachusetts. We understand the special requirements of adults who are interested in receiving a college degree, but who must also continue to meet their professional, personal, and family commitments. We designed our degree programs specifically for working adults looking to advance their career and structured our programs to help professionals navigate their program of study while simultaneously balancing work and family responsibilities. Beginning in 2021, the Adult and Graduate Studies Division has also begun introducing ENC's first fully online degree programs.

#### UNDERGRADUATE PROGRAMS

The division of Adult and Graduate Studies (AGS) offers accelerated programs at the associate and bachelor's levels in a format that enables working adults to complete their degree by meeting one evening per week for class sessions. Some courses are also offered online. Each program's curriculum, instruction, and administration combine theoretical knowledge with the student's background of practical experience. Please contact AGS for degree information or click on the Adult and Graduate Studies link found on the college website at www.enc.edu.

#### GRADUATE PROGRAMS

The graduate programs offered by the division of Adult and Graduate Studies (AGS) are designed to provide professional preparation and certification for students in careers such as education and counseling, as well as advanced study in business management. Degrees offered include the Master of Science in Management, the Master of Science in Marriage and Family Therapy, and either the Master of Education in Higher Education Administration or the Master of Education, which prepares candidates for public school licensure in the Commonwealth of Massachusetts. Courses are offered during the late afternoon and evening to accommodate working adults. ENC also offers the Master of Science in Management degree in a fully online format, with both the general track and a unique track in Healthcare Administration available.

## MAJORS, PROGRAMS AND DEGREES

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MAJOR	PROGRAM	DEGREE	COLLEGE DIVISION
Accounting	Accounting	BS	Professional Studies
Biochemistry	Biology/Chemistry	BS	Science & Technology
Bioinformatics	Bioinformatics	BA, BS	Science & Technology
Biology	Biology	BA, BS	Science & Technology
<b>Business Administration</b>	Business	BA	Professional Studies
Chemistry	Chemistry	BA	Science & Technology
Children's Ministry	Children's Ministry	BA	Church, Society & Humanity
Christian Ministry	Christian Ministry	BA	Church, Society & Humanity
Computer Science	Cloud Application Development	Minor	Science & Technology
Computer Science	Computer Science	BA, BS	Science & Technology
Computer Science	Cybersecurity	Minor	Science & Technology
Crime, Law and Justice	Crime, Law and Justice	BA	Church, Society & Humanity
Crime, Law and Justice	Advocacy	BA	Church, Society & Humanity
Crime, Law and Justice	Law Enforcement	BA	Church, Society & Humanity
Crime, Law and Justice	Legal	BA	Church, Society & Humanity
Digital Marketing	Business	Minor	Professional Studies
Education (Early Childhood)	Early Childhood Education/Liberal Arts	AA, BA, Certification	Professional Studies
Education (Elementary)	Elementary Education/Liberal Arts	BA, Certification	Professional Studies
Education (Secondary)	Secondary School Various	BA, Certification	Professional Studies
Education (Special Education)	Special Needs – Moderate Disabilities/Liberal Arts	BA, Certification	Professional Studies
Engineering	Computer Engineering	BS	Science & Technology
Engineering	Electrical Engineering	BS	Science & Technology
Engineering	Electrical Engineering Technology	BS	Science & Technology
Engineering	Engineering Studies	BA	Science & Technology
Engineering	Environmental Engineering Technology	BS	Science & Technology
Engineering	General Engineering	BS	Science & Technology
Environmental Science	Environmental Science	BS	Science & Technology
<b>Environmental Studies</b>	Environmental Studies	BA	Science & Technology
Exercise Science	Various	Minor	Interdivisional
Finance	Finance	BS	Professional Studies
General Studies	General Studies	AA	Interdivisional
Global Business	Global Business	BS	Professional Studies
Government	Various	Minor	Church, Society & Humanity
Healthcare Administration	Business	Minor	Professional Studies
Health Science	Health Science	BS	Science & Technology
History	History	BA	Church, Society & Humanity
History	Public Administration	Minor	Church, Society & Humanity
History Education	History	BA	Church, Society & Humanity
Information Technology	Information Technology	AS, BS	Science & Technology
Intercultural Studies	Intercultural Studies	BA	Church, Society & Humanity
Liberal Arts	Liberal Arts	BA	Interdivisional
Management	Management	BS	Professional Studies
Marketing	Marketing	BS	Professional Studies
Mathematics	Applied Mathematics	BS	Science & Technology
Mathematics	Mathematics	BA, BS	Science & Technology
Philosophy	Religion	Minor	Church, Society & Humanity
Physics	Applied Physics	BS	Science & Technology
Physics	Physics	BA, BS	Science & Technology
Pre-Law	Various	Minor	Interdivisional
Project Management	Business	Minor	Professional Studies
Psychology	Child/Adolescent Development	BA	Church, Society & Humanity

## MAJORS, PROGRAMS AND DEGREES (Continued)

MAJOR	PROGRAM	DEGREE	COLLEGE DIVISION
Psychology	Clinical and Research	BS	Church, Society & Humanity
Psychology	Social Relations	BA	Church, Society & Humanity
Religion	Biblical Literature	BA	Church, Society & Humanity
Religion	Religion	BA	Church, Society & Humanity
Religion	Theology and Philosophy	BA	Church, Society & Humanity
Religion	Biblical Languages	Minor	Church, Society & Humanity
Social Justice	Various	Minor	Interdivisional
Sociology	Various	Minor	Professional Studies
Sport Management	Interdisciplinary	BS	Professional Studies
Supply Chain Management	Business	Minor	Professional Studies
Worship Arts	Worship Arts	BA	Church, Society & Humanity
Youth Ministry	Youth Ministry	BA	Church, Society & Humanity

## ADMISSIONS INFORMATION AND REQUIREMENTS

Eastern Nazarene College offers admission to qualified applicants who demonstrate appropriate academic achievement, good character, extracurricular involvement, and community engagement. The College has recently moved to test-optional admissions. Although SAT or ACT scores can be useful, admission will be based on a holistic review of academic achievement and other civic engagement. Transfer student applicants who present a minimum cumulative grade point average of 2.0 on a 4.0 scale are eligible for full admissions to the college.

The Committee on Admissions will review application portfolios that do not meet the minimum admission requirements, and these applicants may be considered for admission through the Bridge Program at Eastern Nazarene College. Prior to considering an application for the Bridge Program, the Committee on Admissions may require the applicant to take placement testing, and may ask the student to provide additional materials attesting to readiness for college.

#### HONORS SCHOLAR SOCIETY

ENC's Honors Scholar Society supplements students' academic, spiritual, and ethical development through courses and activities designed to stretch the mind and strengthen the heart. Eligible students are encouraged to participate in Honors classes, extracurricular activities, service projects, and learning opportunities with contemporary scholars in various fields. The society continues the long history of academic excellence at ENC and participating students may graduate with the transcript designation of Honors Scholar.

#### **ELIGIBILITY REQUIREMENTS**

First-year students are invited to join the Honors Scholar Society by applying during the fall semester to take the Honors course IS199 during the spring semester. Students who complete IS199 with a B or better grade and have attained a composite GPA of 3.5 or above will be inducted into the Society at the end of their first year. Transfer students and others who were not invited to take IS199 may still join the Honors Scholar Society if after two full semesters at ENC they earn a composite GPA of 3.5 or higher and successfully complete at least one Honors course (either a designated Honors course or by contract).

#### HONORS SCHOLAR SOCIETY REQUIREMENTS

To graduate with an Honors Scholar notation on their transcripts, students must finish with a composite GPA of 3.5 or higher and successfully complete the following Honors Scholar Society requirements:

- Earn at least a B in two Honors courses within their major, which are typically done
  by contract. Participation in contracted Honors courses involves an extension of
  the syllabi. Individual professors should be contacted about taking their course for
  Honors credit. A Contract Form (available on the ENC Website) must be submitted
  the second week of the course. A student with a double major may contract one
  course in each major or two courses in the major of their primary interest.
- 2. Earn at least a B in two Honors courses outside their major.

The following courses are specifically designated as Honors, but any course can potentially be contracted for Honors:

- IS199 Contemporary Questions (this replaces one of the courses in the General Education sequence for Honors students)
- IS299 Boston Lectures Seminar
- CP350H Honors World Religions
- 3. Earn at least a B in any two Honors courses of the student's choosing, bringing the total number of Honors courses on the student record to six.
- 4. Complete 150 hours of service learning between the time of their induction into the Society and graduation from ENC. Service learning activity must be related to the student's course of study and/or career plans, and although it may be activity for which a student is compensated (i.e. working as a tutor or lab assistant), it may not be activity required to satisfy the internship/practicum requirements of the student's major program.
- 5. Complete a piece of original research suitable for presentation at the annual Academic Symposium during the time that they hold junior or senior standing at ENC.

#### **BRIDGE PROGRAM**

The Bridge Program at Eastern Nazarene College (ENC) is a year-long program designed to deliver extra academic support to a select group of first-year students, and to ultimately empower them to achieve success throughout their college experience at ENC and beyond. To this end, Bridge provides students with two semesters of shared learning experiences, cohort-style remedial and general education courses, weekly tutoring, regularly scheduled academic advising, and mentorship. Based on an overview of students' application portfolios, the Office of Admissions identifies prospective Bridge students. The Accuplacer test is administered prior to registration to determine which remedial courses are required to be completed during the program.

## **Application Process**

While admission to Eastern Nazarene College is selective, the application process is designed to be a highly personal experience. Each applicant is assigned an enrollment counselor, who will provide guidance and support at each stage of the process. The Director of Admissions and the Committee on Admissions also employ an assessment method that evaluates the entire application portfolio when making the final admission decision: grade point average (GPA), class rank, SAT/ACT score (optional), and TOEFL/IELTS score (where applicable), plus other personal items are used to determine admission. Notification of the decision is made year-round, on a case-by-case basis, after all the required materials have been received. Because the College grants admission on a rolling basis, students are highly encouraged to complete the application process as soon as possible.

#### FIRST-TIME FRESHMAN APPLICATION PROCESS

First-time freshman applicants are invited to submit an application for admission during the second semester of their junior year of high school. Students should have a solid academic record; ENC recommends at least 4 years of English, 2 years of history, 2 years of social science, 3 years of foreign language, 3 years of mathematics, and 2–3 years of

sciences before high school graduation. In order to complete the application portfolio and be considered for admission to ENC, applicants must submit the following materials to the Office of Admissions:

- The online application for admission.
- An official report of standardized test scores for either the SAT or the ACT is accepted, but no longer required for admission. ENC's code for the SAT is 3365 and the ACT is 1818. Scores submitted on official secondary school transcripts are considered official, as well. The Accuplacer test may also be required.
- Applicants must arrange to have an official signed and sealed copy of the high school transcript sent directly to the Office of Admissions at Eastern Nazarene College following completion of their junior year. If any of these institutions are located outside of the United States, the transcripts must first be evaluated by an external agency (see International Student Application Process). A final transcript with a graduation date must also be sent to the College after graduation. An official score report and partial secondary school transcripts are required of applicants who have earned the General Equivalency Diploma.

Applicants should also submit all college transcripts, if dual-enrolled. For students who take the Advanced Placement (AP) Test, a score of three will result in a waiver and a score of four or five will result in a waiver with credit for the equivalent course in most cases. Students who take CLEP exams and receive the minimum score listed will receive college credit and waiver of the listed requirement. Students must have official scores for AP and CLEP exams sent to the Office of the Registrar at Eastern Nazarene College for evaluation. For further details refer to the Academic Information and Policies section of the catalog.

#### HOME-SCHOOLED STUDENT APPLICATION PROCESS

Some of ENC's best students began their educational journey at home; the College is very welcoming of home-schooled students who wish to apply. Since home-schooled students typically do not have ready access to guidance counseling, Eastern Nazarene College enrollment counselors are available to guide students through the application process. The application requirements are the same as those for non-home-schooled first-time freshmen. Applicants must submit documentation of high school completion with a diploma, GED certificate, or certificate of high school completion (recognized by the state, if applicable).

#### TRANSFER STUDENT APPLICATION PROCESS

Transfer students at Eastern Nazarene College experience the same high-quality education, world-class environment, and close-knit community enjoyed by all students at ENC. Many of the undergraduate students currently enrolled at the College entered as transfer students in search of a Christian college of the liberal arts and sciences with a reputation for academic excellence and global engagement.

To qualify as a transfer student, an applicant must have completed a minimum of twelve credits of transferable coursework from a regionally accredited institution. An applicant who does not qualify as a transfer student will be required to follow the first-time freshman application process. In order to complete the application portfolio and be

considered for admission to ENC, transfer student applicants must submit the following materials to the Office of Admissions:

- The online application for admission.
- Transfer student applicants to Eastern Nazarene College must be in good academic, financial, and social standing at all institutions previously attended. Students must arrange to have official signed and sealed transcripts from all post-secondary institutions previously attended sent directly to the Office of Admissions at Eastern Nazarene College. The transcript must show course grades, as well as the cumulative GPA. If actively enrolled in courses at the time of application, a final transcript must be forwarded immediately after completion of the term or semester.

The Office of the Registrar at Eastern Nazarene College evaluates transfer students' transcripts. Transfer credit will generally be granted for courses taken at an accredited institution of higher education, provided such work is appropriate to degree requirements at Eastern Nazarene College and was completed with a minimum grade of C-, although credit for a course does not guarantee that the course will fulfill a major requirement. A minimum cumulative grade point average of 2.0 on a 4.0 scale is required for transfer, but does not guarantee acceptance to the College. Pass/fail courses are not transferable without official validation that the minimum passing grade is a C.

#### INTERNATIONAL STUDENT APPLICATION PROCESS

Eastern Nazarene College has a long tradition of enrolling students from many different countries, and can speak proudly to the diversity of students attending the College. Eastern Nazarene is one of the most ethnically diverse Christian colleges in the United States, and the Boston area is the perfect place to study internationally because of the wealth of social, cultural, and research opportunities available to students here. ENC offers institutional merit-based financial aid to all incoming international students. International students may qualify for additional need-based financial aid by completing the International Student Financial Aid Application.

International students are those individuals who wish to attend an institution of higher education in the United States, but who hold neither U.S. citizenship nor permanent resident status in the U.S. All international students applying to Eastern Nazarene College must be at least 17 years of age, have a high school diploma or equivalent with an acceptable level of academic performance, and possess a proven ability to speak the English language. In order to complete the application portfolio and be considered for admission to ENC, international student applicants must submit the following materials to the Office of Admissions in English, or accompanied by a certified English translation:

- The online application for admission.
- For non-native English speakers, proof of English proficiency must be submitted through the Test of English as a Foreign Language (TOEFL), International English Language Testing System (IETLS), or the Duolingo Exam. ENC's code for the TOEFL is 3365.
- All international student applicants must complete an International Student Certification of Finances form and submit financial documentation that proves the ability to finance at least one academic year.

• Applicants must arrange to have an official signed and sealed copy of the secondary school (if applying as a first-time freshman) or college (if applying as a transfer student) transcripts sent to the Office of Admissions at Eastern Nazarene College. If you have attended a non-U.S. school, you may be asked to send your transcripts through a foreign credential evaluation service. You can use any member agency of the National Association of Credential Evaluation Services (NACES) found at www.NACES.org. For students currently attending secondary school, a final transcript with a graduation date must be sent to the College immediately after graduation.

#### READMISSION APPLICATION PROCESS

Former Eastern Nazarene College students who were not registered in the previous semester are asked to submit the Application for Undergraduate Readmission to reactivate previous credentials and be considered for readmission to the College. Applications for Undergraduate Readmission will be processed through a readmission procedure that includes confirmation from the Student Development Office, Office of the Registrar, Student Accounts Office, and Office of Financial Aid. Contact the Office of Admissions to begin the Readmission application process. Applicants must be in good academic, financial, and social standing at Eastern Nazarene College.

A Readmission applicant who has attended other institutions since leaving Eastern Nazarene College must have an official academic transcript forwarded from each institution. The transcript should indicate all courses taken, including courses inprogress. The transcript must show course grades, as well as the cumulative grade point average. If actively enrolled in courses at the time of application, a final transcript must be forwarded immediately after completion of the term or semester.

For more information, contact the Office of Admissions at Eastern Nazarene College at:

Office of Admissions
Eastern Nazarene College
23 East Elm Avenue
Quincy, Massachusetts 02170
617-745-3711 (phone) 617-745-3992 (fax) admissions@enc.edu

# FINANCIAL AID INFORMATION AND APPLICATION PROCESS

Eastern Nazarene College annually awards financial assistance to help students pay for college. Students should investigate the wide variety of financial aid sources for which they may be eligible. The financial aid awarding process is initiated when a student applies for admission to Eastern Nazarene College. Initial awards are merit awards based on an applicant's prior academic record and academic potential. Need-based awards are granted after an applicant has submitted the Free Application for Federal Student Aid (FAFSA). ENC encourages applicants to contact Student Financial Services early in the application process. Students must apply annually for financial aid by completing the FAFSA at studentaid.gov. To continue to receive most types of financial aid, students must maintain the required number of credit bours and maintain

satisfactory academic progress. Please refer to the section on satisfactory academic progress for more information. Students must be currently enrolled at ENC or have gained admission as a degree-seeking student to the college before Student Financial Services can determine eligibility for aid.

#### United States Citizens and Resident Alien Students

In order to be considered for financial assistance (federal, state, institutional), students must submit the following documentation:

- Complete the Free Application for Federal Student Aid (FAFSA) online at studentaid.gov. A completed FAFSA is required to be eligible for any federal or state aid. (Suggested date by which this application should be completed for maximum financial aid award consideration: December 1).
- 2. The FAFSA is usually the only application required for residents who may be eligible for a state grant. Some states, such as Vermont, may require a supplemental form in addition to the Free Application for Federal Student Aid. This supplemental form will be available through secondary school guidance offices or appropriate state agencies. Complete and send this supplemental application form to the appropriate agency by the stated deadline.
- 3. Based on federal regulations, some applicants are selected for FAFSA Verification. This process requires that the applicant submit a Verification Worksheet and/or recent tax return transcripts or signed tax return from the Internal Revenue Service (IRS) for the parents and the student for the specific year requested, along with any other documents that Student Financial Services may request. Student Financial Services will inform all applicants by email and on the student portal if they are selected for verification. Student Financial Services can assist you in completing the verification process if help is needed.
- 4. There may be additional documents required, even if you are not selected for verification (W-2s, passport, driver's license, marriage certificates, social security card, tax return transcripts, Form 1040X, Form 4868, court/agency documentation, etc.). The student will be notified by SFS of any additional documents that may be required.

#### Financial Aid Guidelines and Deadlines

#### FINANCIAL AID GUIDELINES

In order to enroll in classes, a student must be cleared by Student Financial Services using the following criteria:

- Demonstration of sufficient funds available to cover the balance for the academic
  year. This includes all sources of funding such as government loans and grants,
  institutional grants and scholarships, and outside scholarships that are included on
  the financial aid award letter. The financial aid award letter is available by logging
  into the portal.enc.edu/WebAdvisor.
- Submission of all documentation required to complete the FAFSA verification (if applicable).
- Documentation of a payment plan that includes any of the following types of funds:

- a) Sources identified on the financial aid award letter (institutional scholarships, federal loans, outside scholarships).
- b) Payment in full.
- c) A payment plan through the ENC student portal.
- d) Federal Parent PLUS loan or private education loans.
- e) Family contributions like UPLAN and 529 plans.
- Meeting specified Financial Aid deadlines.

#### IMPORTANT DEADLINES

The following deadlines apply to students seeking to enroll for the fall semester. Please contact Student Financial Services for deadlines related to the spring or summer semesters.

- October 1st
  - This is the first day that the Free Application for Federal Student Aid (FAFSA) becomes available. The online form can be found at studentaid.gov. When prompted, enter the ENC School Code: 002145.
- November 1st
  - Upon submission and processing of the FAFSA, your Student Aid Report (SAR) will arrive. Review it and submit any necessary corrections.
- December 1st
  - Priority deadline for receipt of the FAFSA by Eastern Nazarene College's Student Financial Services.
- April 1st
  - If the FAFSA was submitted by the priority deadline of December 1st and you are a returning/continuing student at ENC, you will either receive your financial aid award letter or a request for additional information.
- May 1st
  - A \$300 admissions deposit is due by May 1st for newly enrolled students starting at ENC. The deposit allows students to reserve scholarships, secure best choices for classes, increase housing selections, and guarantee invitations to summer events offered to deposited students.
- June 1st
  - Earliest date that you can start applying for PLUS loans or private educational loans and arranging a payment plan for the academic year.
- July 1st
  - Priority date for completing all of the required documents and actions provided in the award packets. Financial aid awards and requirements can be viewed and accepted or rejected through the student portal at https://portal.enc.edu.
  - Complete a payment plan through TouchNet on the ENC online portal.
  - Complete all loan applications and processes (example: Federal Direct Loan Entrance Counseling and Master Promissory Note, Parent PLUS Loan application and Master Promissory Note, private loans).
- July 31st
  - Final deadline for completing entire process for Student Financial Services.

## Notification of Award

Approximately three days to three weeks after submitting the FAFSA, the student will receive a Student Aid Report (SAR) from the U.S. Department of Education. The Institutional Student Information Record (ISIR) will also be sent to ENC, provided that the applicant includes ENC's Title IV school code, 002145, when filling out the FAFSA. In the event that the student did not list ENC on the FAFSA, but subsequently wishes to apply for aid at ENC, the student should log back into studentaid.gov and add ENC's school code. Student Financial Services must have an ISIR from the U.S. Department of Education for an admitted or active student before a complete financial aid award letter can be prepared.

Once an ISIR has been received, Student Financial Services will process it and send an award notification email to the student. Students should be aware that financial aid awards are subject to change whenever new information is received by Student Financial Services. Aid may decrease or be withdrawn due to FAFSA data errors discovered in verification, withdrawing from the college, dropping below full-time status, academic probation, or suspension. Scholarships that arrive late in the process may alter the disposition of loan levels or eligibility. It is not uncommon for a student to receive notification by email of updates to financial aid awards. Financial aid awards are considered to be estimated until the file has been verified or finalized.

All financial aid is based solely on the availability of funds.

## Benefits of Applying for Financial Aid

Students should not assume ineligibility for financial assistance because of the level of family income. Factors such as family size, age of the older parent, medical or other extraordinary expenses, and number of children in college are important variables in determining financial need. Generally, all U.S. citizens and resident aliens, unless they have previously defaulted on a federal loan, are eligible for at least a Federal Direct Unsubsidized Loan.

## Types of Financial Aid

There are two general categories of financial assistance for eligible students. Gift aid consists of grants, scholarships, and awards that do not require repayment. These include Eastern Nazarene College institutional endowed scholarships and grants, federal and state grants, and other outside scholarships. Self-help aid consists of various ways for students to pay for college expenses through loan and employment programs. Listed below are brief descriptions of the major types of financial aid available to students. For more detailed information students should contact Student Financial Services.

#### FEDERAL LOAN PROGRAMS

#### William D Ford Federal Direct Loan

Under this program, the U.S. Department of Education is your lender. There are three types of Direct Loans available (subsidized, unsubsidized, and PLUS). A loan is money you borrow and must pay back with interest. The grid below shows the loan amounts per academic year for eligible students who are enrolled at least half-time. Partial-year students may qualify for a portion of the yearly amount. If a parent is declined for the

Federal PLUS Loan by the Department of Education, a dependent student may be eligible to receive the additional independent Direct Loan amounts.

Direct Subsidized Loans are awarded to undergraduate students based on need and thus the annual amount may be partially or entirely awarded as a Federal Direct Unsubsidized loan. Half-time status is the minimum requirement to be eligible.

- For subsidized loans, payments and interest accrual begin six months after the student graduates, drops below half-time, or leaves school.
- For unsubsidized loans, interest accrual begins immediately, while repayment begins
  six months after the student graduates, drops below half-time, or leaves school.
  Students may choose to pay the interest while in college, keeping down the cost of
  the loan, or they may choose to defer the interest which will increase the total cost of
  the loan.
- Eligibility for Federal Direct Loans is determined by the FAFSA. Before funds can be
  credited to the student's account for the first time, the student must complete federal
  loan entrance counseling and a MPN (Master Promissory Note). These requirements
  can be completed at studentaid.gov. Please note that origination fees are extracted
  from the total (gross) amount of the loan, reducing the net loan amount that is
  applied to the student account.

Borrowers must also complete federal exit loan counseling when leaving the college or when dropping below half-time enrollment. This is completed at studentaid.gov.

	Dependent student <sup>1</sup>	Independent student <sup>2</sup>
1st-year undergraduate	\$5,500 (maximum \$3,500 subsidized)	\$9,500 (\$3,500) <sup>3</sup>
2nd-year undergraduate	\$6,500 (maximum \$4,500 subsidized)	\$10,500 (\$4,500) <sup>3</sup>
3rd- and 4th-year undergraduate	\$7,500 (maximum \$5,500 subsidized)	\$12,500 (\$5,500) <sup>3</sup>

<sup>&</sup>lt;sup>1</sup> Except students whose parents are unable to borrow a PLUS loan.

#### **Federal Direct PLUS Loan**

PLUS loans are available to parents of dependent undergraduate students. Students must be enrolled at least half-time. The U.S. Department of Education is the lender and the borrower must not have adverse credit history. Though applicants must pass a credit check in order to qualify, the terms of approval are typically less stringent than other loans. Applicants are eligible to borrow up to the cost of attendance minus any other aid received. The parent must also complete a Parent Master Promissory Note. PLUS Loans enter repayment once the loan is fully disbursed, unless the parent requests deferment on the PLUS application. The parent may request deferment until the student graduates, leaves school, or is enrolled less than half-time, or may request an additional six month grace period. Parent borrowers may also contact their loan servicer and request to have the PLUS loan deferred.

<sup>&</sup>lt;sup>2</sup> These limits also apply to dependent undergraduate students whose parents are unable to borrow a PLUS loan.

<sup>&</sup>lt;sup>3</sup> The numbers in parentheses represent the maximum amount that may be subsidized.

Special loan counseling is required for any PLUS Loan applicant who has an adverse credit history but who qualifies for a PLUS Loan through the process of appeal or by obtaining an endorser for the loan.

The PLUS loans have a fixed interest rate. For more details and to apply, please go to studentaid.gov.

# FEDERAL AND STATE GRANT & SCHOLARSHIP PROGRAMS Federal Pell Grant

This grant is the need-based foundation of the federal financial aid program. Apply with the Free Application for Federal Student Aid (FAFSA) at studentaid.gov. Pell grants are awarded only to undergraduate students who have not earned a bachelor's or a professional degree. Eligibility is based on need as determined by the Department of Education's standard formula that is revised and approved by the U.S. Congress each year. Grants do not have to be repaid. Pell Grants, as an entitlement program, are available regardless of when the FAFSA is filed during the year, up to the last class day of that academic year.

#### Federal Supplemental Educational Opportunity Grant (FSEOG)

This grant is administered by the college (as "campus-based" aid) under the guidelines of federal policy as the funds are available. Eligible students who need additional assistance may receive between \$100 and \$4,000 a year for their educational expenses, with full Pell recipients being given first consideration until available funds are depleted. In order to be eligible for consideration, the student must submit a FAFSA.

# Federal Teacher Education Assistance for College and Higher Education (TEACH) Grant

The TEACH Grant Program provides grants of up to \$4,000 a year in exchange for agreeing to serve as a full-time teacher in a high-need field in a public or private elementary or secondary school that serves students from low-income families. As a condition for receiving a TEACH Grant, the student must complete entrance counseling and sign a TEACH Grant Agreement to Serve or Repay in which the student agrees to teach for at least four complete academic years within eight calendar years of completing the program of study for which the student received a TEACH grant. IMPORTANT: If the student fails to complete their service obligation, all amounts of TEACH Grants that the student received will be converted to a Federal Direct Unsubsidized Loan. The student must then repay this loan to the U.S. Department of Education. Interest will be charged from the date the grant(s) were disbursed. Please see Student Financial Services for details about student eligibility requirements and approved teaching programs.

#### **State Grants and Scholarships**

Several states provide grant and scholarship money that can be applied towards educational costs. Some states do not allow their funds to be used out of state. ENC may not receive notification of the award until after school begins. Consequently, students should be aware that aid may be adjusted when the official notification is received from the state agency. Generally, only the FAFSA is required for students to be considered; however, some states may require other forms. Students should check with their state Department of Education or local secondary school guidance office on this matter. State

deadlines can be as early as March 1. May 1 is the application deadline for many state grant programs; however, students should check the Deadlines for State Student Aid section of the FAFSA instructions to be sure about state deadlines.

#### **Armed Forces/Veterans Benefits**

Eastern Nazarene College works closely with our active armed forces and veterans. We work with our service members to maximize their benefits at ENC. We are an accredited college that qualifies for receiving all benefits offered by the government to private colleges. ENC fully participates in the Yellow Ribbon Program and gives full tuition and fees to eligible students that qualify for the Yellow Ribbon Program. Students must submit a current Certificate of Eligibility to the Certifying Official in order to receive benefits. Enrollment benefits are certified within four weeks of the first day of classes (fall, spring, or summer semesters) in order for the student to receive their housing and books money from the VA (sent directly to student's home address from the VA). Tuition benefits (funds that are sent directly to the college) are certified after the semester class drop deadline.

In accordance with Sec 103 of the Veterans Benefits and Transition Act of 2018:

Eastern Nazarene College permits any *covered individual*\* to attend or participate in the course of education during the period beginning on the date on which the individual provides to the educational institution a certificate of eligibility for entitlement to educational assistance under Chapter 31 or 33 (a "certificate of eligibility" can also include a "Statement of Benefits" obtained from the department of Veterans Affairs' (VA) website — eBenefits, or a VAF 28-1905 form for Chapter 31 authorization purposes) and ending on the earlier of the following dates:

- 1. The date on which payment from VA is made to the institution.
- 2. 90 days after the date the institution certified tuition and fees following the receipt of the certificate of eligibility.

\*A covered individual is any individual who is entitled to educational assistance under Chapter 31 Vocational Rehabilitation and Employment, or Chapter 33, Post-9/11 GI Bill® benefits. "GI Bill® is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the official U.S. government Web site at https://www.benefits.va.gov/gibill."

Eastern Nazarene College does not penalize Chapter 31 or 33 students if/when the VA is late making payments. Eastern Nazarene College does not have any policies in place that would do any of the following while waiting for VA payments:

- Prevent enrollment
- Assess a late penalty fee
- Require alternative or additional sources of funding
- Deny access to school resources

In order to prevent outstanding student accounts, Chapter 31 or 33 students must:

- · Submit a COE or Statement of Benefits by the first day of classes
- Submit a written request to be certified
- Provide any additional information needed for certification.

#### ENC INSTITUTIONAL SCHOLARSHIPS AND GRANTS

ENC institutional scholarships and grants are awarded to students meeting the eligibility criteria stated for each separate scholarship. Scholarships and grants do not have to be repaid. Awarding preference will be given to students who apply by the priority deadline, which is generally stated as six months prior to registration, and specifically stated as December 1 for the fall semester, and August 1 for the spring semester. It is to be understood that all institutional scholarships and grants have funding limits, and awards may not be available to students applying late, even though they may fit the stated criteria of the award. Please note that the total amount of ENC grants and scholarships cannot exceed the tuition charges. **Off-campus study opportunities can affect ENC institutional scholarships and grants.** Off-campus study opportunities will make you ineligible for institutional aid that semester. Please see Off-Campus Study Opportunities under Academic Information and Policies for important information about how each program impacts your institutional aid.

All institutional aid is awarded based on a student being full-time status (12+ credits) for a semester. May/Summer term credits do not count toward your full-time status for a particular semester. Awards are not prorated for less than full-time status. If the student withdraws from a class after the census date, they will retain their institutional status for that semester. Institutional aid can come from a variety of funding sources. Therefore, a student may see specific scholarship names change but the total amount of non-merit award amount will not decrease.

#### ACADEMIC SCHOLARSHIPS FOR FIRST-YEAR STUDENTS

All ENC academic scholarships are renewable for up to four years as long as the student is maintaining satisfactory academic progress according to the institutional SAP policy.

#### President's Scholar

Recipients of the President's Scholarship will receive \$15,000/year. A typical President's Scholar will present a high school grade point average of 3.7 or above and possesses an extremely strong high school record.

#### Trustee's Scholar

Recipients of the Trustee's Scholarship will receive \$12,500/year A typical Trustee's Scholar will present a high school grade point average between 3.3 and 3.69 and will have a strong high schoolrecord..

#### Dean's Scholar

Recipients of the Dean's Scholarship will receive \$10,000/year. A typical Dean's Scholar will present a high school grade point average between 2.8 and 3.29.

#### ACADEMIC SCHOLARSHIPS FOR TRANSFER STUDENTS

These scholarships are offered for up to four years as long as the student is maintaining satisfactory academic progress according to the institutional SAP policy.

Scholarship	Transfer GPA	Amount
President's (Transfer)	3.50 - 4.00	\$15,000
Trustee's (Transfer)	3.00 - 3.49	\$12,500
Dean's (Transfer)	2.50 - 2.99	\$10,000

#### NON-ACADEMIC GRANTS AND SCHOLARSHIPS

In addition to these Academic Scholarships, ENC provides a wide variety of other grants. Information submitted by each individual allows our financial aid professionals to construct a financial aid package for each student. All of the following awards may be renewed for up to four years as long as the student maintains eligibility.

#### **Nease Grant**

Awards are given to students based on evaluation of their merit and financial need at the time of admission. The Nease Grant is awarded to help meet financial need. This grant is re-awarded each year as long as the student maintains full-time student status each semester. Significant change in the family's EFC could increase or decrease the grant in subsequent years.

#### **Multiple Student Scholarship**

Families with more than one dependent child enrolled full-time at ENC simultaneously are eligible to receive a scholarship amounting to \$1,000 per eligible student for the current academic year. Graduate students and non-traditional undergraduate students are not eligible for the Multiple Student Scholarship.

#### **Dependent of Preacher or Missionary Scholarship**

The Dependent of Preacher or Missionary Scholarship is given to children of pastors, chaplains, missionaries and evangelists in full-time service. This scholarship is a four-year award (up to eight semesters), and is divided equally between fall and spring semesters (\$2,000 annually, \$1,000 per semester). It will be renewed each year contingent upon full-time enrollment at ENC.

#### **Nazarene Student Grant**

An award of \$5,000 is in recognition of a student's involvement with the Church of the Nazarene. This scholarship is a four-year award (up to eight semesters) and is equally divided between fall and spring semesters. It will be renewed each year contingent upon full-time enrollment at ENC.

#### **Church Matching Grant**

ENC will match a scholarship check awarded by a church of any denomination up to \$500 once per year.

#### **Endowed and Annually Funded Scholarships**

Endowed and Annually Funded Scholarships are awarded to students who meet the eligibility criteria established by each scholarship donor. These eligibility criteria for each scholarship may include merit and financial need, class year, major, and GPA. Because these scholarships are typically awarded by ENC's Scholarship Committee during the fall semester, students are strongly encouraged to submit the FASFA no later than six months prior to registration. These scholarships are not awarded for off-campus study opportunities, and some may require full-time attendance and maintenance of a certain GPA.

After all endowed and annually funded scholarships are awarded, thank you notes will be required before the scholarships will be disbursed.

# MAINTAINING YOUR FINANCIAL AID ELIGIBILITY – SATISFACTORY ACADEMIC PROGRESS

Eastern Nazarene College has the following Satisfactory Academic Progress (SAP) Policy for students who receive financial aid. These standards require that a student progress toward an undergraduate degree during all periods of enrollment, including periods when a student did not receive federal, state, and/or institutional financial aid. Eastern Nazarene College will be consistent in applying the SAP policies to full-time, part-time, independent, and dependent students.

#### The Minimum Financial Aid SAP Standards are:

- Maintain required Cumulative Grade Point Average (CGPA) based on matrix below, or higher (a qualitative measure) and
- Successfully complete at least 67% of the cumulative attempted credit hours(a quantitative measure) **and**
- Make positive progress toward a program of study within 150% of the average published program length.

#### **Undergraduate Students required CGPA**

Total Number of Credits Hours Attempted	Minimum Cumulative GPA
0 – 32.9	1.7
33.0 – 48.9	1.8
49.0 – 63.9	1.9
64.0 or more	2.0

#### The Financial Aid Eligibility Statuses are:

- Eligible Student is meeting the minimum academic standards or has no academic history. Student is fully eligible for financial aid.
- Warning Student did not meet minimum standards for CGPA and/or 67% completion rate in the previous evaluation period. Student remains eligible for financial aid, but must reach all minimum standards by the end of the next evaluation period to maintain eligibility.
- **Ineligible** Student has had two consecutive evaluation periods below minimum standards for CGPA and/or 67% completion rate. Student is **ineligible** for financial aid.
- Timeframe Students seeking an AA/AS degree must complete the AA/AS requirements within a maximum number of credits attempted (including transfer credits) of 93.
  - Students seeking a bachelor's degree must complete the BA/BS requirements within a maximum number of attempted hours of at least 186 credit hours including transfer hours. If a student exceeds or cannot attain these credit hour limits, they are not making progress toward a degree within the 150% federal requirements; therefore, student is **ineligible** for financial aid.

New students with prior academic history will be evaluated at the time they apply for financial aid.

#### When is Academic Progress Evaluated?

A student's SAP will be evaluated at the end of each academic semester or term (i.e., fall, spring, and summer semesters).

**Successful completion of a class** is defined as earning **Passing Grades**: A, B, C, D, S. **Unsuccessful completion of a class** is defined as earning **Non-Passing Grades**: F, W, NC, U, I.

**Transfer Students and Transfer credit hours:** Students transferring to Eastern Nazarene College are required to have all prior college transcripts evaluated for transfer credits. All credit hours accepted by Eastern Nazarene College will be used to determine 67% completion rate and maximum timeframe of 150%.

### Grades toward Attempted Credits and GPA:

Course Type & Grade	Included in Attempted Credits*	Included in GPA Calculation*
Passing Grades: A-D	Does count	Included
Passing Grades: S	Does count	Not Included
Non-Passing Grades: F	Does count	Included
Non-Passing Grades: U, W, I	Does count	Not Included
Non-Passing Grades: NC	Does count	Not Included
Course Dropped by Add/ Drop date	Does not count	Not Included
Audited Courses	Does not count	Not Included
Repeat Courses	Does count	Only highest grade
	(each time)	is included

### **Repeat Courses:**

- Non-Passing F/U: A course with a Non-Passing grade of F or U can be repeated as
  many times as the college chooses to allow, and the student will receive all eligible
  financial aid.
- Passing Grade A–D, S: A course with a Passing grade of A–D or S can be repeated
  as many times as the college chooses to allow; however, the student can only receive
  financial aid for the first repeated attempt.
- Each repeat course will be used in determining completion rate (attempted credit hours) and timeframe.
- Only the course with the higher grade is used in calculating the student's GPA when
  a course is repeated. The repeat course is only included once in the cumulative GPA
  calculation.
- NOTE: Each repeated course contributes to the total attempted credits for financial
  aid purposes and also to the federal SAP GPA calculations. A high number of
  repeated courses could jeopardize a student's financial aid eligibility based on
  progress toward completing a program of study within 150% of the average
  published program length as well as successfully completing at least 67% of the
  cumulative attempted credit hours.

**Audited Credit Hours:** Courses taken on an audit basis are not counted when determining the completion percentage or for purposes of determining your cumulative GPA.

### How to Re-establish Eligibility:

A student must bring their GPA and completion rate up to the minimum standards
of the required CGPA, per matrix, and 67% completion rate. A student will be
ineligible for financial aid and cannot be reimbursed during this time.

- Mitigating Circumstances: If a student has experienced mitigating circumstances (illness, family illness, change of major) during the most recent evaluation period, they may submit an Appeal to reinstate financial aid eligibility. The student must explain, in the appeal, what has changed that will now allow them to meet the SAP requirements. The student must also submit supporting documentation with the appeal. In addition, the student must work with the Center for Student Enrichment (CSE) to complete an Academic Success Plan to be reviewed and approved by their academic advisor and Student Financial Services.
- If the request is granted, the student will be placed on one of two Financial Aid Eligibility Statuses:
  - i. Probation The student is expected to improve to minimum standards by the end of the next evaluation period. The student is eligible for financial aid but must meet minimum standards by the next evaluation period. A student cannot be on probation for two consecutive semesters.
  - ii. Academic Success Plan The student cannot be expected to improve to minimum standards by the next evaluation period. The student and Eastern Nazarene College have agreed to a success plan to allow the student to meet minimum standards within a fixed number of evaluation periods. The student is fully eligible for financial aid as long as they are strictly following the success plan. If at any time the student stops following the success plan, and they are not meeting the minimum standards, they will become ineligible for financial aid. If a student meets minimum standards at any time while on a success plan, their Financial Aid Eligibility status will be updated to eligible.
- If the request is not granted, the student will remain ineligible for financial aid until
  they meet all minimum standards.
- Timeframe Mitigating Circumstances: If a student has not completed their program
  of study within the 150% timeframe and there are mitigating circumstances (illness,
  job related, family illness, change of major), they may submit an appeal to reinstate
  financial aid eligibility.
- If this application is granted, the student will be placed on the following Academic Eligibility Status:
  - i. Timeframe Academic Success Plan The student and Eastern Nazarene College have agreed to a success plan. The student is fully **eligible** for financial aid as long as they are strictly following the success plan. If at any time the student stops following the success plan they will become **permanently ineligible** for financial aid.
- If the request is not granted, the student will remain **ineligible** for financial aid.
- All students are limited to one Timeframe Academic Success Plan.

Students will be notified by email, of their SAP status, at the end of each semester.

# STUDENT ACCOUNT INFORMATION

Our mission is to provide excellent customer service and information to our students, the Eastern Nazarene College community, and all outside constituents, in order to achieve a clear and clean financial picture and enable paid in full status on all accounts. Information related to various payment options offered by the college may be obtained from Student Financial Services and is included below.

All financial arrangements must be completed prior to registration. Registration cannot be completed until all financial obligations are cared for and clearance is given from Student Financial Services. Failure to maintain the agreed upon financial plan may result in disensellment.

### **TUITION AND FEES FOR 2023–2024**

	Fall	Spring	Total
Tuition:	\$13,675	\$13,675	\$27,350
Student Fee Technology	\$500	\$500	\$1,000
Student Fee: Campus Life	\$130	\$130	\$260
Housing (Normative)	\$2,507	\$2,508	\$5,015
Meals (Normative)	\$3,168	3,167	\$6,335
Total: Residential	\$19,980	\$19,980	\$39,960
Total: Commuter	\$14,305	\$14,305	\$28,610

#### Tuition

Students must be enrolled for 12–17 credits per semester to be billed at the block tuition rates shown in Tuition and Fees for 2023–2024. Students enrolled for less than 12 credits per semester will be billed at part-time tuition rates. Students enrolled for more than 17 credits per semester will be charged an additional per-credit fee, as this is considered a credit overload. Tuition/Student Fee does not include health insurance fee.

#### Per Semester

0.5-11.5 Credit Rate - per credit hour:	\$1,140
12-17 Credit Block:	\$13,675
17.5+ Over-Load - per credit hour:	\$570

#### **Student Fees**

Charged each semester to students and does not include health insurance.

	Fall/Spring
0–3 credits	\$0
3.5–7.5 credits	\$480
8 credits and over	\$630

#### **Room and Board**

Charges will vary depending on room chosen. Instructions are available on the Eastern Nazarene portal (portal.enc.edu) under the Student Accounts page.

#### Other Possible Fees:

Audit Fee:	\$1,709
Audit Fee: Senior citizens / Pastor	\$110
Summer Tuition – per credit hour	\$405

Health Insurance Fee – per year, charged in fall term for annual amount	\$2,328
Room Reservation Fee for current students	\$75
Mailbox Key deposit	\$35
Diploma and Graduation Fee	\$100
Late Registration Fee	\$100
Course Withdrawal Fee – per class after add/drop deadline	\$25
Late Filing of Degree Candidacy – late junior year, late senior year	\$25, \$50
New Diploma with new degree date	\$25
Transcripts (other fee rates for special circumstances,	
see transcript form or Parchment)	\$5
Lab Fees – varies per class	\$35 to \$375
Business Week Subscription – small charge once a year to	
Business majors or students taking a business course (subject to change)	\$26
PE Activity (PE222) per class	Varies
Private Instruction – Music (one credit hour)	\$275
Private Instruction – Music (two credit hours)	\$475
Music Private Instruction – practice room, once per semester	\$50
Organ Rental – per semester	\$50
Independent Studies / Directed Studies Fee – per course	\$275
Internship Supervision Fees – based on number of credit hours	
0–3 credits	\$100
4–6 credits	\$125
7–9 credits	\$150
10–15 credit	\$175

#### **BOOKS AND OTHER FINANCIAL EXPENSES**

All undergraduate students are able to rent required textbooks from ENC's service provider, Slingshot. For students enrolled with Slingshot's service, an Educational Resource Fee charge of \$15 per credit hour will be charged to their account. Textbooks are issued in the most affordable form available; most commonly, this means that textbooks are issued digitally. However, for students interested, Slingshot offers a print upgrade service that enables print versions of required texts to be rented, when available, for an additional charge of \$9.99 per credit hour (for those courses in which a digital book is able to be upgraded to a print book). For students wanting print-upgrade, an opt-in request must be submitted before that semester's upgrade deadline. Note that the waiver deadline and the print-upgrade deadlines are different dates. All students are automatically enrolled into Slingshot's basic service unless a waiver is submitted (through the opt-in/opt-out form made available to students) before that semester's waiver deadline. Once completed, a student's waiver will remain in place for every future semester of their enrollment at ENC unless the student notifies Student Financial Services (SFS) that they wish to resume having materials provided by Slingshot. SFS can help clarify issues related to charges and the opt-in/opt-out form. For other areas of concern regarding textbooks, students are encouraged to log into their Slingshot portal at https://ENC.Slingshotedu.com and/or to email Textbooks@enc.edu.

### **COURSE ADD/DROP FINANCIAL POLICY**

Courses must be officially added or dropped by submitting forms through the Registrar's

Office and obtaining the advisor's signature, or through action via the student portal. Changes to the student's course schedule will be processed without a fee during the first two weeks of the semester (the add/drop period). If adding or dropping classes changes your full-time/part-time/course-overload status, you will be billed according to credit hour rates. Please refer to the Financial Aid section to see how full-time/part-time status affects your federal and institutional aid.

### COURSE WITHDRAWAL FINANCIAL POLICY

There is no refund for a course withdrawal if it falls after the add/drop deadline. A course withdrawal is considered an attempted credit and thus it will not affect your full-time/part-time status. The effective date of any withdrawal is the last date of attendance or academic activity. After the Add/Drop deadline, a course then becomes a Course Withdrawal. A \$25 fee will be charged for each withdrawal from a course.

### WITHDRAWAL FROM COLLEGE

#### **Tuition Refund**

For students officially withdrawing from school during the semester, the following refund policy applies to tuition, fees, housing and meals:

### Traditional Undergraduate Semester

Days Used	Refund Pct
1-7	100%
8-14	75%
15-28	50%
29+	0%

The housing and meals refund policy also applies to students who move out of campus housing but continue their enrollment online or as a commuter. The official withdrawal date is the student's last date of attendance or academic activity. The Withdrawal from College Form must be completed in its entirety and have all the requested signatures of school officials. These refund policies conform to the requirements of the Higher Education Act Amendments of 1992. If a recipient of financial assistance withdraws and is scheduled a refund, all or part of this refund will be used to reimburse the financial aid program from which the student received funds. Music lessons: No refund after the last day to drop a class without approval of the ENC Music Director.

#### **Financial Aid Issues**

When a student withdraws (or is withdrawn) from school prior to the end of a semester, a prorated amount of the student's institutional scholarships and grants will be withdrawn from the student's account, based upon the above-stated policy. Additionally, Title IV federal and state financial aid will be repaid to the appropriate program(s) as mandated by regulations published by the U.S. Department of Education. Title IV refunds will be repaid in the following order: Federal Direct Loan Program, Federal Pell Grant Program, and other student financial aid. Note: The grace period associated with the repayment of federal loans begins to expire from the date of the withdrawal. Students who do not formally withdraw by submitting the Withdrawal from College Form run the risk of losing refunds based on the previous chart. The college cannot guarantee these refunds if the student does not follow the proper procedure.

- 1. If you are withdrawing from Eastern Nazarene College during the semester:
  - If you have received any type of federal student aid (Pell, loans, FSEOG), ENC is required to return some or all of your federal student aid back to the U.S. Dept. of Education. Other aid, such as state, institutional aid, and private loans may also be reduced/ returned. This could very well result in you owing a balance to ENC. We strongly encourage you to speak with one of our Financial Aid representatives to determine how your withdrawal will affect your federal, state, and institutional aid and how that may affect your overall balance.
  - If you are withdrawing from ENC to attend another college, in order to receive transcripts, your student balance needs to be paid in full. Please see one of our Student Account representatives to ensure your balance has been paid in full in order to facilitate a smooth transition to your new college.
- 2. If you are withdrawing from Eastern Nazarene College at the end of a semester and not planning on returning to ENC: This will not affect your financial aid in any way.

A copy of the full Return to Title IV policy is available from Student Financial Services upon request.

#### LEAVE OF ABSENCE

In the event that there is a necessary interruption of scheduled attendance, the student must submit an academic petition to the Registrar's Office prior to the start of the leave. A leave of absence may be granted during a semester upon approval of the Academic Standing Committee, in which case a refund calculation will be done, or one may be granted before a semester begins. Leaves of absence will be reviewed on a case-by-case basis: a written doctor's request based on maternity or mental or physical health may generally be approved for a 60-day leave of absence.

A student who has been granted a leave of absence is not considered to have withdrawn from school. Students failing to request a leave of absence in writing or who were denied such a request will be considered to have withdrawn for purposes of Title IV and institutional financial aid purposes. This is a very important distinction since the grace period associated with the repayment of federal loans will begin to expire from the date of withdrawal. If a student fails to return from an approved leave of absence, a withdrawal date will be predated to the last recorded date of class attendance. This date will be reported to the student's lender and the National Student Loan Data Service (NSLDS) via the National Student Loan Clearinghouse (NSLC) regardless of whether the student subsequently withdraws officially (by notifying the school) or unofficially (by not renewing attendance at the time designated on the official leave of absence form).

# Methods of Payment and Account Regulations

- 1. Acceptable methods of payment are as follows:
  - a) Payment in full Payment may be made by cash, check, or personal money order. Payments will also be accepted online for credit/debit cards with a convenience fee added. ACH electronic payments from a savings or checking account will not be charged a fee.

- b) Advance Payment The college will establish a reserve account in the name of any prospective student. The amount in reserve can be refunded if a change in plans becomes necessary, except for nonrefundable fees.
- For students and parents desiring to pay educational expenses in monthly installments, an interest free payment plan is offered through the ENC online portal.
   Please call Student Financial Services for more information.
- 2. All charges are due and payable at the time of registration at the beginning of the semester or term, unless 1c) is applicable. Checks should be made payable to Eastern Nazarene College, with the student ID number on the check. An itemized statement will be available on the student portal and electronic notifications sent to the student's ENG email address.
- 3. Where financial aid has been awarded, the balance is calculated after deducting such awards. Federal Work-Study is not deducted.
- 4. Any financial arrangement between the college and its students will be binding only if such agreement is in printed or written form. Any arrangements concerning finances should be made with Student Financial Services.
- 5. The College adds a \$100 late payment fee thirty days after the first day of classes for any unpaid balances. If the balance is to be paid by a federal or state grant, these charges will be reversed when the federal or state grant funds are received at ENC.
- No student may participate in graduation until all accounts are paid in full. Payments
  must be made by cash, cashier's check, certified check, credit card, or personal
  money order.
- 7. Any student who has become delinquent through failure to make payment or proper financial arrangements may be un-enrolled until such matters are satisfactorily taken care of with Student Financial Services. Any unpaid balance is seen as an education loan from ENC when bankruptcy is being considered. Thus, the unpaid balance is not dischargeable.
- Past Due Balances: ENC services will be withheld, including but not limited to, registration, grades, transcripts, and diplomas. Once the account is paid in full, the hold will be automatically removed.
- 9. Transcripts will not be released for any student owing a past due balance. This is without exception.
- 10. All debt not paid in a timely manner may be referred to a collection agency and may be reported to the Credit Bureau. If you feel the charge is in error, please contact Student Financial Services to avoid collection agency action. If it is deemed necessary to refer the account to an agency, the debtor (student) will be responsible for all collection costs and legal fees. Once the account has been assigned to an outside agency, please contact the collection agency to discuss your account. For further information concerning payment of student accounts, contact Student Financial Services in Gardner Hall at 617-745-3712 or sfs@enc.edu.

# STUDENT LIFE INFORMATION

# Student Life

#### **OVERVIEW**

The work of the Division of Student Life is designed to cultivate a student experience and campus environment in which every student and all students can thrive. This division oversees services, programs, and campus initiatives that affect the entirety of the life of the student. The Vice President for Student Life, along with the Student Life Leadership Team, lead the division.

#### **OUTCOMES**

The efforts of the Student Life team are designed to promote the following outcomes in the life of each student:

- Student growth
- Student success
- Student wellbeing
- Student belonging

#### **TEAM**

The Student Life team consists of full-time and part-time professional and graduate assistant staff. This team is highly educated in the work of student affairs, with almost every team member holding or currently earning a master's degree in a relevant field and with most department leaders holding earned doctorates.

Student Life is committed to creating an environment conducive to learning and engagement within the community.

Student Development includes the following departments:

- Center for Student Enrichment (Tutoring, Disability Support Services, Career and Calling)
- Student Engagement (Student Government Association, Student Programs, Student Leadership)
- Multicultural Affairs
- Office of Safety and Security
- Residential Life
- Student Conduct
- Student Center Operations (Mail Services, Campus Store, Dining Services)
- The Brickley Center for Student Wellbeing (Counseling and Health Services)
- Sexual Violence Prevention and Response

### Athletics

ENC considers athletics and physical education an integral part of undergraduate life. To foster this component of a student's formation, each student participates in the physical education program for the equivalent of two credit hours. This is to provide exercise, as well as, to develop interest and skill in sports that can be enjoyed for life. The General Education requirement is met with a two credit Theory of Wellness class. Athletes may substitute participation on a varsity team for required Physical Education.

#### ATHLETIC FACILITIES

Lahue Physical Education Center, Bradley Field, and the Waterston Tennis Courts are provided exclusively for the use of the ENC community. Priority is given to academic classes and varsity athletic activities.

#### INTERCOLLEGIATE ATHLETICS

The Lions, ENC's intercollegiate teams, add spirit to the campus. Varsity sports for men include baseball, basketball, cross country, golf, lacrosse, soccer, tennis, and volleyball. Women's varsity teams include basketball, cross country, soccer, softball, tennis, and volleyball. Christian sportsmanship is in keeping with ENC's ideals and objectives. Besides sportsmanship, another important ingredient of a good athletic program is the loyalty of students and staff. Students are encouraged to take an active part in the intercollegiate program by participating and sharing enthusiasm. ENC is a Division III member of the National Collegiate Athletic Association (NCAA) and with membership in the North Atlantic Conference. To participate in the athletic program of the college, scholastic standards must be maintained. ENC follows eligibility rules as set forth by the college and NCAA Division III. Students that graduate from ENC's undergraduate program that have remaining athletic eligibility are able to participate in athletics if pursuing a master's degree at ENC in a full-time capacity. All questions of eligibility should be referred to the Director of Athletics.

#### INTRAMURAL SPORTS

The Student Government Association, in conjunction with the Student Engagement Office, facilitates intramural seasons for students of all skill levels. All participants in intramural athletics must be classified as undergraduate students, full-time faculty, or full-time staff. For part-time students to participate, they must be registered for at least eight credits in the given semester and pay the student activity fee for each semester in which they participate. Varsity athletes are eligible with the expressed permission of their respective coach.

For more information please contact SGA@enc.edu or visit the SGA Office in the Mann Student Center.

# The Brickley Center: Counseling and Health Services

Located behind Gardner Hall at 104 Willow Street, the Brickley Center provides mental health counseling and health services to all students.

#### **COUNSELING SERVICES**

The Brickley Center offers a hybrid model of treatment (telehealth and InPerson Sessions) to support the social-emotional well-being of undergraduate students. In a collaborate effort between a licensed clinician and client, mental health needs are discussed and supported. If you are interested in learning more about Counseling Services, students are welcome to call or come by the Brickley Center. Services are offered at no extra charge to traditional undergraduate students and services are confidential.

### HEALTH SERVICES

The campus nurse promotes health on campus by providing basic assessments, first aid,

and health and wellness education. The nurse can also assist a student in determining if the student needs to see a doctor and in making an appointment to be seen at an off-campus clinic or physician's office. The Health Services office collects and keeps confidential the required health and immunization records of students.

#### HEALTH INSURANCE

All students who are registered in semester length courses, with an enrollment status of at least ¾-time, are required to purchase the ENC provided Student Health Insurance Plan unless they submit a waiver that demonstrates that they are covered by a US-based or Embassy-Sponsored insurance plan with coverage equal to or better than the ENC Student Health Insurance. International insurance plans, travel insurance plans and plans not fully compliant with the Affordable Care Act are not deemed comparable. If a student chooses to submit a waiver, the student must be sure that their insurance will provide coverage to be treated by medical and mental health providers in the area reasonably near the ENC campus. A waiver may be reviewed by ENC to verify coverage. During the review, if the insurance company indicates that the coverage is not equal to or better than the ENC Student Health Insurance, the waiver will be denied. If a waiver is denied at any time, the student will automatically be enrolled in and billed for the Student Health Insurance Plan Student Health Insurance Plan benefits, exclusions and limitations are outlined in a brochure available online and at the Brickley Center.

### Commuter Services

There are a number of avenues provided for commuter students to become fully engaged with the campus community. Commuter students have access to Munro Parlor, Spange Parlor, and Memorial Underground, the 24-hour study lounge in the library, and Lahue Athletic Center. Spaces are provided in the Mann Student Center for commuter students to reserve lockers to secure their belongings throughout the course of the day. Students must register for a locker free of charge through the Residential Life & Housing Office. Commuter students can also engage in ENC Dining by utilizing Cub Cash or selecting a Commuter Meal Plan. Questions and concerns regarding commuter services can be directed to Jacob Hafler, Director of Student Engagement and Transitions.

# **Dining Services**

ENC Dining is managed by Sodexo at Eastern Nazarene College. This food services program is delivered through three venues. The Dining Commons is the main venue and is located on the second floor of Mann Student Center. The Dugout, an alternate dining option with grill-based menu, and Hebrews Café are both located on the first floor of the Mann Student Center.

ENC and Sodexo Dining partner together to provide our students with meal plans and options. Residential students are required to participate in the Continuous Access Unlimited Meal Plan, allowing students to eat anytime between 7am and 7pm at their convenience. The Continuous Access Unlimited Meal Plan also includes transfer meals and dining points, for use in the the Dugout or Hebrews Café. Commuter students have access to several meal plans to meet their specific needs and schedules. Commuter students can also purchase Cub Cash Dollars.

For more information, including hours of operation, visit https://enc.edu/student-life/dining/.

# Multicultural Affairs Mission

Eastern Nazarene College seeks to promote, create and sustain a community which recognizes and respects the presence of diverse groups, acknowledging and valuing their socio-cultural differences, and will seek to encourage and enable their contributions which empower all. It is to affirm the biblical vision of the Kingdom of God, in which people from "every tribe and language and people and nation" are gathered, purchased by Christ's sacrifice (Revelation 5:9).

The Multicultural Affairs Office at our College organizes various events such as lectures, seminars, and discussion groups to educate and raise awareness about social and cultural issues related to race, ethnicity, and culture. Additionally, the College incorporates the value of cultural humility throughout its curriculum, worship services, and general programming, while recognizing and celebrating the complexities and richness that come with a diverse community.

# Residential Life

Eastern Nazarene College is committed to being a residential college and believes the residential experience enhances the students' total college experience. The purpose of Residential Life at ENC is to provide a living/learning environment that encourages holistic student development in the everyday living experiences of students. Living in the residence halls at ENC encourages students to grow spiritually, personally, and professionally as they live and learn together in an intentional environment that fosters student success.

The six residence halls are Spangenberg and Williamson for women; Memorial and Shields for men; and Young for male and female upperclassmen.

# Student Accountability

The behavioral standards to which community members are held are published in the Student Handbook. These community standards, rooted in our Christian values and holistic care philosophy, are designed to foster a campus community in which individual needs and desires can be met without negatively impacting personal or communal well-being. Should a student be alleged to have violated one of these standards, they will participate in an authentic and transparent process that provides an opportunity for accountability, care, and growth. For more information regarding Community Standards or the Community Accountability process, please contact the Dean of Students.

# Student Life Opportunities

Students are encouraged to participate in an array of student leadership opportunity, service experiences, and social or cultural clubs and organizations.

### STUDENT GOVERNMENT ASSOCIATION (SGA)

The Student Government Association represents the student body to the Board of Trustees, administration, faculty, and staff of the college through a democratic form of student government. Student Government is comprised of an Executive Council and Class

Councils. The SGA fosters school spirit by encouraging extracurricular activities and supporting campus chartered clubs, student organizations, and ministries.

Extracurricular activities provided by the SGA include intramurals, concerts, game shows, and other exciting activities.

#### STUDENT CLUBS AND ORGANIZATIONS

The SGA supports the creation of ministries, clubs, and organizations to serve the needs and interests of the students. Academic clubs including the Shrader Club and Honors Society are available to students through SGA. Campus organizations include Black Student Union, Latino Student Association, Commuter Council, and International Student Organization. More information including the full list of clubs and organizations is available through SGA.

### STUDENT MINISTRIES

The Office of Spiritual Development hosts a number of opportunities for students to participate in small groups, service teams, and ministry opportunities.

### RESIDENTIAL LIFE

The Residential Life team includes professional staff, paraprofessional staff, and student leaders (Resident Assistants). Students are encouraged to participate in residence life programs and events for community-building and personal growth or formation. The Resident Assistant program provides meaningful opportunities for leadership development and life skill development.

#### MUSIC

Students with talent for music have many opportunities for participation in the various music organizations: Voices of Worship, Worship Teams, A Cappella Choir, Gospel Choir, Pep Band, Symphonic Winds, Choral Union, etc. Students can also participate in private musical lessons, often for credit, in voice and a variety of musical instruments.

#### COMMENCEMENT

Commencement exercises are held in May of each year. In addition to the Commencement ceremony, a Baccalaureate worship service is held before commencement and the Phi Delta Lambda Honor Society meets to induct qualified seniors into the graduate honor society.

# Campus Safety and Security

ENC is committed to providing a safe and secure environment for the college community. While ENC historically has enjoyed an extremely low crime rate, extensive precautions are still taken in an effort to maintain a safe campus environment, reflecting an awareness of what the world about us is like. In any emergency, a security officer can be contacted by anyone at any time, day or night, by simply dialing extension 3911 on college phones located strategically in the residence halls and throughout the campus, or dialing 617-745-3911 from a mobile phone.

The safety/security guards work to proactively prevent security or safety concerns, as well as to respond promptly and effectively to any concerns. Additionally, as a reflection of the College's commitment to student safety and well-being, a number of policies and practices have been adopted.

Residence hall security is further enhanced through card-access secured residence hall doors and, in some buildings, corridors. This is designed to greatly reduce the opportunities for unauthorized individuals or intruders to gain entrance. Security officers monitor residence hall entrances and exits to ensure that they are secure at all times. In addition, residential life and safety/security staff conducts regular safety inspections of every residence hall room as well as all other campus buildings in an attempt to assure clear emergency egress is maintained, all fire extinguishers and smoke alarms are in place and in operating condition, and there are no other obvious safety hazards. Special efforts are also made to educate students about individual responsibility for personal safety. This is, and always will be, the primary source of any individual's ongoing security. Information regarding overall campus safety, personal security, rape and rape avoidance, state laws and college rules relating to alcohol, drugs, tobacco and firearms is distributed during registration and is always available to all students.

All freshmen are required to attend lectures and view presentations relating to these topics in addition to having briefings concerning general campus familiarization. Notices concerning current safety and/or security concerns are also posted on bulletin boards and emailed to the student body to help keep all students alert and aware.

Finally, we trust that students' sense of responsibility and independence taught during their high school years has increased to the point where they are now used to making responsible personal decisions concerning their own attitudes and actions. If so, they will be well prepared to handle the comparatively unrestricted freedom of a residential college situation. While ENC cannot guarantee the safety of each and every student, all reasonable precautions have been taken to enhance campus safety. This effort is made because we all live in a world where crime, violence, or unexpected accidents and injuries, can and do occur all too frequently.

### STUDENT RIGHT-TO-KNOW AND CAMPUS SECURITY ACT

The Student Right-to-Know and Campus Security Act of 1990 mandates that records be kept and disclosed on campus crimes such as murder, rape, robbery, aggravated assault, burglary, and motor vehicle theft, considered to be a threat to other students and employees and reported to campus security or to the local police. In addition, institutions must report the number of arrests for the following crimes: liquor law violations, drug abuse violations, and weapon possessions. This act helps institutions not only keep and disseminate statistics for information and prevention purposes but also involves the distribution of information on policies related to campus security. ENC encourages students and employees to promptly report crimes to the Director of Safety and Security. For specifics on crime statistics, policies, and programs, please refer to https://enc.edu/about/college-profile/consumer-information/safety-security/.

#### WEAPONS

Possession of firearms, air guns, BB guns, hunting knives, wrist rockets including slingshots, or weapons of any kind on campus is expressly forbidden. Possession or use of any of the above, as well as fireworks or explosive devices of any type, will result in confiscation, severe fines, possible legal action, and disciplinary action up to and including suspension or expulsion.

#### MOTOR VEHICLE REGISTRATION/PARKING

All students who possess vehicles, including commuter students, are required to register their vehicles each semester with the Office of Safety and Security. Students are encouraged to take advantage of on-campus parking. Spaces are limited and will be based on a first-come, first-served system. Parking hangtag charges are included in the student fees. Freshmen are not eligible for student parking (except in rare circumstances). The current parking pass allows students space in the student lot at the corner of Wendell Avenue and Waterston Avenue, with commuter student parking available in the lot at the corner of Sachem Street and Wendell Avenue.

Massachusetts State Law requires students with out of state registered vehicles here to obtain an official Mass DMV OOS Decal for your car. All required forms can be obtained at the Office of Safety and Security in accordance with M.G.L c.90 § 3.

A campus guard will provide escort service for students or staff to the dormitories after dark and during late night hours, if requested. A call box is available for students and escorts in the Waterston parking lot. Student parking is not permitted anywhere on the main campus. Unregistered student cars may be towed away at owner's expense if parked on ENC property. Eastern Nazarene College assumes no financial responsibility for any damage or loss to a student's vehicle or its contents. Students who park on or off campus do so at their own risk. Students are encouraged to maintain adequate insurance coverage.

#### LIABILITY

Eastern Nazarene College is not liable for the loss of money or personal belongings by any person or for damage done to property. Students are strongly encouraged to carry their own personal property insurance.

# Spiritual Life

As a Christian college, Eastern Nazarene gives priority in its co-curricular program to spiritual values and to the development of Christian insight and commitment on the part of its students. This is achieved through spiritual life programs which are coordinated by the Dean of the Chapel and the Office of Spiritual Development (located on the 2<sup>nd</sup> floor of Angell Hall rooms 22 & 23), in cooperation with the faculty and staff, the Office of Student Development, the Student Government Association, local church congregations, and local Christian service organizations.

#### SPIRITUAL LIFE PROGRAM

The mission of the Spiritual Life program of Eastern Nazarene College is to provide an environment conducive to the process of spiritual transformation in each member of the college community, through an intentional, focused effort which influences every endeavor and relationship of campus life. Spiritual formation is defined as "growing in authentic Christ-likeness, which is a transforming and developmental process, by God's grace, which results in wholeness and holiness and is evidenced in service to God and others." This process is promoted in the campus community in at least the following ways:

- by cultivating the spiritual disciplines, including prayer, worship and spiritual reading;
- by purposefully modeling a community of love, justice, humility, reconciliation, support, authenticity, and civility;

- by encouraging an informed and thoughtful faith;
- by practicing faith evidenced through service;
- by fostering an environment of spiritual mentoring and accountability, and
- by striving to affirm the value of each person in the image of God, which includes an
  openness to differences as expressions of God's creative design.

The Spiritual Life program is coordinated in the college's Office of Spiritual Development, located in Angell Hall. Information concerning campus, community and church related ministries is available in the Spiritual Development Canvas course. Information concerning student-led campus ministries can also be obtained through the Student Government Association's Director of Student Ministries, whose office is located in the SGA suite in the Mann Student Center.

Chapel is the centerpiece of the Spiritual Life program on campus. In chapel, we gather as a covenant community of faith, to worship God. Through the act of worship we, the body of Christ, find ourselves encouraged, equipped, energized, and empowered by the Spirit of God for acts of loving service in the world. The Spiritual Life program seeks to help the ENC community live out its Christian faith in all settings and life circumstances, strengthen community, allow persons to respond to the Gospel of Jesus the Christ through confession of sin and affirmation of faith, and integrate social, moral, intellectual, and political issues with the Christian faith.

Each student participates in the program through attendance and participation in chapel worship services. Students may choose to participate in discipleship groups, service ministry opportunities, spiritual retreats, and missions projects to further accentuate growth toward Christ-likeness. It is the college's hope that students take advantage of the opportunities to be challenged by the various options offered.

# ACADEMIC INFORMATION AND POLICIES

Official academic policies can be found in the Academic Policy Manual on the ENC website.

#### PRIVACY OF STUDENT RECORDS – FERPA

The Family Educational Rights and Privacy Act of 1974 (FERPA) requires that students and their guardians, when applicable, receive written notification of their rights under the act. These rights include the right to 1) inspect and review the student's educational records, 2) request an amendment to the student's records to ensure they are correct and otherwise not in violation of the student's right to privacy, 3) consent to the disclosure of information to other individuals or entities, 4) file a complaint with the Office for Civil Rights to seek redress if the college fails to comply with the requirements of the Act, and 5) obtain a copy of the college's policy.

#### SEMESTER SYSTEM

Eastern Nazarene College operates on the semester system. Fall semester runs from the end of August/early September to mid-December and Spring semester runs from January to May. Summer classes either meet in a traditional format in three hour blocks every day during the month of May or are offered online at various times in the summer. The majority of undergraduate classes in the fall and spring are scheduled during the day

with a few courses scheduled in the evening. Some are also offered online during the semester. A typical course load is 5 three credit courses during fall and spring semesters.

#### ACADEMIC CALENDAR

The academic calendar lists all the important deadlines and academic events each semester. Take special note of: Add Deadlines, Drop Deadlines; Withdrawal Deadlines; Grades Available. The Academic Calendar is published on the college website.

#### **ACADEMIC ADVISORS**

Students are assigned advisors who should be consulted each semester to assist with academic planning and course selection. Students must obtain the approval of their advisors to add courses to their class schedules.

While advisors are available for advice and course planning, it is the student's responsibility to know and adhere to college policies, follow published deadlines and stay on track to complete all degree requirements.

### ADVANCED PLACEMENT (AP)

Advanced placement may be achieved through participation in the College Entrance Examination Board's Advanced Placement Program (AP). Students must have OFFICIAL scores sent directly to the Registrar's Office for evaluation. A score of 3 will result in a waiver of the course in most cases. A score of 4 or 5 will result in a waiver with college credit granted for the equivalent course.

### CRITICAL WRITING ADVANCED PLACEMENT

A score of 4 or 5 in the Language and Composition Advanced Placement (AP) exam is required for waiver of the General Education course, CP100 Critical Writing. College credit will be granted.

### MATH ADVANCED PLACEMENT

The Math Program chair may, in special circumstances, grant students advanced placement in math who desire it but have not taken an Advanced Placement Exam. Any student wishing to pursue this route should contact the Chair of the Division of Science and Technology. Students who desire full sophomore standing (24–56.9 credits) in Mathematics must take MA211 Calculus III and MA171 Introduction to Discrete Math in the fall semester.

#### CLEP EXAMS

Students who take College-Level Examination Program (CLEP) exams and receive the minimum score listed will receive college credit and waiver of the equivalent requirement. Students must have OFFICIAL scores sent directly to the Registrar's Office for evaluation.

### INTERNATIONAL BACCALAUREATE (IB)

Eastern Nazarene College will grant credit for Higher Level (HL) International Baccalaureate Diploma exams with scores of 5 or above; a score of 4 will result in a course waiver. An official score report must be provided to the ENC Registrar before credit is awarded. Each Program will determine the number of credits to be granted in their discipline and the ENC course equivalent. Students may choose to forego credit should they prefer to enroll in the equivalent course at ENC.

#### DEVELOPMENTAL COURSES AND GRADUATION CREDIT

Developmental courses prepare a student for college level work. As such they are not counted in the total credits earned toward graduation. Courses that fall into this category are: MA098, MA099, EN098, and EN099. The minimum grade to successfully complete these courses is a "C". Any grade lower than this will result in the need for the student to retake the course.

#### THE CENTER FOR STUDENT ENRICHMENT

The Center for Student Enrichment (CSE) provides a variety of resources designed to support and enrich the lives of all students at ENC. The Center employs professionals and student staff to administer tutoring, academic coaching, supplemental instruction, developmental education, disability services, and career and professional development. For further information, contact CSE at cse@enc.edu.

#### TUTORING SERVICES

CSE is staffed with trained peer tutors who assist students with general academic skills, writing needs, general mathematics skills, test preparation, and study skills. Students can make one-on-one or group appointments with CSE tutors through our online scheduling system: www.enc.mywconline.com

CSE is also an excellent place to find quiet study space. Hours of operation are posted each semester on the CSE website.

#### STUDENTS WITH DISABILITIES

The Office of Accommodation and Access provides academic and personal support to undergraduate, graduate, and continuing education students with diagnosed learning disabilities; psychiatric disorders; hearing, visual, and physical impairments; or other medical conditions. This support is in the form of accommodations, modifications, and services for students with many types of disabilities including, but not limited to: learning disorders; attention deficit/hyperactivity disorder; psychiatric disorders; traumatic brain injury; deaf and hard-of-hearing; blindness and low vision; mobility impairments; medical conditions; autism spectrum disorders; and temporary disabilities in the form of accommodations, modifications, and auxiliary aids. Accommodation needs in residential settings are coordinated with the Office of Student Life. It is the policy of Eastern Nazarene College not to discriminate on the basis of disability. As part of that policy, the College is committed to (a) ensuring the provision of accommodations and services necessary to enable students with disabilities to achieve their maximum potential as members of the College community; and (b) facilitating the integration of students with disabilities within the College community. For details see the Policy on Accommodation and Access.

#### CAREER AND PROFESSIONAL DEVELOPMENT

The CSE is also home to the Office of Career and Professional Development, which assists college students and alumni/ae in evaluating, developing, and implementing their career goals (choice of major, work and ministry/service opportunities). The following services are available: career counseling, self/career exploration, job preparation assistance with resumes, cover letters, social media, and personal branding, job search help with part-time and full-time job posting, job fairs, internship listings, and alumni/ae

networking opportunities. Information on graduate schools and assistance with planning and the application process is available. Career development courses are also offered for credit.

### LIBRARY SERVICES

Nease Library provides information resources and services to support students and faculty in all programs of the college. In addition to traditional collections of books, non-print materials, and periodicals, the ENC community has access to a varied collection of electronic books and full-text article databases online. Library staff teaches library/Internet research skills and assists students in the research process. The library also supports instruction through the Donald E. Reed Instructional Resources Center.

# Registration

### **REGISTRATION FOR NEW STUDENTS – FIRST-YEAR STUDENTS**

The Registrar's Office assists in preparing a schedule for all new first-year students based on their area of interest (major) identified during the admission process. This major can be changed at any time by students prior to Move-In Day by contacting the Registrar's Office at registrar@enc.edu or at 617-745-3877.

Prior to creating the final schedule, students have the opportunity to review their schedules and meet with their advisors during the New Student Orientation process. NSO is an important opportunity to meet with one's advisor, the registrar's staff, and admissions counselors to get acquainted with the college and fine-tune one's class schedule. First-year students, along with returning students, also have an opportunity to make last minute changes during registration day, the day before the first day of classes. Students cannot register for classes or add a course after the Registration and Add deadline, one week after classes have begun. Students may drop a course up to two weeks into the semester. See the academic calendar at the front of the catalog for exact dates and become familiar with these significant deadlines.

### REGISTRATION FOR RETURNING STUDENTS

**Early registration (pre-registration)** of returning students takes place during late October for the following Spring and in late March for the following Fall. Registration takes place according to student classification, with seniors and juniors registering first, followed by sophomores and freshmen.

**Regular registration** for both new and continuing students is on the day before classes start each semester. Information on registration procedures will be furnished for each student at the time of registration. No student will be permitted to register for any course, if in the judgment of the instructor in charge, the student lacks sufficient preparation to undertake the work. No student may take an overload (more than 17 credit hours in any semester) except upon approval of the Academic Standing Committee. Students who have earned at least 57 credits and have a cumulative GPA of at least 3.0 may register for a one course overload without academic petition.

#### REGISTRATION FOR TRANSFER STUDENTS

The Registrar's Office provides each transfer student with a transfer evaluation report to show how transferred classes have been evaluated. Transfer students need to review

this report carefully prior to meeting with their advisors to create their course schedules on registration day. In some cases, advisors are available to communicate with transfer students via email or by special appointment prior to Registration Day.

#### LATE REGISTRATION

All students are expected to be present and to complete registration on Registration Day, if not before. A late fee of \$100 is charged to any student who registers for classes the first time after Registration Day. No student will be allowed to register more than a week late, except upon petition to the Academic Standing Committee and after satisfactory arrangement with the Academic Dean.

### CREDIT LOAD

Credit or course load refers to the number of credits a student is enrolled in during a given semester. Course load affects a student's eligibility for financial aid, housing, participation in collegiate sports, and repayment of student loans. A typical course load is 15 credits in the fall (5 classes) and 15 credits in the spring, with students taking at least 16 credits in three semesters during their four years at ENC. Students may register for up to 17 credit hours without paying additional tuition.

### **ENROLLMENT STATUS**

Students have an enrollment status of full-time if they are enrolled in 12 or more credits per semester. Students are considered part-time if they are taking 11 or fewer credits per semester. A student's enrollment status is active when enrolled for a semester, inactive when not enrolled. A student's status does not change during summer due to non-enrollment if enrolled for the subsequent fall semester. Enrollment status is reported to the National Student Clearinghouse for determining the repayment of student loans.

Note: Students must be enrolled for 12 credits per semester to be billed at the block tuition rates shown in Tuition and Fees for 2023–2024. See Financial Aid for eligibility requirements for credit load.

#### CLASS ATTENDANCE POLICY AND ABSENCES

Students are expected to attend ALL class sessions. Students are reminded of the importance of regular attendance at class.

Unexcused absences are not tolerated and must be reported. Faculty are encouraged to be attentive to students with excessive absences. Students remain responsible for all missed class responsibilities while absent from class due to certain life events that prevent a student from being in a class or laboratory session. Faculty must include an attendance policy in the course syllabus, which includes a reference to this all-college policy.

The course syllabus must clearly state the policy and procedure that the faculty will use for handling any unexcused absences. Faculty must provide a mechanism to allow the student to cover the class content missed and make-up assignments for excused absences. The mechanism must be clearly documented in the syllabus.

The limit for the number of excused absences should not be less than one week's worth of class meetings, or 7.5% of the total class time.

All absences beyond the limit are treated as unexcused. Extensive absences for whatever reason may lead to the advisability of withdrawal from courses or academic suspension

for the remainder of the semester by the Dean's Office. Students are advised to consult the section of the catalog on withdrawal when they contemplate dropping out of courses or withdrawing from college.

Note: Policies stated in the class syllabus must be followed and students are strongly advised to carefully review the attendance policies in each of their classes.

#### ADDING/DROPPING COURSES

Courses may be officially added or dropped by submitting forms through the Registrar's Office and obtaining the advisor's signature, and if the class has already begun, obtaining the instructor's signature or through action via the student portal. Notifying an instructor or verbal communication with the Registrar's Office or the student's advisor is not sufficient. All changes may be submitted in writing or electronically. Changes to the student's course schedule will be processed without academic record or fee during the first two weeks of the semester (the class drop period). After that period, a \$25 fee will be charged for each withdrawal from a course.

#### WITHDRAWING FROM A COURSE

Students may withdraw from a course through the eighth week of a full-semester course. A "W" will be recorded on the student's transcript. Unofficial withdrawal (student does not attend and does not submit withdrawal form) will result in a grade of "F". Academic standing is based on total credits attempted during the semester, including withdrawn credits. A \$25 fee will be charged for each withdrawal from a course. See the academic calendar for last date to withdraw from a course.

### **PREREQUISITES**

Prerequisites are listed under the program course descriptions. A student is responsible for ensuring that all prerequisites are satisfied before registering for a course.

#### COURSE OVERLOADS

Each credit hour over 17 credits will be charged per credit. This is considered a course overload. Students must submit an Academic Petition to the Registrar's Office to obtain permission for a course overload. Students who are not in good academic standing are not allowed to register for a course overload. Students who have earned at least 57 credits and have a cumulative GPA of at least 3.0 may register for a one course overload without academic petition.

#### WAITLISTS

The Registrar's Office moves students off waitlists into courses as slots open up due either to students dropping the course or by increasing the enrollment limit for a course. The Registrar's Office communicates to students upon enrollment that they have been moved off the waitlist and enrolled in the course. Students who receive electronic notification of enrollment in the course are on the official class roster and will be billed accordingly. Students MUST drop this course if they have decided to take another course.

#### STUDENT SCHEDULES

Students may view their course schedule through the student portal as well as in Watermark. Students are expected to check their email regularly throughout the year, but in particular during the registration period as well as during the add and drop

period if they have been put on a waitlist or have submitted a course change. Students are responsible for reviewing their student schedule and communicating changes to the Registrar's Office.

### **COURSE INCOMPLETES AND EXTENSIONS**

All written work for a given semester is due no later than the last day of the semester. A request for an incomplete must be submitted if a student wishes to complete work after this time. The student does so by submitting an Academic Petition to the Registrar's Office for review by the Academic Standing Committee. Students must complete all coursework no later than the eighth week of the subsequent semester or earn a grade of "F" for the course.

### **AUDITING A COURSE**

An audit is the privilege to attend a course for personal enrichment without receiving academic credit. Students who achieve Dean's List standing are allowed to audit one course during the following semester free of charge. People over 65 and pastors may audit courses for \$110. Otherwise, a student must pay one-half of the regular course charge for an audit. Students who desire to audit a course will be accepted as space permits with preference being given to students enrolled in the course for credit. A student auditing will be exempt from regular course requirements and should not expect individual attention or personal evaluation from the instructor. An audited course will appear on a student's transcript only if the instructor confirms that a student has attended at least fifty percent of the class sessions. Special admission is required and students must register for an audited course by the add deadline.

### REPEATING COURSES

Students may repeat courses previously passed or failed to improve grades. Only the highest grade earned is used to calculate the grade point average and credit is only awarded once. Substitutes will not be made for courses no longer offered. All grades remain on the transcript. Courses taken as transfer courses may be taken as repeated courses with the higher grade used to calculate the overall cumulative GPA. A student may not re-take a final exam for a class to improve a grade without retaking the course.

### **DIRECTED STUDY**

A directed study consists of course work done outside the classroom under faculty supervision. Weekly conferences will be held with the instructor. Consequently, a fee for private instruction will be charged in addition to tuition for the course. Generally, directed studies will only be approved if there are irreconcilable class schedule conflicts. The student must submit a petition to the Academic Standing Committee and obtain the permission of the instructor.

#### INDEPENDENT STUDY

An independent study consists of investigation of a problem or topic done largely by the student with initial guidance, occasional consultation, and final evaluation by the faculty member who sponsors the project. Petitions will be considered in cases where a student wishes to pursue a subject of particular interest not already treated extensively in a regular course. The student must submit a petition to the Academic Standing Committee

with a syllabus and obtain the permission of the instructor. Generally, students must have a 3.0 cumulative GPA and have a classification of at least a sophomore to be considered.

#### **GRADING SYSTEM**

Standing in courses is indicated by letter grades as follows: "A" indicates distinctly superior work; "B" indicates meritorious work; "C" indicates average work; "D" indicates unsatisfactory work, but passing; "F" indicates failure. In order to receive credit for a course in which an "F' has been received at the end of a term, a student must repeat the course. Students cannot enroll in courses for which a failed course is a prerequisite except by approval of the Academic Standing Committee. Numerical values, or quality points, are assigned to the letter grades according to the following scale for each semester hour for each course involved:

A = 4.0	B+ = 3.3	C + = 2.3	D = 1.0
A - = 3.7	B = 3.0	C = 2.0	F = 0
	B - = 2.7	$C_{-} = 1.7$	

- W Withdrawal provided the student withdraws in accordance with the published withdrawal deadline. See the Academic Calendar for dates. No quality points are involved.
- NC A first-year freshman student may petition the Academic Standing Committee to replace an F grade with an NC (no credit). In general, such petitions will only be granted for elective courses. Although an NC indicates non-passing work, it carries no quality point value and thus has no effect on quality point average.

#### PASS/FAIL GRADES

Students may elect to take elective courses (courses outside of the required core or their major field) on pass-fail grading. Arrangements for exercising the pass-fail option require notifying the Registrar's Office in writing. Changes from regular grading to pass-fail grading may not be made beyond the deadline set forth by the Academic Calendar.

- S Satisfactory shall be recorded if the instructor turns in a grade ranging from A to C-.
- U Unsatisfactory shall be recorded for a D or F. Quality point averages shall not be affected under the pass-fail option.

### **GRADE REPORTS**

Final grades are posted to the student's personal student portal page at the conclusion of each semester. At the end of the academic year, a printed copy of all grades earned during the year can be mailed to the student's home address, if requested by the student.

### **GRADE GRIEVANCE PROCEDURE**

The grade grievance procedure provides each student with the opportunity to formally appeal the final grade in a course based on a belief that the grade has been awarded arbitrarily or capriciously. This procedure is not intended to handle disputes which may arise about the grading of individual exams or assignments during the semester. When such disputes arise, the student should contact the instructor immediately, rather than wait until the end of the semester. Each Grade Grievance submitted according to this procedure must be an individual action by an individual student. Class action grievances by one student on behalf of several students or an entire class are not permitted. The basic steps are:

Step I – Instructor and Student (Informal)

Step II – Division Grade Grievance Committee (Formal)

Step III – College Grade Grievance Committee (Appeal)

Please review the Academic Policy Manual on the college website for a detailed description of each step in the process.

#### STUDENT CLASSIFICATION

Classification is based upon the total credit hours earned:

Freshman 0-23.9Sophomore 24-56.9Junior 57-93.9Senior 94-graduation

Fifth Year Senior This classification is for students who have enough credits to

be classified as a Senior, but will graduate the following year.

### SPECIAL STUDENT STATUS (NON-MATRICULATING)

Students who enroll in one or more credit courses at ENC but have not matriculated into a degree program may apply for Special Student Status. All the following apply to students who have Special Student Status:

- Students taking courses under Special Student Status are expected to satisfy applicable course prerequisites before enrolling in a course.
- Students taking courses under Special Student Status are not eligible for financial aid.
- Special Student Status does not guarantee acceptance.
- For courses that have reached their maximum enrollment, preference is given to students in degree programs.
- The maximum number of credits that students may take under Special Student Status is the minimum for a full load unless they are enrolled in a specialized set of courses like the Boston Semester.
- International students seeking an F-1 visa must be enrolled in a full-time course of study to register for courses as a student with Special Student Status.

#### ACADEMIC STANDING – SATISFACTORY ACADEMIC PROGRESS

In order to remain a student at Eastern Nazarene College, a student must 1) make steady progress in earning credits towards a degree and 2) make satisfactory academic progress, determined by maintaining a satisfactory cumulative GPA (good academic standing). Students are evaluated at the end of the fall and spring semesters for the purpose of determining satisfactory academic progress. A student who fails to meet either one of the criteria outlined below for satisfactory academic progress at the end of each semester faces academic discipline. See the section following the criteria below for an explanation of each type of academic discipline. For complete details regarding Financial Aid Satisfactory Academic Progress, see Maintaining Your Financial Aid Eligibility — Satisfactory Academic Progress in the Financial Aid section.

There are four categories in academic standing: Good Academic Standing, Academic Warning, Academic Probation, and Academic Suspension.

### 1. Steady Progress in Earning Credits Toward a Degree

A student must earn enough cumulative credit hours after each academic year to maintain incremental progress toward completing a degree within the allowable time frame for full-time students.

Degree	Time Frame to Complete
Associate Degree (AA/AS)	3 Years
Bachelor's Degree (BA/BS)	6 Years

This time frame requires a student to complete a minimum of 67% of the cumulative credit hours attempted each year. Credit hours attempted include:

- credit hours for all courses appearing on the student's transcript,
- course withdrawals made after the initial add/drop period,
- incomplete courses, repeated courses, pass-fail courses,
- courses with an NC (no credit) grade and remedial course work.

### 2. Satisfactory Cumulative GPA - Good Academic Standing

Students who maintain a minimum grade point average according to the following table are considered to be in good academic standing. Academic records are reviewed after the fall and spring semesters.

Cumulative Credit Hours Attempted	Minimum Cumulative GPA
0-32.9	1.7
33–48.9	1.8
49-63.9	1.9
64 or more	2.0

Students who fall below the above minimum standards are not in good academic standing and will be placed on academic probation or academic suspension. New students must meet the criteria for satisfactory progress and good standing or will receive an academic warning. Only students in good academic standing may officially represent the college (athletics, music, plays, and summer ministry teams).

### ACADEMIC DISCIPLINE

Only students in Good Academic Standing may represent the college. Students on Academic Warning, Academic Probation, or under Academic Suspension may not represent the college and are precluded from participating in the following activities:

- Student government (including class councils), intercollegiate athletics, college
  music ensembles, or ENC summer ministry teams. This restriction does not apply to
  intramural activities.
- b. Students enrolled in a course that requires participation in any of the activities mentioned above will be allowed to participate only
  - i. if the course is required for their major and
  - ii. the course related activities are listed in the course syllabus and are required components of the course
  - iii. the course must be within the 13 credit limit for the semester as outlined below

#### ACADEMIC WARNING

Students who earn a **cumulative GPA of less than 1.7 at ENC**, and have **fewer than 19 attempted credits** will be placed on academic warning. The student is put on academic warning for the first semester following the unsatisfactory academic performance.

#### ACADEMIC PROBATION

Students who do not maintain the minimum cumulative GPA required for good academic standing (as defined above) are placed on academic probation.

Students with fewer than 64 attempted credit hours and a cumulative grade point average above 0.7 may be granted a financial aid probationary period of one semester after failing to meet one of the established criteria for the first time only at the time of evaluation. The student may continue to receive financial aid during the probationary period, but must meet both criteria by the end of that semester.

### Students on academic warning or academic probation are:

- a. limited to 13 credits and must earn a minimum GPA of 2.0 for the warning or probationary period.
- b. required to meet with a representative from the Center for Student Enrichment to determine an appropriate plan for academic success. This plan is articulated in a contract that must be signed by the student, a representative from the CSE, and the student's academic advisor before being filed with the Registrar's Office.
- c. Failure to submit the signed contract to the Registrar's Office by the official drop-date for the semester may result in withdrawal for the semester.
- d. Students on academic warning or academic probation are required to complete an Academic Progress Report twice during the semester and submit a copy to both their academic advisor and to the specified representative from the Center for Student Enrichment.
- e. Students on academic warning or academic probation are required to meet with their academic advisor a minimum of 3 times a semester (suggested monthly) to review their academic progress.
- f. Students on academic warning or academic probation are required to meet with a representative from the Center for Student Enrichment a minimum of 5 times during the semester to review the items stipulated in the agreed on contract. Bi-weekly meetings are strongly suggested.
- g. Students failing to meet the requirements outlined above will be reviewed by the Academic Standing Committee at the end of the semester and may be subject to academic suspension.

#### ACADEMIC PROBATION WITH FINANCIAL AID

Students on Academic Probation as defined above will continue to receive financial aid during the first probationary period only.

### ACADEMIC PROBATION WITHOUT FINANCIAL AID

Students who have earned academic probation without financial aid lose all federal and state financial aid awarded during the probationary period. This means a student loses their eligibility to receive federal aid because the student is not making satisfactory

academic progress to warrant the federal financial aid as required by Title IV funding rules. Institutional aid that the student still qualifies for based on GPA requirements will still be extended during this probationary period. Institutional aid, non-federal private loans, cash/credit payments including payment plans, and outside scholarships will need to be used to pay the student bill. Academic Probation without Financial Aid is based on the following criteria:

Criteria 1 – Students who have been on academic probation for one semester and have not improved their academic performance to meet minimum GPA requirements based on good academic standing.

Criteria 2 – Students who have attempted 64 or more credit hours and are not meeting the criteria for satisfactory academic progress. This includes students who previously have never been on academic probation.

#### ACADEMIC SUSPENSION

A student may be academically suspended if any one of the following criteria is met:

- Students who fail to meet the minimum GPA requirements based on the number of credit hours attempted and have been on academic probation for two successive semesters will be placed on academic suspension.
- Students may be suspended if, after one semester on academic warning or academic probation, the cumulative grade point average is not improved as determined by the Academic Standing Committee, OR
- 3. Students may be suspended if at any time after two semesters at ENC, the grade point average falls below a 1.0 average, OR
- 4. The student exhibits excessive absences during a semester.

#### ACADEMIC SUSPENSION DUE TO EXCESSIVE ABSENCES

At any time during the semester, the Academic Dean may suspend a student for excessive absences from all of their classes as defined by the course syllabus.

# REMOVAL FROM ACADEMIC PROBATION OR PROBATION WITHOUT FINANCIAL AID

A student will be taken off academic probation if the student meets the two criteria for satisfactory academic progress and academic standing outlined in the Academic Standing and Discipline sections.

#### APPEALING SUSPENSION

A suspension may be appealed within 14 days from the date on the dismissal notification. Appeals must be submitted in the form of a professional, typed letter to the Academic Standing Committee. The appeal must be submitted to the Registrar's Office, and must include the reasons for the appeal and assessment of academic difficulties. If the suspension appeal is granted, the student will be on academic probation for the following semester.

#### READMISSION AFTER SUSPENSION

Suspended students may apply for readmission after one semester has lapsed by presenting evidence of a commitment to improving academic performance and success. Students need to present an official transcript of courses taken during the suspended

semester as evidence of this commitment. Readmission is not automatic and is contingent upon evidence that the student has gained the ability and motivation to succeed in college. Applications for readmission must be signed by the Registrar's Office, Student Development, Student Accounts and Financial Aid. The readmission form is available in the Admissions Office.

### **READMISSION AFTER 5 YEARS**

Students who are readmitted to ENC after five years will have their credits evaluated by the registrar. Students will be held to the degree requirements of the current catalog year.

## Leaving the College

#### WITHDRAWAL FROM COLLEGE

A student must file a withdrawal form when withdrawing from the college, which may be obtained in the Registrar's Office. The student must obtain the signatures of the Registrar, Student Accounts, Student Life and Financial Aid. When a student withdraws (or is withdrawn) from school prior to the end of a semester, a prorated amount of the student's institutional scholarships and grants will be withdrawn from the student's account, based upon the refund guidelines. Additionally, Title IV federal and state financial aid will be repaid to the appropriate program(s) as mandated by regulations published by the U.S. Department of Education. Please see the Student Accounts section for additional information.

#### LEAVE OF ABSENCE

A student must file a leave of absence form when taking a leave of absence from the college. Students granted a leave of absence are NOT considered to be withdrawn from college. This is a very important distinction since the grace period associated with the repayment of federal loans (i.e., Stafford Loans) will begin to expire from the date of withdrawal. However, students granted a leave of absence must return on the scheduled date or a withdrawal date will be pre-dated with the last recorded date of class attendance. This will be the recorded date reported to lenders regardless of whether the student subsequently withdraws officially by notifying the school. Room and board refunds will be made on the basis of the number of weeks the student attended. No refunds will be made for a portion of a week.

#### TRANSFER POLICY

### From Other Colleges and Universities:

- 1. Credits from colleges and universities that are accredited by any of the six regional accrediting associations in the United States may be accepted for transfer.
- 2. Courses submitted for transfer credit shall receive ENC credit if the course was completed with a grade of C- or better at an accredited degree granting institution and the course is accepted towards graduation at Eastern Nazarene College. Transfer credit hours from non-accredited institutions will be tentative, pending achievement at ENC. Transfer credit hours from colleges and universities outside the United States require evaluation by an independent agency and may be tentative, pending achievement at ENC. Pass/Fail courses will not transfer. The exception is PE Activity courses.

- 3. There shall be no delineation between traditional courses and distance-learning/online courses as long as the course meets the criteria stated in items 1 and 2.
- 4. Up to 93 credits may be accepted in transfer, inclusive of previously stated exceptions.
- 5. Prior permission must be granted to use a transfer course as a grade replacement.
- 6. No more than 4 transfer credits shall be accepted during a semester while the student is simultaneously enrolled at ENC as a full-time student. Credits taken at another college are NOT counted toward determining enrollment status (FT or PT) at ENC.
- For courses counting toward a major program, a minimum of one-half of the required graduation credits for the degree must be satisfied at Eastern Nazarene College.
- 8. For courses counting toward a minor, a minimum of one-half of the coursework must be completed at Eastern Nazarene College.
- When coursework is determined to be substantially equivalent to a specific course at
  Eastern Nazarene College, credit is granted in the ENC course and that requirement
  is met. The division overseeing that program of study shall review and approve all
  equivalencies.

### **Pre-Approval of Transfer Courses**

Current students wishing to take courses at other accredited colleges or universities for the purpose of receiving transfer credit (as outlined above) toward their degree requirements at Eastern Nazarene College must complete and submit a Pre-Approval to Transfer Form. Students who fail to follow the process cannot be guaranteed courses will transfer as expected.

To ensure a smooth evaluation process, the student must provide: the name of the school where the course will be taken, when the course will be taken, the course number, and a description of the course as part of the permission to transfer form, as well as specify the course requirement the student hopes to fulfill through the requested transfer course. Students should consult with their academic advisor and obtain the signature of the appropriate Program Chair.

Courses are evaluated by the major program for courses in the student's major, by the chair of General Education if part of the core curriculum, or by the Registrar's Office for all electives. The Registrar's Office sends the student a transfer evaluation report once the evaluation is complete.

If the transfer course is approved, a student must request an official transcript be sent from the host college to Eastern Nazarene College in order for the course to be credited toward their degree. Students must earn a C- or higher in order to gain credit.

### Transfer Credit and GPA

Courses taken at other accredited colleges and universities that are evaluated for transfer credit prior to the student's first course at Eastern Nazarene College are not calculated toward the student's GPA. The student receives credit only. Courses taken at other accredited colleges and universities after a student has completed at least one course at ENC are included in the calculation of the student's overall cumulative GPA, but do not count toward the ENC cumulative GPA used to determine graduation honors, class rank, or honor society membership, which are based only on grades earned at ENC (i.e., ENC GPA).

#### FINAL EXAMS AT ENC

ENC does not have a separate Final Exam period, but the semester concludes with a period of modified course meetings in which the majority of courses will meet twice in expanded periods to conduct a last exam, hold student presentations, or otherwise conduct a concluding assessment of student learning in the course.

These sessions are mandatory, and students are advised to study the academic calendar at the front of this catalog, before making travel arrangements or committing to events or activities that fall within the semester.

#### ACADEMIC PETITIONS

Academic petitions may be filed by students who wish to be granted special permission or exception to a current academic policy or requirement, including requests to:

- Take Adult Studies courses
- Allow a course substitution for degree requirements
- Receive an incomplete or extension to a course incomplete
- Change a final exam schedule
- Make up a missed final exam
- · Take a directed study class
- Take an independent study class
- Take a course overload.

The student must submit a completed academic petition form, a letter of request, and any additional required documentation, to the Academic Standing Committee. The committee meets on an as needed basis, generally every 2–3 weeks. Results of petitions are communicated to the student, advisor, and any other pertinent parties by the Registrar's Office.

#### ACADEMIC INTEGRITY POLICY

A cornerstone of academia is a commitment to academic integrity. In a scholarly community, the importance of having respect for one's own work and the work of others is essential; building a sense of trust among members of such a community is crucial as individuals create, share, and apply scholarly work. The importance of academic integrity is heightened within a Christian community of scholars in that we are also accountable to God for any behavior of a dishonest nature. In consultation with administrators, faculty and students, Eastern Nazarene College has set forth basic standards of academic integrity.

#### BASIC STANDARDS OF ACADEMIC INTEGRITY

At Eastern Nazarene College, integrity and honesty are expected and required in all activities associated in any way with academic course work. While it is not prudent or practical to attempt to specify an exhaustive list of unacceptable behavior related to academic integrity, examples of unacceptable behavior include, but are not limited to, the following:

 Cheating (e.g., using any unauthorized materials or devices during an examination, allowing other students to submit your work under their name, changing responses on an exam after it has been graded, etc.).

63

- Plagiarism, which is presenting the work of others as your own, either directly or by implication (e.g., not giving credit to the original source for any thoughts, ideas, quotations, charts, etc. included in one's own work, etc.).
- Falsifying information (e.g., reporting of undocumented data, fabricating a set of data, fabricating volunteer hours required for a course, etc.).
- Stealing and/or distributing exams which have not been authorized for release or included in syllabi, and discussed in individual classes at the beginning of each semester.

Students and faculty should consult the Registrar's Office for the procedures for appealing and reporting academic dishonesty. It can also be found on the college website.

### **CUMULATIVE GPA**

Cumulative GPA is calculated based on all courses taken at ENC and all courses taken at accredited colleges after the student has completed at least one course at ENC. The cumulative GPA is used to determine academic standing, degree requirements and scholarship standing.

### **ENC CUMULATIVE GPA**

An ENC cumulative GPA will be calculated for all students based only on courses taken at ENC, and will be used to determine semester honors, graduation honors and class rank.

#### ACADEMIC HONORS - DEAN'S LIST AND HONOR ROLL

Honors are based on all grades earned at Eastern Nazarene College. To qualify for the honor roll or dean's list for a given semester, students must be enrolled in at least 12 credits (not counting satisfactory/unsatisfactory courses and developmental courses) and earn a GPA of at least 3.7 for the dean's list and 3.2 to be named to the honor roll. Transfer credit is not used to calculate GPA for the honor roll or dean's list.

#### PHI DELTA

Students are eligible if they obtain two consecutive semesters on the dean's list and maintain a cumulative GPA of 3.7.

#### GRADUATION HONORS

Graduation honors are awarded to students who have the following final cumulative grade point averages based on grades earned at ENC:

Honor	Minimum Grade Point Average
Summa Cum Laude	3.9
Magna Cum Laude	3.7
Cum Laude	3.5

Does not include transfer credit.

### PHI DELTA LAMBDA NATIONAL NAZARENE HONOR SOCIETY

Students who are in the top 15% of their graduating class and have completed a minimum of 42 credits at ENC are eligible for nomination to this academic honor society. Class rank is based on a student's ENC GPA. Transfer credit is not used to calculate one's ENC GPA.

### Graduation

#### DEGREE CANDIDACY

To be considered a candidate for a baccalaureate degree in any specific year, the student must have filed an application for degree candidacy signed by the student and the student's advisor. The application is due no later than November 1 of the junior year, or three semesters prior to the anticipated graduation date, or fines will be imposed. The signed degree candidacy form implies that the student and advisor have reviewed the plan for completion of all requirements by the anticipated graduation date. Any change in the student's approved program may delay their graduation. Only candidates for a degree will participate in the formal activities of the senior year. A late fee of \$25 is charged for late submissions during the junior year. Students who submit a degree candidacy form the same academic year as their graduation are charged a \$50 late fee. No student will participate in commencement unless all scholastic and financial requirements have been met. Faculty advisors and the registrar are freely available to assist students in planning their programs, but the ultimate responsibility of meeting all requirements for the degree rests entirely with the individual student.

#### STAYING ON TRACK TO GRADUATE – DEGREE AUDIT REPORTS

Students are responsible for reviewing the catalog and knowing their degree requirements. It is up to students to review their progress after each semester to ensure they are staying on track to graduate. Degree audit reports are available for students to help track their progress and to register for classes. The reports show which courses are needed to complete a specific major and what courses have been taken. Audit reports are available to students and their advisors through the student portal. Students may also request a copy from the Registrar's Office by emailing a request to registrar@enc.edu.

#### **GRADUATION REQUIREMENTS – PARTICIPATION IN GRADUATION**

Students who have satisfied all degree requirements are cleared academically to march in graduation. However, students must also be cleared financially and by the Student Life Office in order to participate. *Financially Cleared:* The Student Financial Services Office has the authority to bar a student who is on financial hold from participation in graduation if the student owes money to the college. *Student Life Office:* The office can impose disciplinary action that includes forfeiture of participation in graduation ceremonies.

#### PETITION TO PARTICIPATE IN GRADUATION

Students who are no more than 3 courses (9.0 credits) short of meeting graduation requirements may participate in the May graduation ceremony, if they provide a plan to complete degree requirements prior to the June or August graduation date. The student must specify exactly when and where the student will take the remaining courses. If the student is taking courses somewhere other than ENC, the student must provide course descriptions and a Pre-Approval to Transfer form for evaluation of the course by the Registrar's Office and/or program major.

#### TRANSCRIPTS

The Registrar's Office maintains academic records for any student who has completed

coursework at Eastern Nazarene College. Active or inactive students or alumni may submit a written request to release an official copy of a transcript of their academic record. Upon receipt of a written, signed request, the Registrar's Office will release transcripts to identified parties. All financial obligations to the college must be met before transcripts will be released. There is a fee for processing transcripts. Payment by credit card will only be accepted for requests submitted through a secure, online ordering system. In order to protect the integrity of the document and students' privacy, the Registrar's Office does not release unofficial transcripts and does not fax transcripts. A legal name change on a student transcript will require submission of legal documentation. For complete instructions and modes of delivery, refer to the college website.

### **OFF-CAMPUS STUDY OPPORTUNITIES**

All off-campus study opportunities have financial aid implications. Most programs do not qualify for ENC institutional aid. See Financial Aid for details about your program.

### CROSS REGISTRATION AT OTHER NAZARENE INSTITUTIONS

- 1. Students may cross register at any one of the other Nazarene colleges or universities in the United States and Canada.
- 2. Students must apply to the host college cross registration is not automatic.
- 3. Cross registration allows students to take courses without transferring to the other school.
- 4. Students may cross register for a maximum of 18 credit hours.
- 5. In cross registration, students register and take care of financial matters on their own campus, even though courses are taken at another campus.
- 6. In cross registration, the student will pay the tuition of the home institution and the fees, room and board charges of the host institution.

### RETURNING TO ENC AFTER OFF-CAMPUS STUDY

Prior to a student's departure from ENC for off-campus study, the student must have the off-campus study checklist signed. This will facilitate a smooth return to campus.

### COUNCIL FOR CHRISTIAN COLLEGES & UNIVERSITIES (CCCU) PROGRAMS

Eastern Nazarene College is a member of the Council for Christian Colleges & Universities, an international higher education association of over 100 intentionally Christian colleges and universities that was founded in 1976. The CCCU sponsors off-campus study opportunities available to ENC students. The programs include culture-shaping experiences in the U.S. and culture-crossing programs overseas. Further information can be found on the CCCU website at cccuglobaled.org.

### ADMINISTRATIVE CLEARANCE

All students are required to obtain administrative clearance from every department before their class registration and housing for the upcoming semester will be guaranteed. In order to receive administrative clearance, all steps of the clearance checklist must be completed. A student will be issued a Clearance Certificate each semester after completing every step on the clearance checklist. New and returning students must complete the clearance process by the due dates designated by the departments. Only students who have received a semester Clearance Certificate are

eligible to participate in student positions or co-curricular activities for that semester. If students do not complete the clearance process for both the fall and the spring semester, they will be assessed a clearance late fee. Returning students will not be allowed to move into housing until the clearance process is completed.

# ACADEMIC PROGRAMS

# **Biology**

Division of Science & Technology

Sheryl Burt, Instructor

Dr. Robert Logan, Assistant Professor

Dr. Sherryllene Pinnock-Kariuki, Assistant Professor

Dr. Matthew Waterman, Professor

#### MISSION:

The mission of the Life Science Program of Eastern Nazarene College is to prepare students for lifelong learning and scientific service in the fields of biology, biochemistry, environmental science, and pre-professional training for dentistry, medicine, nursing, pharmacy, physical therapy, teaching and veterinary medicine. The department also guides students in the scientific endeavor of seeking truth, which is fundamental for all successful scientific inquiry.

#### **GOALS:**

- To provide broad based instruction and experience in the foundational knowledge, experimental techniques, primary literature, theoretical and ethical outlooks in Life Science fields including: biochemistry, molecular, cellular, organismal, ecological and environmental biology.
- To encourage an understanding and appreciation of the scientific method as a mode of inquiry including its practice as the "process" underlying the foundational knowledge of the Life Sciences.
- To prepare students for graduate study in science, the health professions, and/or professional employment related to Life Science, such as teaching, technology, public service, and research.

### DEGREES, MAJORS AND TRACKS OFFERED

Bachelor of Science: Biology; Bioinformatics Bachelor of Arts: Biology; Bioinformatics

Minor: Biology; Bioinformatics

Preparatory/Pre-Graduate Studies: Students may also major in Biology and choose elective courses that will prepare them for future study. The recommended sequences of courses include Pre-Medicine, Pre-Nursing, Pre-Physical Therapy, and Pre-Occupational Therapy. Each of these programs may be pursued in combination with a variety of majors – typically as part of a Biology, Biochemistry, Chemistry, or Environmental Science degree. The requirements for these areas of preparation are listed under Preparatory Courses of Study.

### **GENERAL DEGREE REQUIREMENTS**

- Fulfill all General Education Requirements see below
- Earn minimum of 123 Graduation Credits
- Pass Program Portfolio Assessment
- Meet minimum Cumulative GPA of 2.0

### GENERAL EDUCATION REQUIREMENTS – 37 credits required

See page 11 for course options.

Cultural Perspectives Requirements, 32 credits

Physical Education Skills, 2 credits

Social Science, 3 credits

### **Biology Focus Area Requirements and Options**

Each degree requires a varying number of credits for each area. Students choose courses from the lists below to fulfill the credit requirements.

### Focus Area I: Cell and Molecular

(choose 1 course with lab), minimum grade C-	
BI212 Genetics	3
BI213 Genetics Lab	3
BI220 Forensic Science	3
BI220L Forensic Science Lab	2
BI231 Analytical Methods	3
BI231L Analytical Methods Lab	2
BI310 Bioinformatics	3
BI310L Bioinformatics Lab	2
BI393 Cell Biology	3
BI394 Cell Biology and Immunology Lab	2
BI395 Immunology	2
BI431 Current Topics in Biology	2
BI491 Biochemistry Lab	2
BI492 Biochemistry I	2
BI493 Biochemistry II	3
Focus Area II: Field and Ecology	
(choose 1 course with lab), minimum grade C-	
BI221 Invertebrate Zoology	3
BI221L Invertebrate Zoology Lab	2
BI275 Freshwater Biology	3
BI280 Marine Biology	2
BI285L Aquatic Biology Lab	2
BI343 Field Problems In Ecology and Anthropology	3
BI343L Field Problems Ecology and Anthropology Lab	2
BI431 Current Topics in Biology	3
BI431L Current Topics in Biology Lab	3

3

BI480 Conservation Biology

BI480L Conservation Biology Lab	3
EV201 Environmental Science	3
EV201L Environmental Science Lab	1
EV331 Topics in Environmental Science	3
EV331L Topics in Environmental Science Lab	3
Focus Area III: Organismal	
(choose 1 course with lab), minimum grade C-	
BI203 Musculoskeletal Anatomy and Physiology	3
BI203L Musculoskeletal Anatomy and Physiology Lab	2
BI204 Systemic Anatomy and Physiology	3
BI204L Systemic Anatomy and Physiology Lab	2
BI260 General Botany	3
BI260L General Botany Lab	2
BI352 Microbiology	3
BI352L Microbiology Lab	2
BI370 Comparative Anatomy and Embryology	3
BI370L Comparative Anatomy and Embryology Lab	2
BI431 Current Topics in Biology	3
BI431L Current Topics in Biology Lab	3
BI451 Physiology	3
BI451L Physiology Lab	2

### **BIOLOGY (BS) REQUIREMENTS**

The Bachelor of Science is the appropriate degree for those students desiring to pursue graduate study in Biology or preparation in the health professions.

Students are required to:

- Fulfill all General Degree requirements see above
- Fulfill all General Education requirements see page 11, 37 credits
- Fulfill all Biology (BS) Major requirements see below
- Biology or Environmental Science, additional electives 200 Above at least one course 400 level with lab, 6 credits

### Biology (BS) Core, minimum grade C-, 22 credits

BI103 Introduction to Cell Biology	3
BI104/BI104L Introduction to Ecology and Diversity w/Lab	4
BI105 Introduction to Plants and Animals	3
BI106 Introduction to Research Methods 1 – Discovery	1
BI107 Introduction to Research Methods 2 – Genomics	1
BI200 Portfolio 1	1
BI290 Biology Seminar 1	1
BI300 Portfolio 2	1
BI390 Biology Seminar 2	2
BI400 Portfolio 3	1
BI490 Biology Seminar 3	1
BI499 Senior Research	3

Biology Focus Area Electives, minimum one class with lab from each area	
See lists above	
Focus Area I: Cell and Molecular w/Lab	
Focus Area III: Field and Ecology	
Focus Area III: Organismal	
Cognates (all required), minimum grade C-	
CH103/CH103L General Chemistry I w/Lab	4
CH104/CH104L General Chemistry II w/Lab	4
CH321/CH321L Organic Chemistry I w/Lab CH322/CH322L Organic Chemistry II w/Lab	5
MA151 Calculus I	4
PY201/PY201L General Physics I w/Lab	5
PY202/PY202L General Physics II w/Lab	5
Math or Chemistry Cognate, minimum grade C-	
MA118 Introduction to Statistics <b>OR</b>	2
CH231/CH231L Analytical Chemistry w/Lab	5
Internship Requirement, minimum grade S	
Choose BI288/BI388/BI488 Internship	
BIOLOGY (BA) REQUIREMENTS	
The Bachelor of Arts is appropriate for the student preparing for a career in the	
allied health sciences, secondary education, laboratory technician or similar for	eld.
Students are required to:	
<ul> <li>Fulfill all General Degree requirements – see above</li> </ul>	
• Fulfill all General Education requirements – see page 11, 37 credits	
• Fulfill all Biology (BA) Major requirements – see below	
Biology (BA) Core, minimum grade C-, 18 credits	
BI103 Introduction to Cell Biology and Genetics	3
BI104 Introduction to Ecology and Diversity	2
BI104L Introduction to Ecology and Diversity Lab BI105 Introduction to Plants and Animals	1
BI106 Introduction to Research Methods 1 – Discovery	2
BI107 Introduction to Research Methods 2 – Genomics	1
BI200 Portfolio 1	1
BI290 Biology Seminar 1	1
BI300 Portfolio 2	1
BI390 Biology Seminar 2	2
BI400 Portfolio 3	1
Chemistry (choose sequence 1 or sequence 2), minimum grade C-, 8 cred	its
Chemistry Sequence 1	
CH101 Introduction to Chemistry	2
CH101L Introduction to Chemistry Lab	J

CH102 Chemistry of Life CH102L Chemistry of Life Lab	3 1
Chemistry Sequence 2	
CH103 General Chemistry I	3
CH103L General Chemistry I Lab	1
CH104 General Chemistry II	3
CH104L General Chemistry II Lab	1

#### Biology Focus Area Electives, minimum one class with lab from each area

See lists above

Focus Area I: Cell and Molecular w/Lab Focus Area II: Field and Ecology Focus Area III: Organismal

#### Biology Electives (required), minimum grade C-, 10 credits

See lists above

Choose at least one Biology course 300 or above, with lab

#### Cognate Requirement, minimum grade C-

MA118 Introduction to Statistics

#### Internship Requirement, minimum grade S

Choose BI288/BI388/BI488 Internship

### **BIOINFORMATICS (BS) REQUIREMENTS**

The Bachelor of Science in Bioinformatics is appropriate for the student interested in a career at the interface of biology, computer science and mathematics. This degree program provides the preparation needed for jobs as an entry level bioinformatician or can be used to enter graduate programs in bioinformatics or computational biology.

Students are required to:

- Fulfill all General Degree requirements see above
- Fulfill all General Education requirements see page 11, 37 credits
- Fulfill all Bioinformatics (BS) Major requirements see below

#### Bioinformatics (BS) Core, minimum grade C-, 40 credits

BI103 Introduction to Cell Biology and Genetics	3
BI106 Introduction to Research Methods 1 – Discovery	1
BI107 Introduction to Research Methods 2 – Genomics	1
BI212 Genetics	3
BI213 Genetics Lab	3
BI310 Bioinformatics	3
BI310L Bioinformatics lab	2
BI200 Portfolio 1	1
BI290 Biology Seminar 1	1
BI300 Portfolio 2	1
BI390 Biology Seminar 2	2

BI400 Portfolio 3 BI490 Biology Seminar 3 BI499 Research in Biology CS131 Computer Programming 1 CS132 Computer Programming 2 CS221N Data Structures and Algorithms CS322 Database Systems Choose one of the following:	1 3 3 3 3 3
BI491B Biochemistry Lab: Nucleic Acid BI491A Biochemistry Lab: Protein BI431C CGAT	3 3 3
Bioinformatics (BS) Electives (required), minimum grade C-, 9 credits	
Electives can be any course from BI/MA/CS at major level or above	
Cognates (all required), minimum grade C-, 10 credits MA151 Calculus 1 MA171 Discrete Mathematics	4
MA252 Probability and Statistics	3
Internship Requirement, minimum grade S Choose BI288/BI388/BI488 Internship	
BIOINFORMATICS (BA) REQUIREMENTS	
The Bachelor of Arts in Bioinformatics is appropriate for the student interested in a career at the interface of biology, computer science and mathematics. This degree program provides the preparation needed for jobs as an entry level bioinformatician.  Students are required to:  Fulfill all General Degree requirements – see above  Fulfill all General Education requirements – see page 11, 37 credits	
Fulfill all Bioinformatics (BA) Major requirements – see below	
Bioinformatics (BA) Core, minimum grade C-, 35 credits BI103 Introduction to Cell Biology and Genetics BI106 Introduction to Research Methods 1 – Discovery BI107 Introduction to Research Methods 2 – Genomics BI212 Genetics	3 1 1 3
BI310 Bioinformatics BI310L Bioinformatics lab	3
BI200 Portfolio 1	2
BI290 Biology Seminar 1	1
BI300 Portfolio 2	1
BI390 Biology Seminar 2	2
BI400 Portfolio 3	1

1

BI490 Biology Seminar 3

BI499 Research in Biology	3
CS131 Computer Programming 1	3
CS132 Computer Programming 2	3
CS221N Data Structures and Algorithms	3
Choose one of the following:	
BI491B Biochemistry Lab: Nucleic Acid	3
BI491A Biochemistry Lab: Protein	3
BI431C CGAT	3
Cognates (all required), minimum grade C-, 6 credits	
MA118 Intro to Statistics	3
MA171 Discrete Mathematics	3
Internship Requirement, minimum grade S	
Choose BI288/BI388/BI488 Internship	
<b>BIOLOGY MINOR</b> , minimum grade C-, minimum 15 credits	
BI103 Introduction to Cell Biology and Genetics	3
BI104/BI104L Introduction to Ecology and Diversity w/Lab	4
BI105 Introduction to Plants and Animals	3
BI106 Introduction to Research Methods 1 – Discovery	1
BI107 Introduction to Research Methods 2 – Genomics	1
Plus any Biology (BI) course 200 level or above w/lab	
BIOINFORMATICS MINOR, minimum grade C-, 19 credits	
MA118 Introduction to Statistics <b>OR</b>	3
MA252 Probability and Statistics	3
BI103 Introduction to Cell Biology and Genetics	3
BI106 Introduction to Research Methods 1 – Discovery	1
BI107 Introduction to Research Methods 2 – Genomics	1
BI310/BI310L Bioinformatics w/Lab	5
BI431C CGAT <b>OR</b>	3
BI491B Biochemistry Lab: Nucleic Acid	3
CS131 Computer Programming 1	3

#### BIOLOGY COURSE DESCRIPTIONS

**BI101 Principles of Biology (3 cr.)** Introduces the study of life with a particular emphasis on human biology including: molecular processes, cell theory, structure and functions of organ systems, human genetics, biology of disease, and human interaction with the living world. *Co-requisite: BI101L*.

BI101L Principles of Biology Lab (1 cr.) Lab for BI101.

BI103 Introduction to Cell Biology and Genetics (3 cr.) Covers principles of cell biology and genetics. Emphasizes topics such as prokaryotic and eukaryotic cell structure and function, respiration and fermentation, photosynthesis, mitosis and meiosis, patterns of inheritance, DNA synthesis and repair, transpiration and translation, and control of prokaryotic and eukaryotic gene expression. Prerequisites: Math SAT 500 (Math ACT 19) AND high school Algebra II C- AND high school Biology C- OR MA111 College Algebra C- AND BI101 Principles of Biology C- OR permission of Biology program chair.

Bl104 Introduction to Ecology and Diversity (3 cr.) Covers principles of ecology and evolution. Emphasizes topics such as the phylogenic diversity of life, basic evolutionary patterns and processes, biodiversity and conservation, population ecology, species and community interactions, animal behavior, and ecosystems. Prerequisites: Math SAT 500 (Math ACT 19) AND high school Algebra II C- AND high school Biology C- OR MA111 College Algebra C- AND Bl101 Principles of Biology C- OR permission of Biology program chair. Co-requisite: Bl104L.

BI104L Introduction to Ecology and Diversity Lab (1 cr.) Lab for BI104.

BI105 Introduction to Plants and Animals (3 cr.) Covers principles of organismal biology. Emphasizes topics such as plant form and function, plant nutrition, plant reproduction and defense systems, animal form and function, gas exchange and circulation, sensory systems and movement, chemical signals and immune response, and reproduction. Prerequisites: Math SAT 500 (Math ACT 19) AND high school Algebra II C- AND high school biology C- OR MA111 College Algebra C- AND BI101 Principles of Biology C- OR permission of Biology program chair.

Bl106 Introduction to Research Methods 1 – Discovery (1 cr.) This open ended, research focused lab guides students through the process of isolating, purifying, amplifying, and characterizing novel bacteriophages collected from the environment. Emphasis is placed on developing proficiency with aseptic technique, scientific record keeping, experimental design, and planning. Upon successful completion of the course, students extract phage DNA for sequencing, name their bacteriophage for global database entry, and archive lysates for further study. *Pre or Corequisite: Bl103 or Bl105.* 

Bl107 Introduction to Research Methods 2 – Genomics (1 cr.) This open ended, research focused lab uses genomics to introduce students to biology as an experimental science. Students learn computational biology techniques through annotation and characterization of novel genomes. Emphasis is placed on developing knowledge and skill proficiency in bioinformations, microbiology, evolution, and molecular biology through hands-on experimentation. Upon successful completion of the course, students will submit their annotated genome for global database entry and further study. *Pre or Corequisite: Bl103 or Bl105*.

Bl110 Introduction to Nutrition for Non-Majors (3 cr.) Introduces the science of nutrition; designed for the non-science major. Topics considered in the classroom and the laboratory include: making healthy food choices, using nutrition standards and guidelines, the chemical composition of food, how food is digested and absorbed, vitamins and minerals, weight control, eating disorders, fitness, world hunger, food safety, and nutrition throughout the life cycle. Objectives include: 1) to introduce the chemical basis of nutrition, how food is digested, absorbed, metabolized, and excreted; 2) to apply theoretical knowledge to changing life circumstances due to aging, disease, or the social environment; and 3) to give a broad overview of current issues in nutrition to help students develop an awareness of nutritional issues and problems. *Co-requisite: Bl110L*.

BI110L Introduction to Nutrition Lab for Non-Majors (1 cr.) Lab for BI110.

**BI200 Portfolio 1 (1 cr.)** This course guides students through the process of developing a portfolio that demonstrates their foundational competencies in life science subject matter knowledge, professional goal setting, data analysis, laboratory methods, aesthetics, writing, presenting, experiential learning and group interactions. Emphasis is placed on collecting and documenting artifacts for each competency and reflecting on their accomplishments, areas for improvement, and future plans. This course is the first in a three-course sequence. *Prerequisite: CP105 plus 2 of the following courses: B1103, B1104, B1105.* 

**BI203 Musculoskeletal Anatomy and Physiology (3 cr.)** A system approach to the gross anatomy and physiology of the skeletal, muscular, and nervous systems of the human body. *Prerequisite: BI101 or BI105. Co-requisite: BI203L.* 

BI203L Musculoskeletal Anatomy and Physiology Lab (2 cr.) Lab for BI203.

**BI204 Systemic Anatomy and Physiology (3 cr.)** Studies the gross structure and homeostatic mechanisms of the human cardiovascular, endocrine, immune, digestive, urinary, reproductive, and respiratory systems. *Prerequisites: BI101 or BI105. Co-requisite: BI204L.* 

BI204L Systemic Anatomy and Physiology Lab (2 cr.) Lab for BI204.

**BI210 Earth Science (3 cr.)** Studies the materials and processes that interact at the earth's surface to produce the various geomorphologic structures. Includes discussion of physical and historical geology, meteorology, oceanography, and astronomy. Supplements lecture and theory by laboratory and fieldwork. Does not meet requirements for a major in Biology. *Co-requisite: BI210L. Offered alternate years.* 

BI210L Earth Science Lab (2 cr.) Lab for BI210.

**BI212 Genetics (3 cr.)** Studies the principles of inheritance, structure, and function of hereditary informational molecules, the dynamic frequency of these genes in the population, and the application of genetic principles to biological problems. Laboratory and lecture material is selected from plant, animal (including human), and microbial studies. *Prerequisites: BI103, and CH102 or CH103.* 

**BI213 Genetics Lab (3 cr.)** A laboratory course with project based experiments. Multiple genetic models will be used, such as D. melanogaster, C. elegans, S. cerevisiae and E. coli. *Pre/Co-requisite: BI212.* 

**BI220 Forensic Science (3 cr.)** Introduces the forensic sciences, which includes topics such as forensic photography, firearms and toll mark identification, examination of questioned documents, hair and fiber analysis, serology, instrumental analysis, forensic pathology, and forensic anthropology. *Prerequisites: BI101 or BI105 and (CH102 or CH103). Co-requisite: BI220L.* 

BI220L Forensic Science Lab (2 cr.) Lab for BI220.

**BI221 Invertebrate Zoology (3 cr.)** Comparative studies of the anatomy, physiology, ecology, and phylogenic relationships of representative invertebrates, with emphasis on ecology, pathology and economic importance to humans. Examines phyla as diverse as the heterotrophic protistans to the invertebrate chordates. *Prerequisite: BI104. Co-requisite: BI221L. Offered alternate years.* 

BI221L Invertebrate Zoology (2 cr.) Lab for BI221.

**BI230 Oceanography (3 cr.)** Studies the chemical and physical relationships, emphasizing their effects on the biota of the oceans. *Prerequisite: BI104. Offered alternate years.* 

**BI231/CH231 Analytical Methods (3 cr.)** Studies the theoretical foundation and skills necessary for the solution of problems encountered in the area of quantitative chemical analysis, including classical and modern methods. Gives emphasis to experimental design, statistics, evaluation and presentation of data, sampling, equilibrium dynamics of analytically important reactions, volumetric techniques, absorption and emission spectroscopy methods, electrochemical methods, and analytical and biological separations. *Prerequisite: CH104. Co-requisite: BI231L. Cross- Listed as CH231.* 

**BI241 Nutrition For Majors (3 cr.)** Introduces the theoretical chemical basis of nutrition, how food is digested, absorbed, utilized, and excreted, with a brief overview of differing nutritional states according to age categories and disease states; prepares the student to recognize nutritionally-related disorders in the clinical setting. *Prerequisites: BI105 and (CH102 or CH104). Offered alternate years.* 

BI250 Marine Biology and Oceanography Lab (3 cr.) Studies various marine ecosystems accessible in the New England area. *Pre/Co-requisite: BI230 or BI280.* 

**BI260** General Botany (3 cr.) Gives Biology major an overview of the kingdoms Monera, photosynthetic Protista, Fungi, and Plantae, with strongest emphasis on the plants. Besides the phylogenic survey of these kingdoms, the course covers the molecular basis of photosynthesis and respiration, the morphology of the various divisions, and their economic significance. *Prerequisites: BI105 and CH101 or CH103. Co-requisite: BI260L. Offered alternate years.* 

BI260L General Botany Lab (2 cr.) Lab for BI260.

**BI275 Freshwater Biology (3 cr.)** A comprehensive examination of the biology and ecology of watersheds, lakes, ponds, streams, vernal pools, and wetlands.

**BI280 Marine Biology (3 cr.)** Introduction to marine biology and ecology, with a survey of marine microbes, algae, invertebrates, and vertebrates, as well as their adaptations to life in a marine environment. Also includes a survey of the major onshore and offshore marine habitats. Open to biology teachers and advanced majors. *Prerequisite: BI104. Offered alternate years.* 

**BI285L Aquatic Biology Lab (3 cr.)** Engages students in field and laboratory methods for the observation, collection, identification, and analysis of New England's freshwater, estuarine, and marine populations and communities. Meets lab requirements for both BI275 Freshwater Biology and BI280 Marine Biology.

**BI290 Biology Seminar 1 (1 cr.)** Begins the process of teaching students the nature of scientific research, finding and reading scientific literature, formatting of research papers, and improving their scientific writing skills. Students will establish a foundation for using the scientific method to design experiments and develop an independent research project. The course includes various modes of scientific communication including written and oral presentations. *Prerequisite: Sophomore standing and two of the following courses (B1103, B1104, B1105).* 

BI300 Portfolio 2 (1 cr.) This course guides students through the process of producing a portfolio that demonstrates their developing competencies in life science subject matter knowledge, professional goal setting, data analysis, laboratory methods, aesthetics, writing, presenting, experiential learning and group interactions. Emphasis is placed on collecting and documenting artifacts for each competency and reflecting on their accomplishments, areas for improvement, and future plans. This course is the second in a three-course sequence. *Prerequisite: BI200.* 

BI310 Bioinformatics (3 cr.) Introduces bioinformatics: the combined field of biology, information science, and technology. Focuses on the analysis of proteins, genes, and genomes. Prerequisite: BI103 (BI212 recommended but not required). Co-requisite: BI310L.

**BI310L Bioinformatics Lab (2 cr.)** Lab for BI310. Includes hands-on use of computer applications to study and compare proteins, genes, and genomes.

BI343/BI343L Field Problems in Ecology (4 cr.) Studies a specialized ecological area or problem. May be selected from a wide range of marine or terrestrial ecological zones. Prerequisites: BI104 and (CH102 or CH103). Co-requisite: BI343L. Options offered currently are Field Problems in Ecology/Tropical Ecology of Costa Rica. Other options may be included as needed.

BI350/CH350 Advanced Chemistry Lab (3 cr.) The first of a project oriented, two-semester laboratory program that integrates various methods and techniques. Includes basic electronics, electrochemistry, various forms of spectroscopy and chromatography, advanced synthetic techniques, and other topics. *Prerequisite: CH322. Cross-listed with CH350.* 

BI351/CH351 Advanced Chemistry Lab (3 cr.) The second of a project oriented, twosemester laboratory program that integrates various methods and techniques. Includes writing a research proposal based on a comprehensive literature search and experimental design for the senior project, which is completed in the senior research course.

Prerequisite: CH322. Cross-listed with CH351.

BI352 Microbiology (3 cr.) Includes a historical survey, the pure culture methods of study, and the general morphology and physiology of bacteria and other microorganisms. Develops skills in solving for unknown microbes in conjunction with Bergey's Manual of Determinative Bacteriology. Prerequisites: BI103 or BI105 and (CH101 or CH103). Co-requisite: BI352L.

BI352L Microbiology Lab (2 cr.) Lab for BI352.

BI370 Comparative Anatomy and Embryology (3 cr.) Comparative study of the development and adult gross anatomy of representative vertebrates. Initial lectures are concerned with early vertebrate morphogenesis, followed by a correlation of the vertebrates with taxonomy, chronology, homology, and paleontology. *Prerequisite: BI370L. Offered alternate years.* 

BI370L Comparative Anatomy and Embryology Lab (2 cr.) Lab for BI370.

**BI390 Biology Seminar 2 (2 cr.)** Teaches critical analysis of primary journal articles and seminars. Other topics include career planning and social and ethical problems in Biology. *Prerequisites: BI103, BI104, BI105, BI290, and Junior standing.* 

BI393 Cell Biology (3 cr.) Studies the molecular basis of cell structure and function, including a discussion of the current techniques used in the field. *Prerequisite: B1103*.

**BI394 Cell Biology and Immunology Lab (3 cr.)** Emphasizes the practical application of a variety of biotechnological techniques, such as western blot, cell culture, immunoelectrophoriesis, and in situ hybridization. *Pre/Co-requisite: BI393 or BI395*.

**BI395 Immunology (3 cr.)** Provides the Biology major with a working knowledge of the immune system, including production of immunoglobulins, B and T cell interactions, and macrophage functions. Uses current research literature extensively. *Prerequisite: BI103. Offered alternate years.* 

**BI400 Portfolio 3 (1 cr.)** This course guides students through the process of developing a portfolio that demonstrates their mastery of life science subject matter knowledge, professional goal setting, data analysis, laboratory methods, aesthetics, writing, presenting, experiential learning and group interactions. Emphasis is placed on collecting and documenting artifacts for each competency and reflecting on their accomplishments, areas for improvement, and future plans. This course is the third in a three-course sequence. *Prerequisite: BI300.* 

**BI431/BI431L Current Topics in Biology (6 cr.)** Studies current topics of interest to the faculty and students. *Prerequisite: Permission of instructor. Offered alternate years.* 

BI451/BI451L Physiology w/Lab (5 cr.) Studies the universal principles involved in functional processes of cells and multi-cellular organisms. Basic phenomena such as cell organization, conversions of energy and matter in the cell, excitation, transport, membrane function, and contraction receive attention. Discusses major physiological systems of higher organisms. Prerequisites: BI105 and (CH102 or CH321), and BI370 recommended.

**BI480** Conservation Biology (3 cr.) Emphasizes the application of ecological principles to the conservation of biodiversity. Examines the major threats to biodiversity, including human exploitation of species, habitat loss, invasive species, pollution, and global climate change, as well as the methods used to monitor and resolve these concerns. Employs case studies as a tool for discussing current issues in conservation biology. *Prerequisite: BI104*.

**BI480L Conservation Biology Lab (3 cr.)** Introduces students to the use of Geographic Information Systems (GIS) for resolving conservation problems, as well as the statistical models used for population analysis. Students take field trips to learn from those who are

77

engaged in conservation biology at a practical level. Lab for BI480. Co-requisite: BI480.

**BI488 Internship: Biology (cr. var)** Internship opportunities in biology arranged by the Biology Department.

**BI490 Biology Seminar 3 (1 cr.)** Teaches critical analysis of primary journal articles and seminars. Requires an extensive research project and presentation before the Division of Natural Sciences and Mathematics. Other topics include career planning and social and ethical problems in modern biology. Required of all majors. *Prerequisites: BI390 and Senior standing.* 

**BI491/CH491 Biochemistry Lab (3 cr.)** Covers biochemical methods such as column chromatography, enzyme kinetics, peptide mapping, western blotting, and recombinant DNA technology. *Pre/Co-requisite: BI492 or BI493. Cross-listed with CH491.* 

**BI492/CH492 Biochemistry w/Lab (3 cr.)** Introduces general principles of biochemistry with special emphasis on cellular anabolic and catabolic pathways. Particular attention is given to proteins, lipids, and carbohydrates and their role in living systems. *Prerequisite: BI103. Pre/Co-requisite: CH322. Cross-listed as CH492.* 

**BI493/CH493 Biochemistry II (3 cr.)** Studies nucleic acids and DNA in depth. Focuses on the structure and function of DNA at the biochemical and genetic level. Topics also include control of prokaryotic and eukaryotic gene expression. *Prerequisite: BI103. Pre/Co-requisite: CH322. Cross-listed as CH493.* 

**BI499 Independent Study/Research (cr. var)** Includes individual work under staff supervision for well-qualified upperclassmen. A written report with an oral summary and review before two or more faculty members is required. Total credit hours for two semesters should not exceed the maximum allowed for fulfilling degree requirements. *Prerequisite: An outline of the proposed work, consent of the staff member who is to supervise, and approval by the program chair.* 

#### **Business**

Division of Professional Studies Robert Murphy, Assistant Professor Russell Bedard, Assistant Professor Jeffrey Johnson, Assistant Professor

#### MISSION:

The Business Program at Eastern Nazarene College seeks to graduate exceptional students by providing a transformative experience that builds professional competency, conceptual knowledge, analytical tools, practical skills, Christian character, and a global consciousness in preparation for a lifetime of leadership in faith and service.

#### **GOALS:**

- 1. To develop proficiencies in applied and pedagogical business scholarship sufficient to pursuing a market-driven career and/or continuing education at an advanced level.
- 2. To emphasize and promote Christian ethics as it pertains to business activities, with the goal of integrating faith and learning throughout the business programs at the college.
- To foster individuality as a tool of business conduct that achieves problem solving in a creative manner.
- 4. To provide experience in the effective application of written and oral communication skills in the professional development of students both individually and in teams.

- To cultivate skills in critical thinking, problem solving, and analysis as applied to socially responsible business practices in order to improve society worldwide.
- To expand global awareness and cultural competencies in order to excel in the dynamic global business environment.

#### DEGREES, MAJORS AND TRACKS OFFERED

**Bachelor of Science:** Accounting; Finance; Global Business; Management; Marketing

Bachelor of Arts: Business Administration (BA only recommended for double majors)

**Cross-department degrees** may be earned in the following major and degree: BS in Sport Management (See Sport Management)

**Double Major Note:** Double majors are not allowed within the Business Program due to the amount of course overlap.

Minors: Accounting, Business Administration, Digital Marketing, Finance, General Business, Global Business, Healthcare Administration, Management, Marketing, Project Management, and Supply Chain Management

#### **GENERAL DEGREE REQUIREMENTS**

- Fulfill all General Education Requirements see below
- Earn minimum of 123 Graduation Credits
- Pass Program Portfolio Assessment
- Meet minimum Cumulative GPA of 2.0

#### GENERAL EDUCATION REQUIREMENTS – 44 credits required

See page 11 for course options.

Cultural Perspectives Requirements, 32 credits

Physical Education Skills, 2 credits

Lab Science, 4 credits

Required Math: MA118 Introduction to Statistics, minimum grade C-, 3 credits Social Science, 3 credits

#### Business (BS) Core (all required), minimum grade C-, 36 credits

AC221 Principles of Accounting I	3
AC222 Principles of Accounting II	3
BA110 Introduction to Business	3
BA231 Principles of Microeconomics	3
BA232 Principles of Macroeconomics	3
BA310 Global Business	3
BA315 Management Information Systems	3
BA411 Business Law	3
BA478 Seminar in Leadership	3
FN312 Financial Management	3
MK252 Principles of Marketing	3
MT212 Principles of Management	3

Business Capstone – required for all BS degrees, minimum grade C, 3 credits		
MT431 Strategic Management	3	
<ul> <li>ACCOUNTING (BS) REQUIREMENTS</li> <li>Fulfill all General Degree requirements – see above</li> <li>Fulfill all General Education requirements – see page 11, 44 credits</li> <li>Fulfill all Business Core and Capstone requirements for BS degree – see above, 39 credits</li> <li>Fulfill all Accounting Major requirements – see below</li> </ul>		
Accounting Core (all required), minimum grade C-, 21 credits  AC331 Intermediate Accounting I  AC332 Intermediate Accounting II  AC340 Managerial Accounting  AC360 Accounting Information Systems  AC419 Federal Tax I OR  AC420 Federal Tax II  AC445 Auditing  AC488 Accounting Internship	3 3 3 3 3 3 3 3 3 3	
<ul> <li>FINANCE (BS) REQUIREMENTS</li> <li>Fulfill all General Degree requirements – see above</li> <li>Fulfill all General Education requirements – see page 11, 44 credits</li> <li>Fulfill all Business Core and Capstone requirements for BS degree – see above, 39 credits</li> <li>Fulfill all Finance Major requirements – see below</li> </ul>		
Finance Core (all required), minimum grade C-, 21 credits BA314 Business Ethics FN336 Advanced Managerial Finance FN341 Money & Banking FN372 Global Finance FN460 Investments FN471 Financial Modeling FN488 Finance Internship	3 3 3 3 3 3	
<ul> <li>GLOBAL BUSINESS (BS) REQUIREMENTS</li> <li>Fulfill all General Degree requirements – see above</li> <li>Fulfill all General Education requirements – see page 11, 44 credits</li> <li>Fulfill all Business Core and Capstone requirements for BS degree – see above, 39 credits</li> <li>Fulfill all Global Business Major requirements – see below</li> </ul>		
Global Business Core (all required), minimum grade C-, 21 credits  Option 1  FN341 Money & Banking FN372 Global Finance	3 3	

	GO320 Comparative Government <b>OR</b>	3
	GO220 World Political Geography	3
	HI/SO320 Seminar in Globalization	3
	MK450 Global Marketing	3
	MT362 Global Management	3
	BA488 International Business Internship	3
-	tion 2	
12	credits completed through International Business Institute	
	IBI331 Comparative Economic Systems	3
	IBI339 Global Marketing	3
	IBI350 International Trade and Finance	3 3 3 3
	IBI390 Global Business Strategy AND	3
	GO320 Comparative Government <b>OR</b>	3
	GO220 World Political Geography	3
	HI/SO320 Seminar in Globalization	
	Business elective credits (with advisor approval)	3
M/	ANAGEMENT (BS) REQUIREMENTS	
•	Fulfill all General Degree requirements – see above	
•	Fulfill all General Education requirements – see page 11, 44 credits	
•	Fulfill all Business Core and Capstone requirements for BS degree –	
	see above, 39 credits	
•	Fulfill all Management Major requirements – see below	
Ma	anagement Core (all required), minimum grade C-, 21 credits	
	BA324 Entrepreneurship and Business Plan Development	3
	MT311 Organizational Behavior	3
	MT335 Operations Management	3
	MT/362 Global Management	3
	MT426 Human Resource Management	3 6
	Business elective credits (with advisor approval)	O
MA	ARKETING (BS) REQUIREMENTS	
•	Fulfill all General Degree requirements – see above	
•	Fulfill all General Education requirements – see page 11, 44 credits	
•	Fulfill all Business Core and Capstone requirements for BS degree –	
	see above, 39 credits	
•	Fulfill all Marketing Major requirements – see below	
Ms	arketing Core (all required), minimum grade C-, 21 credits	
1116	MK320 Consumer Behavior	3
	MK330 Sales Management	3
	MK358 Marketing Research	3
	MK361 Integrated Marketing Communication	3
	MK450 Global Marketing	3
	Business elective credits (with advisor approval)	6
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#### BUSINESS ADMINISTRATION (BA) REQUIREMENTS (FOR DOUBLE MAJORS)

- Fulfill all General Degree requirements see above
- Fulfill all General Education requirements see page 11, 44 credits
- Fulfill all Business Administration Major requirements see below

# Business Administration (BA) Core (all required), minimum grade C-, 27 credits AC221 Principles of Accounting I 3 AC222 Principles of Accounting II 3

AC222 Principles of Accounting II	3
BA231 Principles of Microeconomics	3
BA232 Principles of Macroeconomics	3
BA324 Entrepreneurship and Business Plan Development	3
BA411 Business Law	2

MK252 Principles of Marketing 3 MT212 Principles of Management 3

3

3

## Business Capstone – required for BA degree, minimum grade C, 3 credits MT431 Strategic Management

#### BUSINESS MINORS, minimum grade C-, minimum 15 credits

#### **Accounting Minor Requirements**

FN312 Financial Management

- Required classes: AC331, AC332, AC360, AC445, and either AC340 OR AC488
- Required classes for Minors with Major outside the Program: AC221, AC222

#### **Business Administration Minor Requirements**

Required classes: AC240, BA232, BA324, BA478, MK252, MT212, MT426

#### **Digital Marketing Minor Requirements**

- Required classes: MK290; MK281, MK340, MK370, MK420
- Required classes for Minors with Major outside the Marketing Program: MK361
- Required classes for Minors with Major outside the Program: MK252; MK361, MK320

#### **Finance Minor Requirements**

- Required classes: FN336, FN341, FN372, FN460 and either FN471 OR FN488
- Required classes for Minors with Major outside the Program: FN312

#### **General Business Minor Requirements (for non-majors only)**

 Required classes: AC221 OR AC240, MK252, MT212, and choose two courses (6 credits) from Business catalog listing with advisor approval

#### **Global Business Minor Requirements**

- Required classes: MT362, FN372, MK450, FN341, HI/SO320
- Required classes for Minors with Major outside the Program: BA310

#### **Healthcare Administration Minor Requirements**

- Required classes: HC200, HC310, HC306, HC318, HC321, HC400
- Required classes for Minors with Major outside the Program: AC221, AC222, BA411

#### **Management Minor Requirements**

- Required classes: BA324, MT311, MT335, MT362, MT426
- Required classes for Minors with Major outside the Program: MT212

#### **Marketing Minor Requirements**

- Required classes: MK320, MK330, MK358, MK361, MK450
- Required classes for Minors with Major outside the Program: MK252

#### **Project Management Minor Requirements**

- Required classes: MT111, MT222, MT330, MT405
- Required classes for Minors with Major outside the Program: MT212, BA315, MT335

#### **Supply Chain Management Minor Requirements**

- Required classes: SC200, SC204, SC315, SC323, SC400
- Required classes for Minors with Major outside the Program: AC221, MT212, MT311

The International Business Institute is a cooperative overseas program in international economics and business that involves selected colleges in the Council for Christian Colleges and Universities. The Institute is designed to give students in Economics, Business, and related areas a distinctive opportunity for a term of study that incorporates the international dimension in these fields. The summer program is 10 weeks in length and includes several periods of significant residence in key locations as well as coordinated visits and presentations in the major political and economic centers of Europe, India, and China.

An essential purpose of the program is to encourage and facilitate the integration of academic study with an international field experience. The academic work is conducted in a variety of settings from the usual classroom to corporate headquarters, manufacturing plants, and governmental or international agencies. Participants will earn 12 credit hours covering Comparative Economic Systems, International Trade and Finance, Global Marketing, and Global Business Strategy. Program costs vary from year to year. Contact the Business Program Chair for details.

Prerequisites for participation in the IBI include AC221 Principles of Accounting I, MT212 Principles of Management, BA231 Principles of Microeconomics, BA232 Principles of Macroeconomics and MK252 Principles of Marketing.

A minimum cumulative grade point average of 2.75 and a satisfactory recommendation from the Business Program faculty is also required.

#### **BUSINESS COURSE DESCRIPTIONS**

AC221 Principles of Accounting I (3 cr.) Introduces the accounting cycle: analyzing and recording transactions, posting to ledgers, preparation of worksheets and financial statements. Also includes calculations for inventory valuation, depreciation of fixed assets, interest on notes, and payroll issues. Primary emphasis is on merchandising and service organizations. Offered annually.

AC222 Principles of Accounting II (3 cr.) A continuation of AC221. Principles related to accounting for partnerships and corporations addressing relevant calculations and the recording of transactions related to long-term liabilities, stocks, bonds, and income

taxation. Also includes topics related to accounting for manufacturing organizations. *Prerequisite: AC221. Offered annually.* 

**AC240** Accounting for Nonfinancial Managers (3 cr.) This course gives students a broad view of accounting's role in satisfying society's needs for information and its function in business, government and the nonprofit sector. Students learn from a user-oriented perspective about the accounting cycle, the nature of financial statements and the process for preparing them, and the use of accounting information as a basis for decision-making. *Offered alternate years*.

AC331 Intermediate Accounting I (3 cr.) Involves the intensive study of financial accounting standards, both in theory and practice, as they relate to the preparation and analysis of financial statements. Accounting problems and their impact on the financial statements are addressed in regard to current assets, fixed assets, intangible assets, liabilities, and other selected topics. Prerequisite: AC222. Offered alternate years.

**AC332 Intermediate Accounting II (3 cr.)** A continuation of Intermediate Accounting I. Accounting problems and their impact on the financial statements are addressed in regard to liabilities, investments, stockholders' equity, leases, pensions, tax allocation and other selected topics. *Prerequisite: AC331. Offered alternate years.* 

AC340 Managerial Accounting (3 cr.) Focuses on the information needs of management. The identification, measurement, accumulation, analysis, preparation, interpretation, and communication of information assist all levels of management in fulfilling organization goals. The process of gathering and analyzing this information and presenting it in a format useful to internal management is emphasized in this course. *Prerequisite: AC222. Offered alternate years.* 

AC360 Accounting Information Systems (3 cr.) Develops a framework for the analysis and design of accounting information systems. Based on this framework, the objective is then to show the student how to use accounting information systems that satisfy the transaction processing reporting, decision making, and internal control requirements. *Prerequisite:* AC222. Offered alternate years.

AC419 Federal Tax I (3 cr.) Addresses tax administration; income, deductions, and tax credits; treatment of gains and losses; income taxation of individuals, estate and gift taxation, and trusts. The primary focus of this course is on the fundamental issues related to the income taxation of individuals. Offered alternate years.

AC420 Federal Tax II (3 cr.) Examines internal revenue code and treasury regulations with respect to taxation of organizations. Also includes coverage of tax research, planning, and compliance. *Prerequisite: AC222. Offered alternate years.* 

AC445 Auditing (3 cr.) Discusses the standards and procedures of auditing accounting information and statements, internal control, verification of balance sheets and operating accounts as well as the professional and ethical responsibilities of the auditor. Prerequisite: AC332 or permission of instructor. Offered alternate years.

**BA110 Introduction to Business (3 cr.)** Students receive an introductory overview of business activities, such as gaining an appreciation of business organization, the economy, the capitalistic system, the social responsiveness of business, and decision-making. In addition, students will have the opportunity to evaluate many business careers. *Offered annually.* 

**BA231 Principles of Microeconomics (3 cr.)** Provides an introduction to the theoretical and analytical tools of economics, including but not limited to theory of demand, cost, price competition, market structures, and allocation of factors of production. *Offered annually*.

BA232 Principles of Macroeconomics (3 cr.) Provides background for understanding modern economic and business activity. The study of national income and its measurement, determination of price levels, output, employment, money and credit, expenditures, and

economic stability, government fiscal and monetary policies are included. May be taken before BA231. Offered annually.

**BA310 Global Business (3 cr.)** Provides students with an opportunity to acquire an understanding of how multinational companies can transact business successfully in response to the complex challenges of operating in a global environment. The course emphasizes the diverse economic, cultural, and institutional systems from an international, regional and global perspective, while incorporating the marketing, financial, managerial, and strategic considerations that lead to success. *Prerequisite: MT212 and MK252.*Offered annually.

**BA314 Business Ethics (3 cr.)** Provides an understanding of ethical problems in business. Examines the conceptual and practical implications of ethics for business conduct. *Prerequisite: Junior standing or permission of instructor. Offered alternate years.* 

BA315 Management Information Systems (3 cr.) Provides an overview of information systems – planning, organizing, leading, and applying information technology advancements. This course has a managerial perspective that describes how IS supports business goals and functions, defines what information resources are available to the manager, and demonstrates how the manager is involved in the information development process. *Prerequisite: Junior standing or permission of instructor. Offered annually.* 

BA324 Entrepreneurship and Business Plan Development (3 cr.) Focuses on the development of a business plan that identifies a market need, evaluates the financial viability of the venture, and organizes the resources to launch the business. Specific emphasis will be given to sources of funding for entrepreneurial ventures and the appropriate legal forms of a business to accompany chosen financing strategies. Prerequisites: Junior standing, AC221, MT212 or permission of instructor. Offered annually.

**BA357 Small Business Management (3 cr.)** Covers principles and techniques of creating and maintaining a small business enterprise and the role of the entrepreneur. Reviews accounting, personnel, marketing, management, business controls, franchising, and regulations governing small business. *Prerequisites: AC221, MK252, MT212 or permission of instructor. Offered alternate years.* 

**BA411 Business Law (3 cr.)** Covers law of business regulation, contracts, and legal controls imposed in the business-society relationship. Includes study of basic contract law, Uniform Commercial Code, and appropriate legal concepts as related to business activities. *Prerequisites: Junior standing or permission of instructor. Offered annually.* 

**BA478 Seminar in Leadership (3 cr.)** A laboratory experience providing opportunity for self development and synthesis of the major themes explored during prior courses, including social responsibility, ethics, integration of faith with practice, personal development, group process, organization and leadership. *Prerequisite: Senior standing or permission of instructor. Offered annually.* 

BA488/BA388/BA288 Business Internship (cr. var) Varying levels of internship opportunities for sophomores, juniors and seniors. Course number is based on level of responsibility of the internship. Course prefix is based on major (AC, BA, FN, MK, MT). May be repeated for credit.

**BA499/BA399/BA299 Business Seminars (3 cr.)** Covers a variety of business topics in a seminar format including such topics as non-profit management, digital and social media marketing, ecotourism, ethical leadership, corporate social responsibility, sustainability, social entrepreneurship, quality management or microfinance. The purpose of these courses is to identify current trends in the business world to better prepare students with the tools needed for action and leadership.

**FN312 Financial Management (3 cr.)** Introduces the financing of business enterprise. Financial planning and control, analysis of alternative sources and uses of capital debt and

equity, and cost of capital will be explored. Prerequisite: AC222. Offered annually.

**FN336** Advanced Managerial Finance (3 cr.) Studies specific financial cases and the need for ethics in finance within a system of well-established laws and industry regulation. Areas covered include cost of capital, capital structure, capital budgeting, dividend policy, financial analysis and forecasting, sales and lending practices, socially responsible investing, insider trading, hostile takeovers, and the ethics of bankruptcy. *Prerequisite: FN312. Offered alternate years*.

**FN341 Money and Banking (3 cr.)** Examines the monetary and banking system of the United States with emphasis on the Federal Reserve System and monetary policy. *Prerequisites: BA231 or BA232. Offered alternate years.* 

**FN372 Global Finance (3 cr.)** This course will cover issues related to both global financial markets and the financial operations of a firm within the global environment. Major topics include the global monetary systems, management of foreign exchange exposure, global financial management, taxation of global income, country risk analysis, global merger and acquisitions and global strategic planning. *Prerequisites: FN312, FN341. Offered alternate years.* 

**FN460 Investments (3 cr.)** Examines the organization and function of securities markets, valuation of securities, relationship of risk to required rates of return, and portfolio construction. This is achieved by focusing on concepts and strategies applicable to individual investors and by using the tools employed by professional portfolio managers. *Prerequisite: FN312 and FN336. Offered alternate years.* 

**FN471 Financial Modeling (3 cr.)** Examines the different financial analysis tools used by CEOs and CFOs as they make strategic financial decisions for organizations. Computerized software packages will be used to perform the analysis. *Prerequisite: FN312. Offered alternate years.* 

**FN493 Seminar in Personal Financial Management (3 cr.)** Introduces managing personal finances. Topics include investing and retirement planning, career planning, money management and budgeting, taxes, consumer credit, and purchasing strategies (home, auto, insurance). *Cross-listed as PS493.* 

HC200 Healthcare System of the United States (3 cr.) This course is your introduction to the US healthcare system and the practice of healthcare management. You'll learn how the healthcare industry functions and explore the roles and impacts of its various parts. You'll also have the opportunity to compare and contrast the US healthcare system with those of other nations. By the end of this course, you'll know the ins and outs of the American healthcare system. This is a RIZE course. Offered as needed.

HC301 Health Law & Ethics (3 cr.) This course is your overview of healthcare law in the United States. You'll learn about the ethical and legal issues that healthcare providers and administrators are confronted with in the modern workforce. By the end of this course, you'll understand how the legal environment shapes the medical profession and how to analyze and respond to a range of ethical and legal issues. This is a RIZE course. Prerequisite: BA411 – Must be taken either prior to or at the same time as this course. Offered as needed.

HC306 Health Data & Analytics (3 cr.) This course will help you understand the process of analyzing patient and other healthcare data to drive change and achieve greater efficiencies in healthcare systems. You'll build the programming and scripting skills (no prior experience needed) you need to analyze and explore data sets. By the end of this course, you'll be able to perform statistical analyses of healthcare data and turn it into actionable information to improve healthcare systems. This is a RIZE course. Recommended prerequisite: MA118 – Must be taken either prior to or at the same time as this course but is not required. Offered as needed.

HC318 Healthcare Finance (3 cr.) This course teaches you how to apply concepts of finance and accounting to healthcare. You'll learn how to track and evaluate the financial status of a healthcare organization. Additionally, you'll learn how healthcare systems finance growth, and other projects. By the end of this course, you will be able to analyze issues and trends in healthcare finance and use financial information to support healthcare decision-making. This is a RIZE course. Prerequisites: AC221, AC222 and HC200 – Must be completed prior to taking this course. Offered as needed.

HC321 Healthcare Service Operations (3 cr.) This course is your introduction to healthcare operations. You'll learn about operations and systems management within the context of healthcare systems, how hospital supply chains work, and how to analyze operational processes to improve efficiencies. By the end of this course, you'll know how to evaluate and optimize hospital processes. This is a RIZE course. Prerequisite: HC200, HC306, MT212 – Must be taken either prior to or at the same time as this course. MA118 – Recommended to be taken either prior to or at the same time as this course, but is not required. Offered as needed.

HC400 Healthcare Strategy Capstone (3 cr.) This course is the culmination of your work in the Healthcare Administration and Management program. You'll learn to apply strategic thinking to healthcare management and complete a major project in which you propose a systemic change to a hospital or hospital system. By the end of this course, you'll have honed and improved your relevant skills and created a portfolio project to show future prospective employers. This is a RIZE course. Prerequisites: HC200, HC306, HC318, HC321 and BA411 – Must be taken either prior to or at the same time as this course. Offered as needed.

**IBI331 Comparative Economic Systems (3 cr.)** A survey of the major economic systems, including the underlying ideological foundations and institutional arrangements. The major theoretical aspects of various types of systems are covered in terms of political economy and their central organizational features. Special attention is given to changes and developments in the former Soviet Union and Eastern Europe. The European Union is covered in depth along with the major Asian economies of China and Japan. *Offered only through the International Business Institute*.

**IBI339 Global Marketing (3 cr.)** The theory and practice of contemporary global marketing management. The context or environment of international marketing management is covered along with the task of marketing within a variety of national and cultural markets. Major topic areas included in this course are: the global marketing environment; global market research, including market entry and product planning; marketing strategy in a global context. Assigned projects will involve students in global marketing research and analysis as well as case studies. *Offered only through the International Business Institute*.

**IBI350 International Trade and Finance (3 cr.)** A survey of the analytical and institutional aspects of international trade and finance. The historical and contextual elements are the foundation for the examination of current theoretical and empirical approaches to international economic and financial relations. Major areas of emphasis include international finance, international trade, and regional economic integration. Special attention is also given to the issues of globalization and the problems of economic development. *Offered only through the International Business Institute.* 

**IBI390 Global Business Strategy (3 cr.)** This course is intended to integrate the field experiences and presentations by guest faculty and practitioners in the area of international business management with the reading and academic work including the recent developments and literature in this field. Students will be expected to prepare analytical reports on the various firms and institutions visited on the field seminar. Major topics covered in this course include: the role of the multinational firm in the global economy; international and global business strategy; cultural adaptation and organizational behavior

in the global firm. The discussion of ethical values and issues in global management will also be included in this course as well as in the other courses. Offered only through the International Business Institute.

**MK252 Principles of Marketing (3 cr.)** Introduces the field and practices of marketing. Planning, pricing, promotion, and distribution strategies are viewed from economic and social foundations. *Offered annually*.

MK290 Social Media Marketing (3 cr.) The average consumer spends 2.5 hours per day on social media sites and this course explores how to effectively use social media to move those consumers to action. In order to be a successful marketer, you must be able to plan a campaign that aligns with strategic goals, execute using the appropriate channels and tactics, and measure the success or failure of your efforts. By the end of this course, you will learn how to do just that. This is a RIZE course. *Prerequisite: MK252 Offered annually*.

MK320 Consumer Behavior (3 cr.) Enables the student to develop an awareness of various aspects of consumer motivation and behavior and provides an understanding of the influences of business and environment and ways that each affect consumer purchase decisions. *Prerequisite: MK252. Offered alternate years.* 

**MK330 Sales Management (3 cr.)** Deals with the totality of the sales process. This includes prospecting, relationship building, treating clients in an ethical and respectful manner, closing the sale, and servicing after the sale. The important area of management of a sales force is also presented. *Prerequisite: MK252. Offered alternate years.* 

MK340 Viral & Organic Growth (3 cr.) "Going Viral" is the goal of most web-based marketing content. Companies that generate content that can spread through the internet organically are the most successful in growing their brand. This course will teach you what drives people to share content and how to build content that is shareable and meme-worthy. By the end of this course, you will understand what drives viral sharing and learn how to facilitate it. This is a RIZE course. Offered as needed.

MK358 Marketing Research (3 cr.) Focuses on research methodology and application of research to solving marketing problems. *Prerequisites: MK252, MA118. Offered alternate years.* 

MK361 Integrated Marketing Communications (3 cr.) Analyzes the numerous methods used to communicate with customers. Organizations in private and public sectors understand that the ability to communicate effectively and efficiently with their targeted audiences is critical to the long-term success of the organization. Topics such as public relations, selling, advertising, and promotion will be explored. Students will complete the design and implementation of an integrated communication plan. *Prerequisite: MK252. Offered alternate years.* 

MK370 SEO/SEM (3 cr.) How do you find what you're looking for on the internet? Chances are you turn to Google or another search engine. Companies use Search Engine Optimization (SEO) and Search Engine Marketing (SEM) to make sure you see them first every time you turn to a search engine. By the end of this course you'll learn how to optimize a website so that it shows up first on a search, and how to build search ads that will drive customers to your website. This is a RIZE course. Prerequisite: MK252 – Must be taken either prior to or at the same time as this course. Offered as needed.

MK420 Digital Marketing Analytics (3 cr.) Marketing professionals today have access to incredible amounts of data. The ability to use this data is what differentiates successful marketing efforts from failed ones. This course will teach you how to analyze digital customer behavior data using a range of tools, and use that data to test marketing hypotheses and improve customer acquisition. This is a RIZE course. Prerequisite: MK252, any 100-level or higher Math course, and 1 course from MK-290, MK-281, or MK-370 – Must be taken either prior to or at the same time as this course. Offered as needed.

**MK450 Global Marketing (3 cr.)** The importance of thinking globally and understanding the cultural, political, and economic differences that affect consumer behavior and the marketing and distribution of products and services are explored through readings, case studies, and projects. *Prerequisites: MK252 or permission of the instructor. Offered alternate years.* 

MT111 Introduction to Project Management (3 cr.) According to a recent study of human resource managers, effective project management is one of the most coveted skills for new hires in the modern economy. This course will introduce you to the power of effective project management through two primary frameworks: waterfall and agile. You will also learn vital project-management concepts that can be applied to a wide range of industries and occupations. This is a RIZE course. Offered as needed.

MT212 Principles of Management (3 cr.) An introduction to the developments and operations of organization, fundamentals of management theory, models of human resource development, and development of management styles and techniques, planning, organizing, staffing, directing and controlling. Offered annually.

MT222 Project Planning (3 cr.) Any successful project starts with a plan. This course provides students with a deep understanding of project planning. Projects are a series of tradeoffs between scope, cost, and time, so you'll need to learn how to balance them in order to create a plan which is realistic and achievable. You will also learn how to leverage resources, and how to manage risk, quality, and stakeholder expectations to ensure project success. This is a RIZE course. Prerequisite MT111 – Must be taken either prior or at the same time as this course. Offered as needed.

MT311 Organizational Behavior (3 cr.) Studies the behavior of individuals and groups in organizational settings. Emphasis is given to topics including personality and individual differences, perception and attribution, attitudes, motivation, job design, performance and rewards, teamwork and group processes, leadership, power and politics, and decision making. Prerequisite: MT212. Offered alternate years.

MT330 Project Execution (3 cr.) In today's fast paced work environment, no project proceeds from beginning to end without encountering unforeseen challenges, and the changing scope, priorities or context of a project may require various adjustments. Additionally, project implementation and closure requires conviction and trust in established processes and personnel. In either context, these are vital parts of a project's success and are reflections of how future projects will be managed. This course covers project execution, monitoring / control, implementation / handover, DevOps, and project closure. This course is intended to finalize a student's preparation for their Project Management Practicum and Internship. This is a RIZE course. Prerequisite MT111, MT222 – Must be taken either prior or at the same time as this course. Offered as needed.

MT335 Operations Management (3 cr.) Studies issues and activities that relate to the creation of goods and services through the transformation of inputs to outputs. Topics studied include design of goods and services, process strategy, location strategies, layout strategies, project management, managing quality, supply-chain management, inventory management, and production planning. *Prerequisites: MA118, MT212. Offered alternate years.* 

MT362 Global Management (3 cr.) Focuses on the impact of global operations on the structure and organization. Major discussion topics are the challenges that managers face in establishing global operations, respecting and incorporating a variety of global cultures into the corporate culture, and responding in a competitively effective way in what is an increasingly competitive global arena. *Prerequisites: MT212 or permission of the instructor. Offered alternate years.* 

MT405 Advanced Project Management Practicum (3 cr.) This course is intended as a culmination of a student's work in the Project Management program. Students will work

in groups to manage a simulated project from scope to completion - encountering - and overcoming - challenges and complications along the way. This course will also provide students with an overview of the product life-cycle, governance, and other topics to help contextualize project work. This is a RIZE course. *Prerequisite MT111, MT 222, MT330 – Must be taken either prior or at the same time as this course. Offered as needed.* 

MT426 Human Resource Management (3 cr.) Studies the applied approach to human resource management and administration. The study will stress policy, current practices, future trends, and legal requirements. Specific activities covered will include recruiting, selection, training, developing, compensating, evaluating, and disciplining. Also emphasized will be changing demographics in the workforce, multiculturalism, ethics in human resource management, and other current issues. *Prerequisites: MT311 or permission of the instructor. Offered alternate years.* 

MT431 Strategic Management (3 cr.) Integrates previous courses through the study of problems in policy formulation and implementation. The case study approach is utilized, as are discussions regarding current topics with emphasis on strategic planning. *Prerequisites:* Senior Business Student standing or permission of the instructor. Offered annually.

**SC200 Forecasting & Logistics (3 cr.)** Have you ever wondered how that Amazon package arrived at your door so quickly? Supply chain management is the process by which organizations get us the products we consume, and companies need talented employees to help optimize their supply chain. This course will teach you how to use forecasting techniques to match supply and demand, and how to develop logistics networks that help minimize costs and deliver top customer service. This is a RIZE course. *Offered as needed.* 

**SC204 Sourcing & Operations (3 cr.)** In today's modern economy, something as simple as a razor might be manufactured in multiple countries with each part coming from a different supplier. This course will teach you how businesses manage this increasing complexity behind the scenes through efficient sourcing of suppliers and operations. You will have the opportunity to apply this knowledge by conducting a real-world case study of a product of your choosing. This is a RIZE course. *Prerequisite: SC200 – Must be taken either prior or at the same time as this course. Offered as needed.* 

**SC315 Supply Chain Management Technologies (3 cr.)** This course covers the major relevant supply chain technologies and systems. In this course you'll survey the systems that enable the supply chain in best-in-class supply chain organizations. Understanding of how information flows throughout the supply chain is critical to managing a supply chain and this will be the main focus in this course. By the end of this course, you will have gained a basic understanding of how supply chain systems work and how they make the supply chain more efficient and effective. This is a RIZE course. *Prerequisites: SC200, SC204 – Must be taken either prior or at the same time as this course. Offered as needed.* 

SC323 Supply Chain in Action (3 cr.) Everything from the best concert you saw, to your Covid-19 vaccine relies on the existence of effective supply chains. In this course, you'll learn about the application of supply chain systems to vital real-world functions. By the end of this class, you'll have a much better understanding of why supply chain management is vitally important, how it intersects with business, national and global interest, and how supply chains literally save the world. This is a RIZE course. Offered as needed.

**SC400 Supply Chain Management Practicum (3 cr.)** This course – built in collaboration with corporate advisors – is the culmination of your work as a student of supply chain management. In this course you'll be tasked with creating a series of solutions to actual problems faced by a real-world company in delivering their product to consumers. By the end of this course, you will have built experience in solving real-world supply chain problems and seeing how your solutions compare to the professionals. This is a RIZE course. *Prerequisites: SC200, SC204 – Must be taken either prior or at the same time as this course. Offered as needed.* 

## Career Planning

Division of General Education

Aprilis Diaz, Director of Career and Professional Development

**CC210 Career Planning and Decision Making (3 cr.)** Designed to assist the student undecided on a major field of study or preliminary career area. Emphasis is on the development of a rational style of decision-making and application to career and educational issues. Topics include: interest testing, self-assessment, goal development, educational and job market information, resume development, interview skills, and job search strategies.

CC402 Christian Calling, Vocation and Career Development (1 cr.) A course designed to address "Calling, Vocation and Career Development" from a Christian worldview, and to assist students in their transition from the undergraduate experience to the world of work and graduate studies. Topics include: career exploration, resume development, interviewing techniques and job search skills, networking, job market trends, graduate school preparation, work ethics and transition issues. *Prerequisite: Junior or Senior Standing*.

### Chemistry

Division of Science & Technology

Dr. Matthew Waterman, Professor

Dr. Sherryllene Pinnock-Kariuki, Assistant Professor

#### MISSION:

The mission of the Chemical Sciences Program of Eastern Nazarene College is to prepare students for lifelong learning and scientific service in the fields of biochemistry, chemistry, and pre-professional training for dentistry, medicine, nursing, pharmacy, physical therapy, teaching and veterinary medicine. The Program also guides students in the scientific endeavor of seeking truth, which is fundamental for all successful scientific inquiry.

#### **GOALS:**

- To provide broad based instruction and experience in the foundational knowledge, experimental techniques, primary literature, theoretical and ethical outlooks in Chemistry fields including: biochemistry, analytical, inorganic, organic and physical chemistry.
- To encourage an understanding and appreciation of the scientific method as a mode of inquiry including its practice as the "process" underlying the foundational knowledge of Chemistry.
- To prepare students for graduate study in science, the health professions, and/or professional employment related to Chemistry, such as teaching, technology, public service, and research.

#### **DEGREES, MAJORS AND TRACKS OFFERED**

Bachelor of Science: Biochemistry
Bachelor of Arts: Chemistry

Minor: Chemistry

**Preparatory/Pre-Graduate Studies:** Students may prepare themselves for future study by choosing elective courses that will prepare them for future study. The recommended sequences of courses include Pre-Medical, Pre-Nursing, Pre-Physical

Therapy, Pre-Occupational Therapy and Pre-Pharmacy, Pre-Pharmacy/Dual Degree Program. Each of these programs may be pursued in combination with a variety of majors – typically as part of a Biology, Biochemistry, Chemistry, or Environmental Science degree. The requirements for these areas of preparation are listed under Preparatory Courses of Study.

#### **GENERAL DEGREE REQUIREMENTS**

- Fulfill all General Education Requirements see below
- Earn minimum of 123 Graduation Credits
- Pass Program Portfolio Assessment
- Meet minimum Cumulative GPA of 2.0

#### GENERAL EDUCATION REQUIREMENTS - 37 credits required

See page 11 for course options.

Cultural Perspectives Requirements, 32 credits

Physical Education Skills, 2 credits

Social Science, 3 credits

#### **BIOCHEMISTRY (BS) REQUIREMENTS**

The Bachelor of Science in Biochemistry is appropriate for students interested in graduate studies in Biochemistry or preparation for the health professions, especially medicine.

Students are required to:

- Fulfill all General Degree requirements see above
- Fulfill all General Education requirements see page 11, 37 credits
- Fulfill all Biochemistry Major requirements see below

#### Biology Requirements (all required), minimum grade C-, 11 credits BI103 Introduction to Cell Biology and Genetics 3 BI105 Introduction to Plants and Animals 3 BI106 Introduction to Research Methods 1 – Discovery 1 BI107 Introduction to Research Methods 2 – Genomics 1 BI200 Portfolio 1 1 BI300 Portfolio 2 1 BI400 Portfolio 3 1 Chemistry Requirements (all required), minimum grade C-, 39 credits CH103/CH103L General Chemistry I w/Lab 4

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CH104/CH104L General Chemistry II w/Lab	4
CH231/CH231L Analytical Chemistry w/Lab	5
CH321/CH321L Organic Chemistry I w/Lab	5
CH322/CH322L Organic Chemistry II w/Lab	5
CH290 Chemistry Seminar 1	1
CH390 Chemistry Seminar 2	2
CH490 Chemistry Seminar 3	1
CH491 Biochemistry Lab	3
CH492 Biochemistry I	3

CH493 Biochemistry II	3
CH499 Independent Study/Research	3
Biochemistry Elective Credits, minimum grade C-, 10 credits	
Any course from the following list: BI212 Genetics	
BI213 Genetics Lab	
BI220 Forensic Science	
BI220L Forensic Science Lab	
BI230 Oceanography	
BI241 Nutrition (For Majors)	
BI310 Bioinformatics	
BI310L Bioinformatics Lab	
BI343 Field Problems in Ecology	
BI343L Field Problems in Ecology Lab	
BI352 Microbiology	
BI352L Microbiology Lab	
BI370 Comparative Anatomy and Embryology	
BI370L Comparative Anatomy and Embryology Lab	
BI393 Cell Biology	
BI394 Cell Biology/Immunology Lab	
BI395 Immunology	
BI431 Current Topics in Biology	
BI451 Physiology	
CH400 Current Topics in Chemistry	
CH499 Research in Chemistry	
EV201 Environmental Science w/Lab	
EV201L Environmental Science Lab EV331 Topics in Environmental Science	
EV 499 Research in Environmental Science	
Any MA course, 200 level or above	
Any PY course, 300 level or above	
Cognates (all required), minimum grade C-, 18 credits	
MA151 Calculus I	4
MA152 Calculus II	4
PY201/PY201L General Physics I w/Lab	5
PY202/PY202L General Physics II w/Lab	5
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Internship Requirement, minimum grade S	
Choose BI288/BI388/BI488 or CH288/CH388/CH488 Internship	
CHEMISTRY (BA) REQUIREMENTS	
Fulfill all General Degree requirements – see above	
• Fulfill all General Education requirements – see page 11, 37 credits	
• Fulfill all Chemistry (BA) Major requirements – see below	
• • •	
Chemistry (BA) Core (all required), minimum grade C-, 32 credits	
CH103/CH103L General Chemistry I w/Lab	4

CH104/CH104L General Chemistry II w/Lab	4
CH231/CH231L Analytical Chemistry w/Lab	5
CH321/CH321L Organic Chemistry I w/Lab	5
CH322/CH322L Organic Chemistry II w/Lab	5
CH491 Biochemistry Lab	3
CH290 Chemistry Seminar 1	1
CH390 Chemistry Seminar 2	2
CH400 Topics in Chemistry	3
Chemistry Elective Credits, minimum grade C-, 3 credits	
Any Biology (BI) course 200 level or above	
Any Chemistry (CH) course 400 level or above	
Any Mathematics (MA) course 200 level or above	
Any Physics (PY) course 300 level or above	
Cognates (all required), minimum grade C-, 26 credits	
BI103 Introduction to Cell Biology and Genetics	3
BI106 Introduction to Research Methods 1 – Discovery	1
BI107 Introduction to Research Methods 2 – Genomics	1
BI200 Portfolio 1	1
BI300 Portfolio 2	1
BI400 Portfolio 3	1
MA151 Calculus I	4
MA152 Calculus II	4
PY201/PY201L General Physics I w/Lab	5
PY202/PY202L General Physics II w/Lab	5
CHEMISTRY MINOR, minimum grade C-, 18 credits	
CH103/CH103L General Chemistry I w/Lab	4
CH104/CH104L General Chemistry II w/Lab	4
CH231/CH231L Analytical Chemistry w/Lab	5
CH321/CH321L Organic Chemistry I w/Lab	5

#### CHEMISTRY COURSE DESCRIPTIONS

CH100 Mathematical Frameworks for Scientific Practice (1 cr.) Guides students through the application of mathematical principles to science with an emphasis on chemistry. Students will be exposed to the use of formulas, derivations, data analysis, and graphical interpretation as it applies to basic scientific concepts. Emphasis on the application to complex word problems and critical reasoning is emphasized. The course is intended to prepare and/or support a student through the introductory science courses. This is a corequisite for CH101 and CH103 if a student tests below a certain threshold on the General Chemistry Placement Exam (GCPE).

**CH101 Introduction to Chemistry (3 cr.)** The first of a two-semester sequence designed for students who do not plan to take courses in chemistry beyond CH102 (i.e., those interested in nursing, teaching below the secondary level, and fulfilling a liberal arts requirement in the laboratory sciences). The first semester focuses on the basic principles of chemistry, including atomic theory, chemical bonding, molecular structure, solutions, acid-base systems, oxidation-reduction and nuclear chemistry. *Prerequisite: High school algebra or MA099. Co-requisite: CH101L.* 

CH101L Introduction to Chemistry Lab (1 cr.) Laboratory: Weekly sessions illustrating principles from lectures and development of basic laboratory skills. Lab for CH101.

CH102 Chemistry of Life (3 cr.) Furthers development of chemical principles with emphasis on organic and biological systems. For example, this course covers a study of the structure and chemistry of the principle classes of organic compounds as well as carbohydrates, lipids, proteins, and nucleic acids and the study of enzymes and the metabolism of carbohydrates, lipids, and nitrogen compounds. *Co-requisite: CH102L*.

**CH102L Chemistry of Life Lab (1 cr.)** Laboratory: Investigation of organic, chemical, and biological systems with further development of laboratory skills. Lab for CH102.

CH103 General Chemistry I (3 cr.) The first of a two-semester sequence that covers the principles of chemistry for those who intend to take further work in chemistry and related fields such as medicine, biology, pharmacy, physics, engineering and teaching. Topics include atomic structure, chemical composition, stoichiometry, thermochemistry, molecular structure, solids, liquids and gases, solution properties and reaction classes. Prerequisites: Math SAT 500 (Math ACT 19) AND High school algebra II C- AND High school chemistry C- OR MA111 College Algebra C- AND CH101 Introduction to Chemistry C- OR Passing the chemistry placement exam administered by the department OR Permission of Chemistry Program chair. Co-requisite: CH103L.

CH103L General Chemistry I Lab (1 cr.) Laboratory experiences that illustrate principles of thermo chemistry, gas laws, molecular structure, elementary organic synthesis and qualitative analysis. Emphasizes laboratory techniques and safety considerations. Lab for CH103.

**CH104 General Chemistry II (3 cr.)** Studies the equilibrium theory, including acid/base chemistry, rates of chemical reaction, chemical thermodynamics, oxidation-reduction, and nuclear chemistry. *Prerequisite: CH103. Co-requisite: CH104L.* 

CH104L General Chemistry II Lab (1 cr.) Laboratory: An integrated approach to the investigation of acid-base chemistry using titration, pH meter techniques and spectrophotometry; the second half of the semester is devoted to an independent project for each student, including both oral and written presentation of results. Lab for CH104.

CH231 Analytical Chemistry (3 cr.) Studies the theoretical foundation and skills necessary for the solution of problems encountered in the area of quantitative chemical analysis, including classical and modern methods. Emphasizes experimental design, statistics, the evaluation and presentation of data, sampling, equilibrium dynamics of analytically important reactions, volumetric techniques, absorption and emission spectroscopy methods, electrochemical methods, and analytical and biological separations.

Prerequisite: CH104. Co-requisite: CH231L. Cross-listed as BI231.

CH231L Analytical Chemistry Lab (2 cr.) The laboratory includes investigation of methods and techniques in volumetric analysis, Chromatography, UV-Vis and AA spectrophotometer, Voltammetry, and sampling techniques. Includes representative chemical samples from environmental air, soil, and water systems as well as biological samples. Introduces computer methods of data analysis and plotting. Emphasizes the development of analytical skills, proper laboratory record keeping, and professional outlook on laboratory work. Lab for CH231.

**CH290 Chemistry Seminar 1 (1 cr.)** Begins the process of teaching students how to use the scientific method to design experiments and develop an independent research project. The course includes various modes of scientific communication including written and oral presentations. *Prerequisite: Sophomore standing, CH104, CH321.* 

CH321 Organic Chemistry I (3 cr.) The first of a two-semester sequence which is a detailed study of the properties, reactions, bonding, structural theory, stereochemistry, spectroscopy and reactions and mechanisms of alkanes, alkenes and alkynes. *Prerequisite: CH104. Corequisite: CH321L.* 

**CH321L Organic Chemistry I Lab (2 cr.)** Representative general techniques in organic chemistry synthesis, involves the use of common spectral characterization methods. Lab for CH321.

**CH322 Organic Chemistry II (3 cr.)** Continues to study the functional groups with extension to more complex groups, including several classes of poly-functional compounds and natural products. *Prerequisite: CH321. Co-requisite: CH322L.* 

CH322L Organic Chemistry II Lab (2 cr.) Focuses on the use of techniques and methods developed in CH321L to aid in the development of individual synthesis projects. Lab for CH322.

**CH390 Chemistry Seminar 2 (2 cr.)** This course focuses on critical analysis of the primary chemical literature through the process of writing a research proposal and giving journal club presentations. Other topics include career planning and social and ethical problems in Chemistry. This is a writing and speaking intensive course. *Prerequisite: CH290 and Junior standing.* 

CH400 Current Topics in Chemistry (3 cr.) Topics of interest to both faculty and students.

**CH490 Chemistry Seminar 3 (1 cr.)** Teaches critical analysis of primary journal articles and seminars. Topics include career planning and social and ethical problems in chemistry. *Prerequisite: CH390.* 

CH491/BI491 Biochemistry Lab (3 cr.) A project based laboratory course covering biochemical methods such as column chromatography, enzyme kinetics, peptide mapping, western blotting, and recombinant DNA technology. *Pre/Co-requisite: CH492 or CH493. Cross-listed as BI491*.

CH492/BI492 Biochemistry I (3 cr.) Introduces general principles of biochemistry with special emphasis on chemical structure and bonding and the use of thermodynamic relationships. Investigates classes of inorganic compounds, including molecular, ionic, coordination, and organometallic compounds. *Prerequisite: BI103. Pre/Co-requisite: CH321. Cross-listed as: BI492. Offered in alternate years.* 

CH493/BI493 Biochemistry II (3 cr.) Studies nucleic acids and DNA in depth and focuses on the structure and function of DNA at the biochemical and genetic level. Topics also include control of prokaryotic and eukaryotic gene expression. *Prerequisite: BI103. Pre/Co-requisite: CH321. Cross-listed as BI493. Offered in alternate years* 

**CH499 Research in Chemistry (3 cr.)** Directed investigation of an individual research problem. The student, in consultation with a faculty member, must develop a complete outline of the project including background literature, necessary supplies and equipment, and a sequence of the actual work. The project includes both a written and an oral report. Research at other locations under appropriate supervision may be arranged.

#### Communication Arts

Division of Church, Society & Humanity

Marianna Krejci-Papa, PhD, Associate Professor

#### COMMUNICATION ARTS MINOR, minimum grade C-, 15 credits

domination and minor, minimum grade 6-, 1) credits		
CO106 Speech Communication	3	
CO150 Intro to Media Studies	3	
CO215 Writing Across Media	3	
CO250 Intro to Graphic Design	3	
Choose one of the following:		
CO210 Intro to Applied Linguistics	3	

CO299 Special Topics in Communication Arts	3
CO410 Persuasion and Argumentation	3

#### COMMUNICATION ARTS COURSE DESCRIPTIONS

**CO106 Speech Communication (3 cr.)** This course is designed to familiarize students with the principles of speaking in public and in small groups. Special emphasis is on development of public speaking delivery skills, organization, presentation of effective outlines, as well as audience analysis and speaker evaluation.

**CO150 Introduction to Media Studies (3 cr.)** Overviews and describes the mass communication industries, introducing all areas of professional work in radio, television, journalism and other mass communications, and illuminating the importance of communication in society.

**CO210 Introduction to Applied Linguistics (3 cr.)** Concerns teaching the English language and includes a study of the history of the English language, semantics, syntax, phonetics, phonology, morphology, dialects, grammar (traditional, structural, transformational), and usage. *Prerequisite: CP100.* 

**CO215 Writing Across Media (3 cr.)** Introduces approaches to the fundamental aspects of print, broadcast, and online journalism. *Prerequisite: CP100 or equivalent.* 

**CO250 Introduction to Graphic Design (3 cr.)** Examines the basics of graphic design and layout, with emphasis on practical skills in manual design techniques and desktop publishing.

**CO299 Special Topics in Communication Arts (3 cr.)** Study of a topic in Communication Arts of mutual interest to students and instructor.

**CO410 Persuasion and Argumentation (3 cr.)** An advanced course designed to deepen the understanding and sharpen the skills of effective argumentation and debate. Emphasizes the practical application of persuasive speaking and writing techniques. *Prerequisite: CP100 or equivalent, CO106, or permission of instructor.* 

## Computer Science

Division of Science & Technology Lisa Patacchiola, Instructor Scott Sherman, Assistant Professor Dr. Henrik Scheuer, Adjunct William Malas, III, Adjunct

#### MISSION:

The mission of the Computational Sciences Program is to commit to teaching excellence, innovative undergraduate research and the personal and intellectual growth of our students in a diverse and collaborative Christian academic community. We endeavor to provide our students with the tools and resources required to be successful Christian computer scientists well prepared to pursue graduate studies and to fit the evolving challenges of the global corporate world.

#### **GOALS:**

1. To prepare our students for professional employment and/or graduate studies in Computer Science.

97

- 2. To develop worldly citizens that can project to their environments, a healthy mix of our core beliefs that "the best in education can meaningfully coexist with the best in Christian faith."
- 3. To prepare our students to seamlessly apply their comprehensive preparation in general education to problems in the Computer Science and related disciplines.
- 4. To prepare our students to use their comprehensive preparation in general education to develop and enhance their intellectual and artistic curiosity.
- 5. To prepare our students to use their general and technical preparation towards demonstrating their writing, speaking and reading proficiency.
- 6. To prepare our students to use their general education and technical preparation to live their lives as computer scientists and inspired and guided by their Christian faith.
- 7. To prepare our students to use their general education and technical preparation to develop awareness and sensitivity to cultural diversity.

#### **DEGREES, MAJORS AND TRACKS OFFERED**

Associate of Science: Information Technology

Bachelor of Science: Computer Science, Information Technology

**Bachelor of Arts:** Computer Science

Minors: Cloud Application Development, Computer Science, Cybersecurity

#### GENERAL DEGREE REQUIREMENTS (ASSOCIATE DEGREE)

- Fulfill all General Education Requirements see below
- Earn minimum of 61 Graduation Credits
- Meet minimum Cumulative GPA of 1.8

## GENERAL EDUCATION REQUIREMENTS (ASSOCIATE DEGREE) -35 credits required

See page 11 for course options.

Cultural Perspectives Requirements, 23 credits

**CP100 Critical Writing** 

**CP105** First Year Foundations

CP150 Christian Tradition

CP195 The West in the World Since 1500

CP235 Arts and Music

CP245 Literature and Culture

CP250 The Bible in Current Perspective

CP290 East Meets West: Western Philosophy & Globalization

Physical Education Skills, 2 credits

Required Lab Science: PY102/PY102L Physical Science, 4 credits Required Math: MA111 College Algebra or Higher, 3 or 4 credits

Social Science, 3 credits

#### INFORMATION TECHNOLOGY (AS) REQUIREMENTS

- Fulfill all General Degree requirements see above
- Fulfill all General Education requirements see page 11, 35 credits
- Fulfill all Information Technology (AS) Major requirements see below

Information Technology (AS) Core (all required) minimum grade C-, 18	credits
CS121 Introduction to Computer and Information Science	3
CS131 Computer Programming I	3
CS122 Web-based Programming	3
CS210 Network and Computer Security	3
CS310 Data Telecommunication and Networks	3
CS231 Introduction to Operating Systems <b>OR</b>	3
CS322 Database Systems	3
Required Cognates (AS), minimum grade C-, 7 credits	
BA315 Management Information Systems	3
EG161/EG161L Introduction to Robotics w/Lab <b>OR</b>	4
EG232/EG232L Digital Logic w/Lab	4
Information Technology (AS) Electives, minimum grade C-, minimum 3 cm	redits
CS132 Computer Programming II	3
CS220/CS220L Advanced Microcomputer Interfacing w/Lab	4
CS410 Java Programming	3
GENERAL DEGREE REQUIREMENTS (BACHELOR DEGREE)	
• Fulfill all General Education Requirements – see below	
• Earn minimum of 123 Graduation Credits	
Pass Program Portfolio Assessment	
Meet minimum Cumulative GPA of 2.0	
GENERAL EDUCATION REQUIREMENTS (BACHELOR DEGREE) – 46 cred	ito.
required	115
See page 11 for course options.	
Cultural Perspectives Requirements, 32 credits	
Physical Education Skills, 2 credits	
Required Lab Science: PY201/PY201L General Physics I, 5 credits	
Required Math: MA151 Calculus I, 4 credits	
Social Science, 3 credits	
Computer Science (BA/BS) Core (all required) minimum grade C-, 19 c	redits
CS121 Introduction to Computer and Information Science	3
CS131 Computer Programming I	3
CS132 Computer Programming II	3
CS220/CS220L Advanced Microcomputer Interfacing w/Lab	4
CS221N Data Structures & Algorithms	3
CS310 Data Telecommunications and Networks	3
COMPUTER SCIENCE (BS) REQUIREMENTS	
• Fulfill all General Degree Requirements – see above	
• Fulfill all General Education Requirements – see page 11, 46 credits	
• Fulfill all Computer Science Core Requirements – see above, 19 credits	
• Fulfill all Computer Science (BS) Major Requirements – see below	

Computer Science (BS) Additional Requirements, minimum grade C-, 2	21 credits
CS322 Database Systems	3
CS325 Introduction to Computer Engineering Design	3
CS331 Operating Systems	3
CS410 Java Programming	3
CS420 Topics in Computer Science <b>OR</b>	3
CS288/CS388/CS488 Computer Science Internship	3
CS451-A Senior Design Project	3
CS451-B Senior Design Presentation	3
Required Cognates (BS), minimum grade C-, 18 credits	
EG161/EG161L Introduction to Robotics w/Lab	4
EG232/EG232L Digital Logic w/Lab	4
MA152 Calculus II	4
MA171 Discrete Mathematics	3
MA252 Probability and Statistics	3
COMPUTER SCIENCE (BA) REQUIREMENTS	
• Fulfill all General Degree Requirements – see previous	
• Fulfill all General Education Requirements – see page 11, 46 credits	
• Fulfill all Computer Science Core Requirements – see above, 19 credits	
• Fulfill all Computer Science (BA) Major Requirements – see below	
Computer Science (BA) Additional Requirements, minimum grade C-,	12 credits
CS322 Database Systems <b>OR</b>	3
CS331 Operating Systems	3
CS325 Introduction to Computer Engineering Design	3
CS451-A Senior Design Project	3
CS451-B Senior Design Presentation	3
Computer Science (BA) Electives, minimum grade C-, 6 credits	
CS322 Database Systems	3
CS331 Operating Systems	3
CS410 Java Programming	3
CS420 Topics in Computer Science	3
CS288/CS388/CS488 Computer Science Internship	3
Required Cognates (BA), minimum grade C-, 18 credits	
EG161/EG161L Introduction to Robotics w/Lab	4
EG232/EG232L Digital Logic w/Lab	4
MA118 Introduction to Statistics	3
MA171 Discrete Mathematics	3
PY102/PY102L Physical Science w/Lab	4
INFORMATION TECHNOLOGY (BS) REQUIREMENTS	
• Fulfill all General Degree Requirements – see previous	
• Fulfill all General Education Requirements – see page 11, 46 credits	
• Fulfill all Information Technology (BS) Major Requirements – see below	

Information Technology (BS) Core (all required) minimum grade C-	, 33 credits
CS121 Introduction to Computer and Information Science	3
CS122 Web-based Programming	3
CS131 Computer Programming I	3
CS210 Network and Computer Security	3
CS231 Introduction to Operating Systems	3
CS310 Data Telecommunications and Networks	3
CS322 Database Systems	3
CS325 Introduction to Computer Engineering Design	3
CS410 Java Programming	3
CS451-A Senior Design Project	3
CS451-B Senior Design Presentation	3
Required Cognates (BS), minimum grade C-, 14 credits	
BA315 Management Information Systems	3
EG161/EG161L Introduction to Robotics w/Lab	4
EG232/EG232L Digital Logic w/Lab	4
MA118 Introduction to Statistics	3
Information Technology (BS) Electives, minimum grade C-, minimum	1 6 credits
EG452 Applied Programming	3
CS132 Computer Programming II	3
CS221N Data Structures & Algorithms	3
CS220/CS220L Advanced Microcomputer Interfacing w/Lab	4
COMPUTER SCIENCE MINORS, minimum grade C-, minimum 12 cre	dits
Cloud Application Development Minor Requirements	
• Required classes: CS131, CS132, CS215, CS221N, CS315, CS316, CS405	
<ul> <li>Required classes for Computer Science and Computer Engineering Majo CS315, CS316, CS405</li> </ul>	rs: CS215,
<ul> <li>Required classes for Engineering and Information Technology Majors: C CS221N, CS315, CS316, CS405</li> </ul>	S215,
Computer Science Minor Requirements	
CS121 Introduction to Computer and Information Science	3
CS131 Computer Programming I	3
CS220/CS220L Advanced Microcomputer Interfacing w/Lab	4
Choose two of the following:	
CS132 Computer Programming II	3
CS221N Data Structures & Algorithms	3
CS310 Data Telecommunications and Networks	3 3
CS322 Database Systems	
CS331 Operating Systems	3

#### **Cybersecurity Minor Requirements**

- Required classes: CS114, CS118, CS131, CS203, CS210, CS301, CS400
- Required classes for Computer Science Majors: CS114, CS118, CS203, CS210, CS301, CS400
- Required classes for Information Technology Majors: CS114, CS118, CS203, CS301, CS400
- Required classes for Engineering Majors: CS114, CS118, CS203, CS210, CS400

#### COMPUTER SCIENCE COURSE DESCRIPTIONS

CS114 Introduction to Cybersecurity (3 cr.) In today's world, no one is safe from cyberattacks, but everyone can be prepared. This course will teach you how malicious actors use social skills and technology to facilitate cyber-attacks and provide you with the tools and information you need to defend against those attacks. Whether you pursue one of the many available jobs in cybersecurity or just want to secure your own privacy, you'll learn how to make the Internet safer. This is a RIZE course.

**CS118 Cybercrime and Governance (3 cr.)** Cybercrime is one of the biggest threats companies face on a daily basis, and they are constantly looking for new hires to help protect them. In this course, you will get a firsthand look at the methods used to commit cybercrimes. You will also learn how governments detect, investigate, and stop these crimes, and become familiar with the laws and policies in place to deter cybercriminals. This is a RIZE course.

**CS121 Introduction to Computer and Information Science (3 cr.)** This course will teach the fundamentals of programming logic, design and implementation. The student will learn to think logically and design programs. Examples will be implemented in several languages giving students an understanding of how languages work to implement the programmer's logic and design. Students with no programming background are strongly encouraged to take this course before pursuing other languages.

**CS122 Web-based programming (3 cr.)** This course will build on what was taught in CS121. It will cover more advanced web programming techniques and cover different programming languages that can be used in Web Applications. In addition, it will cover some of the web frameworks available, how to get started with them and the pros and cons involved with each one. This course will teach a student the knowledge and skills required to create dynamic and interactive web sites using advanced toolsets. *Prerequisite: CS121*.

**CS131 Computer Programming I (3 cr.)** This course introduces problem solving methods and algorithm development. The course emphasizes structured programming and general programming techniques. Topics include input/output, arithmetic, conditional testing, looping, one- and two-dimensional arrays, strings, and simple search/sort methods. Students complete several programming assignments. *Prerequisite: High school algebra. Offered spring.* 

**CS132 Computer Programming II (3 cr.)** Continues from Computer Programming I, covering multidimensional arrays, user-defined data types, record data structure, sequential and binary files, sets, pointers, functions, programs with multiple files and the standard library. Introduces data structures including linked lists. Students complete several programming assignments using intermediate programming techniques. *Prerequisite: CS131. Offered fall.* 

**CS203 Modern Cybersecurity (3 cr.)** Just as technology is constantly evolving, so too must cybersecurity to keep pace with changing trends. In this class, you will learn about the changing landscape of cybersecurity, emerging technologies that are likely to be targeted, and new forms of cyber-attack being launched. By the end of the course, you will be able to implement the most up-to-date practices in cybersecurity in order to protect against attacks. This is a RIZE course.

**CS210 Networks and Security (3 cr.)** This course introduces the principles and practices of security in computer networks. It covers the foundations of securing computer networks. Students learn the risks, and concerns of network systems and enhance their abilities to perform security research. They learn about common network-based attacks and how to identify, evaluate and mitigate security concerns and risks. *Prerequisite: CS131.* 

**CS215 Google Cloud Computing Foundations (3 cr.)** This course will introduce you to the fundamentals of Cloud Computing, Infrastructure and Networking, and will explore how the cloud is used in a range of situations, including IT, App Development and Machine Learning. By the end of the course you will know what the cloud is, and how to use it effectively. This course uses the Google Cloud Platform (GCP) and was built in concert with the Google Cloud Learning Services team. This is a RIZE course. *Prerequisites: CS121 and CS122.* 

CS220/EG351 Advanced Microcomputer Interfacing (3 cr.) Introduces the field of microcomputers. Topics include microcomputer organization and architecture, machine and assembly language programming, interrupts, serial interfacing, D/A and A/D interfacing. Laboratory required. Cross-listed as EG351. Prerequisite: MA171 or EG323. Co-requisite CS220L/EG351L.

CS220L/EG351L Advanced Microcomputer Interfacing Lab (1 cr.) Lab for CS220.

CS221N Data Structures & Algorithms (3 cr.) Analyses design and implementation of algorithms of the manipulation of data structures. Topics include single and multiple linked lists, stacks, queues, multi-dimensioned and sparse arrays, binary and general trees, AVL height balancing, graphs, networks, and shortest path and minimum spanning tree algorithms. This course will also introduce the analysis of the run-time behavior of algorithms and how design considerations affect algorithm performance. Topics include the analysis of greedy algorithms, divide and conquer techniques, and dynamic programming. Students complete several programming assignments using advanced programming techniques. *Prerequisite: CS132. Co-requisite: MA171. Offered spring.* 

**CS231 Introduction to Operating Systems (3 cr.)** This course will provide students with an introduction to the major hardware and software components of computer-based operating systems. There will be a historical overview and case studies; discussion of multi-tasking, scheduling, and mutual exclusion/deadlock; overview of file management, memory management and virtualization. Students will also learn how to troubleshoot and solve common computing problems. Studies will be enhanced with hands-on activities and small scripting programs. *Prerequisite: CS121.* 

**CS288 Internship Computer Science (cr. var)** Internship opportunities in computer science arranged by the Computer Science department.

**CS301 Cyber Forensics (3 cr.)** When cybercrimes do happen, you need to know how to respond. This course examines the tools and techniques used to perform cyber forensics and conduct investigations into cybercrimes. By the end of the course, you'll be able to gather and analyze important digital evidence and gain skills in analyzing cybercrime that are in demand from companies across the country. This is a RIZE course. *Prerequisites: CS114 and CS118.* 

**CS310 Data Telecommunications and Networks (3 cr.)** An in-depth experience of telecommunications fundamentals, including voice-video-data from LAN, MAN, and WAN including switched network systems. Studies data communication and telecommunication models and standards, concepts, and standard organizations and practices installation, configuration, systems integration and management of technologies. *Prerequisite: CS210 or CS221N. Offered alternate years.* 

CS315 Application Development I (3 cr.) Modern development relies on frameworks which provide developers with powerful tools to speed up development. If you want to build apps, you need to understand how to use frameworks. This course, which has been

built in collaboration with Google, will introduce you to Django – a framework used for data-driven web applications. You'll learn the fundamentals of Django, improve your database management skills, and begin developing your own apps. This is a RIZE course. *Prerequisites: CS121 and CS122.* 

**CS316 Application Development II (3 cr.)** This course – built in collaboration with Google is the second part of the application development series. In this course, you will put your skills into practice and build your own application. By the end of this course, you'll have a greater understanding of the technologies that power modern apps and be able to build your own. This is a RIZE course. *Prerequisites: CS121, CS122, and CS315.* 

CS322 Database Systems (3 cr.) An introduction to the concepts and methods employed in the design and implementation of database management systems. The relation, network, and hierarchical models are covered, as well as the entity relationship. Data definition and manipulation languages including relational algebra, relational calculus, and SQL are presented as well as issues related to concurrent access and recovery. Students will complete a database project. Prerequisite: Either CS122 and CS131, or CS221N. Offered alternate years.

CS325/EG325 Introduction to Computer Engineering Design (3 cr.) An introduction to the process of computer engineering project design. A systems approach will be used. Students will research topics towards the proposal of an actual project to be built in the follow-on courses, CS451-A/EG451-A and CS451-B/EG451-B. *Prerequisites: Junior Standing.* 

**CS331 Operating Systems (3 cr.)** An overview of operating system concepts. Topics include layered architecture, CPU scheduling, memory management, device management, file systems and process management. Design of specific operating systems such as UNIX will be considered. Students will complete projects designing or modifying parts of an existing operating system. *Prerequisite: CS221N. Offered alternate years.* 

**CS388 Internship Computer Science (cr. var)** Internship opportunities in computer science arranged by the Computer Science department.

**CS400 Capstone Ethical Hacking (3 cr.)** To stop a hacker, you need to be able to think like a hacker. In this course, you will learn hands-on techniques for attacking and penetrating networks and systems. You will be prepped with tools to launch these offensive tactics, and then complete a hands-on project where they are asked to ethically hack a real system. This is a RIZE course. *Prerequisite: CS210*.

CS405 Cloud Applications Practicum (3 cr.) Software engineers are frequently tasked with building applications using unfamiliar elements. This course will ask you to build an application using the Google Cloud Platform (GCP) and one or more unfamiliar technologies or tools you select. By the end of this course, you will learn how to tackle unfamiliar situations, a key skill for any programmer, and improve your skills in programming and software development. This course will provide you with a project to add to your portfolio of work. This is a RIZE course. *Prerequisites: CS121, CS122, CS315, CS316, and CS221N.* 

**CS410** Java Programming (3 cr.) This course addresses software development using advanced object-oriented concepts and JAVA. It covers concurrency and synchronization issues and advanced topics of the object paradigm such as inheritance and polymorphism. It introduces the programming of graphics using JAVA Swing classes and examines File Streams and I/O Processing in detail. It compares the procedural paradigm with the object paradigm. It also addresses issues of programming with multiple processes and programming of systems with exception-handling capabilities. These concepts are introduced in the context of developing software using software tools, including libraries of components. *Prerequisite: Either CS122 and CS131, or CS221N. Offered alternate years.* 

**CS420 Topics in Computer Science (3 cr.)** This course will cover some of the current advanced topics in computer science, algorithms, complexity and architecture. The exact topic will vary

based on needs, trends and student interest. Prerequisite: Consent of instructor.

CS451-A/EG451-A Senior Design Project (3 cr.) The purpose of the Senior Design Project is to provide students with design experience comparable with entry level computer science assignments or research experience comparable to entry level graduate research in computer science. The Senior Design projects are largely expected to address challenging computer science problems preferably in a world area. The Senior Design projects will utilize a Software Engineering design approach to Software Development. The Senior Research projects are largely expected to begin investigations of challenging problems preferably in a world area. The Senior Research projects will utilize scientific method to approach well formulated problems by faculty and corporate. A formal technical report or a research paper in support of a satisfactory presentation to peers and/or faculty must be completed prior to course grade submission. *Prerequisites: Senior standing, CS325*.

CS451-B/EG451-B Senior Design Presentation (3 cr.) The purpose of the Senior Design Presentation is to complete the work done on the student's Senior Design Project. Substantial time is allotted for the senior design project or research write-up and for writing a paper publishable to a peer reviewed undergraduate journal. The student will also be preparing for the senior's presentation or thesis defense which is part of the annual Physics & Engineering Seminar Series. *Prerequisite: CS451-A/EG451-A.* 

**CS488 Internship Computer Science (cr. var)** Internship opportunities in computer science arranged by the Computer Science department.

**CS499 Independent Study (1-3 cr.)** Students may undertake a study in an area of interest with approval from the program chair.

### Crime, Law and Justice

Division of Church, Society & Humanity Carolyn Riley, Assistant Professor Dr. Victoria Schow, Associate Professor

#### MISSION:

To prepare students for graduate school in the field, and/or employment in fields where a bachelor's degree in Crime, Law and Justice is beneficial, in a distinctively Christian context that helps students integrate their faith and their discipline in their personal and professional development.

#### GOALS:

- 1. A student will be able to reflect upon and apply Christian principles to their future work in fields such as advocacy, law, or policing.
- 2. A student will prepare for further professional development, graduate training, and/ or employment in the field.
- 3. A student will understand the complexities of the criminal justice system.
- 4. A student will deepen self-awareness, appreciation of diversity, and acceptance of others.
- 5. A student will enhance their oral and written communication skills by incorporating effective listening, constructive interpersonal communication, use of both the American Psychology Association (APA) writing style and Blue Book (a uniform system of citation), as well as other skills conducive to meaningful communication.
- 6. A student will engage in fieldwork that provides an opportunity to integrate theory with practice.

#### **DEGREES, MAJORS AND TRACKS OFFERED**

**Bachelor of Arts:** Crime, Law and Justice – General Track; Crime, Law and Justice – Advocacy Track; Crime, Law and Justice – Law Enforcement Track; Crime, Law and Justice – Legal Track

**Double Majors:** Crime, Law and Justice and Psychology – Social Relations Track **Minor:** Crime, Law and Justice

#### **GENERAL DEGREE REQUIREMENTS**

- Fulfill all General Education Requirements see below
- Earn minimum of 123 Graduation Credits
- Pass Program Portfolio Assessment
- Meet minimum Cumulative GPA of 2.0

#### GENERAL EDUCATION REQUIREMENTS – 44 credits required

See page 11 for course options.

Cultural Perspectives Requirements, 32 credits

Physical Education Skills, 2 credits

Lab Science, 4 credits

Required Math: PS251 Statistics for Social Sciences, minimum grade C-, 3 credits Social Science, 3 credits

#### CRIME, LAW AND JUSTICE GENERAL TRACK (BA) REQUIREMENTS

- Fulfill all General Degree Requirements see above
- Fulfill all General Education Requirements see page 11, 44 credits
- Fulfill all Crime, Law and Justice General Track Major Requirements see below

## Crime, Law and Justice General Track Core (all required), minimum grade C-, 24 credits

CJ190 Introduction to Crime, Law and Justice	3
CJ225 Law, Courts and Procedures	3
CJ260 Conflict Resolution	3
CJ315 Policing and Investigations	3
CJ350 Criminology and Victimology	3
CJ352 Junior Seminar in Crime, Law and Justice	1.5
CJ390 Legal Research, Writing and Oral Argument	3
CJ430 Field Experience	3
CJ453 Senior Seminar in Crime, Law and Justice	1.5

#### Required Cognates, minimum grade C-, 9 credits

PS110 Introduction to Psychology	3
PS351 Methods of Social Research	3
SO110 Introduction to Sociology	3

#### CRIME, LAW AND JUSTICE ADVOCACY TRACK (BA) REQUIREMENTS

- Fulfill all General Degree Requirements see above
- Fulfill all General Education Requirements see page 11, 44 credits
- Fulfill all Crime, Law and Justice Advocacy Track Major Requirements see below

Crime, Law and Justice Advocacy Track Core (all required), minimum grad	le C-,
33 credits	
CJ190 Introduction to Crime, Law and Justice	3
CJ225 Law, Courts and Procedures	3
CJ260 Conflict Resolution	3
CJ270 Advocacy	3
CJ315 Policing and Investigations	3
CJ350 Criminology and Victimology	3
CJ352 Junior Seminar in Crime, Law and Justice	1.5
CJ390 Legal Research, Writing and Oral Argument	3
CJ430 Field Experience	3
CJ453 Senior Seminar in Crime, Law and Justice	1.5
PS240 Lifespan Development	3
Choose one of the following:	
PS342 Child Psychology	3
PS343 Adolescent Psychology	3
Required Cognates, minimum grade C-, 12 credits	_
PS110 Introduction to Psychology	3
PS313 Social Psychology	3
PS351 Methods of Social Research	3
SO110 Introduction to Sociology	3
CRIME, LAW AND JUSTICE LAW ENFORCEMENT TRACK (BA) REQUIREMEN	TS
Fulfill all General Degree Requirements – see above	
• Fulfill all General Education Requirements – see page 11, 44 credits	
• Fulfill all Crime, Law and Justice Law Enforcement Track Major Requirements –	
see below	
See Delow	
Crime, Law and Justice Law Enforcement Track Core (all required),	
minimum grade C-, 27 credits	
CJ190 Introduction to Crime, Law and Justice	3
CJ225 Law, Courts and Procedures	3
CJ260 Conflict Resolution	3
CJ315 Policing and Investigations	3
CJ350 Criminology and Victimology	3
CJ352 Junior Seminar in Crime, Law and Justice	1.5
CJ390 Legal Research, Writing and Oral Argument	3
CJ430 Field Experience	3
CJ453 Senior Seminar in Crime, Law and Justice	1.5
Choose one of the following:	
PS313 Social Psychology	3
PS372 Abnormal Psychology	3
	3
Required Cognates, minimum grade C-, 12 credits	
PS110 Introduction to Psychology	3
PS351 Methods of Social Research	3

SO110 Introduction to Sociology SO212 Human Diversity	3
<ul> <li>CRIME, LAW AND JUSTICE LEGAL TRACK (BA) REQUIREMENTS</li> <li>Fulfill all General Degree Requirements – see above</li> <li>Fulfill all General Education Requirements – see page 11, 44 credits</li> <li>Fulfill all Crime, Law and Justice Legal Track Major Requirements – see below</li> </ul>	
Crime, Law and Justice Legal Track Core (all required), minimum grade C-24 credits  CJ190 Introduction to Crime, Law and Justice	3
CJ225 Law, Courts and Procedures CJ260 Conflict Resolution CJ270 Advocacy CJ250 Criminal and Victimal and	3 3 3
CJ350 Criminology and Victimology CJ352 Junior Seminar in Crime, Law and Justice CJ390 Legal Research, Writing and Oral Argument	3 1.5 3
CJ430 Field Experience CJ453 Senior Seminar in Crime, Law and Justice  Required Cognates, minimum grade C-, 18 credits	3 1.5
CO106 Speech Communication GO455 Seminar in Christianity and the Law PH331 Critical Thinking and Logic PS110 Introduction to Psychology PS351 Methods of Social Research	3 3 3 3 3
SO110 Introduction to Sociology  CRIME, LAW AND JUSTICE AND PSYCHOLOGY – SOCIAL RELATIONS TRACK (BA) REQUIREMENTS	3
<ul> <li>Note: This is a double major.</li> <li>Fulfill all General Degree Requirements – see above</li> <li>Fulfill all General Education Requirements – see page 11, 44 credits</li> <li>Required Math: PS251 Introduction to Statistics for Social Sciences, 3 credits</li> <li>Required Social Science: Fulfilled with cognate PS110 Introduction to Psychology 3 credits</li> <li>Fulfill all Crime, Law and Justice General Track Major Requirements – see above, 33 credits</li> <li>Fulfill all Psychology Social Relations Major Requirements – see below</li> </ul>	•
Psychology – Social Relations (all required) minimum grade C-, 21 credits PS240, Lifespan Development PS313 Social Psychology PS314 Group Psychology PS331 Theories of Personality PS352 Junior Psychology Seminar PS372 Abnormal Psychology	3 3 3 1.5 3

PS430 Field Experience	3
PS453 Senior Psychology Seminar	1.5
Psychology Elective, minimum grade C-, 3 credits	
Choose one PS course – see descriptions under Psychology Program.	
CRIME, LAW AND JUSTICE MINOR, minimum grade C-, 15 credits	
CJ190 Introduction to Crime, Law and Justice	3
Four additional 3 credit CJ courses	12

## CRIME, LAW AND JUSTICE COURSE DESCRIPTIONS

CJ190 Introduction to Crime, Law and Justice (3 cr.) Provides an introduction to crime, law and justice. The course will focus the understanding of the American Judicial System and the administration criminal and civil justice. The course will also address historical and current issues which shape the American justice system. Offered annually.

CJ225 Law, Courts and Procedures (3 cr.) This course provides an introduction to the law and the American legal system; Students will learn about the many sources of law including constitutions, statutes, cases, and regulations, and the application of each in the American legal system. Topics include Constitutional rights, legal procedure, ethical obligations and regulations. Current trends and developments which shape the legal system will be examined. Offered annually.

**CJ260 Conflict Resolution (3 cr.)** The course will focus on the development of skills utilized in conflict resolution. Topics covered will include negotiation techniques, persuasive oral and written argumentation, and mediation skills. *Offered alternate years.* 

**CJ270 Advocacy (3 cr.)** The course studies multiple facets of victim, child, and community advocacy. The course will focus on roles and responsibilities of advocates in the judicial system, legislative process, and community based initiatives. *Offered alternate years*.

**CJ315 Policing and Investigation (3 cr.)** Covers law enforcement policies and procedures; including, police ethics, arrests, use of discretion, and agency management. The course will also cover investigative processes and procedures; including crime scene analysis, collection and handling of evidence. *Prerequisite: CJ190. Offered alternate years.* 

CJ341 Corrections and Alternatives (3 cr.) Explores the history and operation of prisons and jails in the United States and other countries. Covers the management and operation of corrections facilities from the perspective of employees and incarcerated persons, as well as ideas dealing with innovative correction techniques and the future of corrections in the United States. *Prerequisite: CJ190. Offered alternate years.* 

CJ350 Criminology and Victimology (3 cr.) A social scientific study of crime and victimology in society, including an examination of the historical theories of crime, and an analysis of the methods and research to respond to these crimes at both the legal level and in the treatment of victims. *Prerequisite: CJ190. Offered alternate years.* 

CJ352 Junior Seminar (1.5 cr.) The course has three main objectives; 1) Expose students to current critical issues in criminal justice with particular emphasis on the current United States Supreme Court docket. 2) Guides the Crime, Law and Justice major in preparing for the senior comprehensive exam in criminal justice. And 3) provide a resource in career planning for students, as they move toward specific post-graduation goals of either seeking criminal justice related employment or applying for graduate school. Both individual and group activities are scheduled in order to facilitate the senior comprehensive preparation and career planning. *Prerequisite: CJ190; Junior Standing. Offered spring.* 

**CJ390 Legal Research, Writing and Oral Argument (3 cr.)** Explores the fundamentals of legal research and writing including, research sources, and document drafting. Students will also explore litigation techniques of persuasive oral presentations. *Prerequisite: CJ190. Offered annually.* 

CJ430 Field Experience in Crime, Law and Justice (3 cr.) Course involves a supervised practical experience in a vocation closely related to the student's interest and/or future plans in Crime, Law and Justice. Readings, written assignments and group meetings assist the student in reflecting on and integrating the knowledge gained from involvement at an approved placement site. Prerequisite: Attendance at a pre-placement meeting. Recommended for Junior year. Cross-listed as SO430, PS430. Offered fall. Offered summer with special permission by the program chair.

**CJ453 Senior Seminar (1.5 cr.)** Guides student in their preparation for the comprehensive examination in criminal justice. The course continues facilitating the career planning begun in Junior Seminar. Students will develop post-graduation goals of either seeking justice related employment, applying for graduate school or law school. *Prerequisite: CJ190; Senior Standing. Offered fall.* 

## Education

**Division of Professional Studies** 

Dr. Robert Purpura, Associate Professor

Dr. Wendy Johnson, Assistant Professor

### MISSION:

The mission of the Division of Teacher Education is to prepare graduates who are professional educators in a globally diverse society. We believe that the process of educating teachers must value both academic preparation grounded in the best available research, theory, and practice, and the immediate application of these concepts, placing future teachers early and often in the public and private schools of the Greater Boston area. We foster professional responsibility which will manifest itself in continued educational growth, deep sensitivity to the needs of others, and true respect for each individual. Students entering the teaching profession will develop and demonstrate a high level of teaching competency in the classroom.

### GOALS:

- Teacher education candidates will develop skills in problem solving, professional exploration and reflective teaching.
- 2. Teacher education candidates will develop skills to collaborate and cooperate with peers in the program as well as with the staff of the school in which pre-practicum and practicum experiences occur.
- Teacher candidates will understand the integration of content knowledge, teaching pedagogy, process, and their inherent relationships as part of their development toward professional educators.
- 4. Teacher candidates will understand that foundation studies for all Teacher Education includes a broadly-based liberal arts core curriculum, professional education studies and an understanding of the values and beliefs of the Christian world view.
- 5. Teacher candidates will develop skills as reflective, effective, skilled facilitators of learning who are prepared to process information in a technologically advanced

- society and to adapt to different teaching settings, varying exceptionalities, and diverse cultural backgrounds.
- Teacher candidates will understand and model in the classroom a wide range of
  effective teaching/learning techniques, computer-based multimedia technologies,
  and the application of current and established research on teaching and learning.
- 7. Teacher candidates will develop skills to foster effective interaction, engagement and building of partnerships with families/caregivers and communities.

### DEGREES, MAJORS, TRACKS, AND LICENSURE PROGRAMS OFFERED

**Bachelor of Arts:** Early Childhood Education PreK-2; Elementary Education 1-6; Secondary Education 8-12 (History 5-12); Teacher of Students with Moderate Disabilities (TSMD) PreK-8 or 5-12

Associate of Arts: Early Childhood Education

## PROGRAM REQUIREMENTS

Students interested in pursuing a teaching career must gain licensure from the state where they will be employed. Each state's licensure requirements differ, but graduates of Eastern Nazarene College who have completed the undergraduate or graduate teacher education program may be eligible to be licensed in over 30 states and Washington, DC, because ENC is an approved member of the Interstate Certification Compact. The Teacher Education Program at Eastern Nazarene College exceeds the licensure requirements of the Commonwealth of Massachusetts. ENC's education program is designed with these requirements in mind, incorporating the newest methods of teacher preparation that are gaining increasing support throughout the United States. All students seeking licensure by the Commonwealth of Massachusetts must have an undergraduate liberal arts/science major. Students not having an undergraduate liberal arts/science major must complete the necessary work to achieve equivalency. Education licensure programs described in the 2023-2024 catalog may be subject to revision based on any Massachusetts Department of Elementary and Secondary Education directives.

# Liberal Arts Major – Early Childhood, Elementary Education, Teacher of Students with Moderate Disabilities (TSMD)

Students who seek general licensure in Early Childhood and Elementary Education, and/or Teacher of Students with Moderate Disabilities (Pre K–8 and 5–12) must successfully complete the Liberal Arts major outlined in each set of degree requirements. Students must follow the designated Liberal Arts major.

# Second Major - Subject Area Licensure - Secondary Education

The following majors qualify for students who wish to gain subject area licensure for the secondary (8–12) level:

- Biology
- Chemistry
- Mathematics
- Physics

The following major qualifies for students who wish to gain subject area licensure for the secondary (5-12) level:

### History

### **GENERAL DEGREE REQUIREMENTS**

- Admission into Teacher Education program for those seeking to teach
- Fulfill all General Education Requirements see below
- Earn a minimum 123 Graduation Credits
- Pass Program Portfolio Assessment
- Meet minimum Cumulative GPA of 2.75
- Senior exit portfolio and oral interview for students seeking initial licensure

## GENERAL EDUCATION REQUIREMENTS - 44.5 credits required

See page 11 for course options.

Cultural Perspectives Requirements, 32 credits

PE101/PE102 Theory of Wellness, 2 credits

Required: PE222 First Aid and CPR, 0.5 credits

Lab Science and Math or Science, 7 credits (PS251 meets the math requirement for Secondary Majors)

Social Science, required PS342 Child Development or PS343 Adolescent

Development, 3 credits

# Education Core (all required), minimum grade C-, 21 credits

ED210 Philosophical and Sociological Foundations of Education	3
ED243 Educational Technology	3
ED310 Educational Psychology	3
ED320 Classroom Management	3
ES320 ELL Curriculum and Methods	3
SN311 Human Exceptionalities	3
SN420 Psychological and Educational Assessment of the SN Child	3

# Liberal Arts Requirements for Early Childhood Education,

Elementary Education, and Teacher of Students with Moderate Disabilities (TSMD) (additional lab science and math/science courses),

## minimum grade C-, 7 credits

Lab Science (choose one), minimum credits 4

(choose any BI, CH, EV, or PY course with a lab above the 100 level)

Math (choose one (typically MA101)), minimum credits 3

(choose any MA course above the 100 level)

# Liberal Arts Requirements (all required), minimum grade C-, 15 credits

GO210 American Political Institutions	3
GO220 World Political Geography	3
HI150 American Experience	2
BA231 Principles of Microeconomics <b>OR</b>	2
BA232 Principles of Macroeconomics	2
An American Literature course	2

Liberal Arts Subject, minimum grade C- MA105 Mathematics for Elementary Teachers MA111, MA109, or MA122 1 Lab Science 1 English or 1 History Course Education Cognate: CO210 Introduction to Applied Linguistics	3 3 4 3 3
EARLY CHILDHOOD EDUCATION INITIAL LICENSE	
PRE-K TO GRADE 2 (BA) REQUIREMENTS  In order for a student to obtain teacher licensure in Early Childhood Education, to student must successfully complete the following requirements:  • Fulfill all General Degree Requirements – see above  • Fulfill all Liberal Arts Degree Requirements – see above  • Fulfill all Education Core Requirements – see above  • Fulfill all Early Childhood Education Major Requirements – see below	he
Early Childhood Initial (all required), minimum grade C-, 9 credits EC325 Early Childhood Curriculum and Methods I EC330 Early Childhood Curriculum and Methods II RE441 Teaching Reading and Children's Literature	3 3
Early Childhood Practicum (Initial), minimum grade C-, 15 credits EC499 Practicum: Preschool/Kindergarten (100 hrs) EC499 Practicum: Grades 1–2 (200 hrs) ED499z Student Teacher Seminar	6 6 3
<ul> <li>ELEMENTARY EDUCATION INITIAL LICENSE GRADES 1–6 (BA) REQUIREMENTARY EDUCATION INITIAL LICENSE GRADES 1–6 (BA) REQUIREMENTARY In order for a student to obtain teacher licensure in Elementary Education, the student must successfully complete the following requirements:</li> <li>Fulfill all General Degree Requirements – see above</li> <li>Fulfill all Liberal Arts Degree Requirements – see above</li> <li>Fulfill all Education Core Requirements – see above</li> <li>Fulfill all Elementary Education Major Requirements – see below</li> </ul>	VTS
Elementary Education Initial (all required), minimum grade C-, 9 credits EL325 Elementary Curriculum and Methods I EL330 Elementary Curriculum and Methods II RE441 Teaching of Reading and Children's Literature	3 3 3
Elementary Education Practicum (Initial), minimum grade C-, 15 credits EL499 Practicum: Elementary Education ED499z Student Teaching Seminar	12
SECONDARY EDUCATION INITIAL LICENSE (BA) REQUIREMENTS  In order for a student to obtain teacher licensure in Secondary Education (8-12)	

<ul> <li>Fulfill all General Degree Requirements – see above</li> <li>Fulfill all General Education Requirements – see page 11, 44.5 credits</li> <li>Required Education Cognate: CO210 Introduction to Applied Linguistics</li> <li>Fulfill all Education Core Requirements – see above</li> <li>Fulfill all requirements in second subject area major – see program major for requirements</li> <li>Fulfill all Secondary Education Major Requirements – see below</li> </ul>	s:
Secondary Education Initial (all required), minimum grade C-, 6 credits RE462 Reading in the Content Area SE420 General Curriculum and Methods of Secondary Education	3
Secondary Education Practicum (Initial), minimum grade C-, 15 credits SE499 Practicum: Secondary Education ED499z Student Teaching Seminar	12
TEACHER OF STUDENTS WITH MODERATE DISABILITIES (TSMD) INITIAL LICENSE PRE K-8/GRADES 5-12 (BA) REQUIREMENTS	
<ul> <li>In order for a student to obtain teacher licensure in Secondary Special Needs, the student must successfully complete the following requirements:</li> <li>Fulfill all General Degree Requirements – see above</li> <li>Fulfill all Education Core Requirements – see above</li> <li>Fulfill all Liberal Arts Degree Requirements – see above</li> <li>Fulfill all Special Needs Education Major Requirements – see below</li> </ul>	e
TSMD Pre K/GR12 Education Initial (all required), minimum grade C-, 9 cre	edits
RE441 Teaching of Reading and Children's Literature SN325 Special Needs Curriculum and Methods I SN330 Curriculum and Methods Elementary Special Needs II <b>OR</b> SN335 Curriculum and Methods Secondary Special Needs II	3 3
Special Needs Practicum (Initial), minimum grade C-, 15 credits	
SN499 Practicum Special Education ED499z Student Teaching Seminar	12 3
EARLY CHILDHOOD EDUCATION (AA) REQUIREMENTS	
Required General Education Courses, 32.5 credits  CP100 Critical Writing CP105 First Year Foundations CP150 Christian Tradition CP195 The West in the World since 1500 CP235 Arts and Music CP245 Literature and Culture CP250 The Bible in Current Perspective	3 2 3 3 3 3 3

CP290 East Meets West: Western Philosophy and Globalization	3
PE101/PE102 Physical Education Activity	2
PE222 First Aid and CPR	.5
Lab Science	4
Math or Science	3
Required Social Science, 9 credits	
PS110 Introduction to Psychology	3
PS240 Lifespan Development	3
PS342 Child Development	3
Required Education Courses, minimum grade C-, 18 credits	
EC325 Early Childhood Curriculum and Methods I	3
EC330 Early Childhood Curriculum and Methods II	3
ED210 Philosophical and Sociological Foundations of Education	3
ED243 Educational Technology	3
ED310 Educational Psychology	3
RE441 Teaching Reading and Children's Literature	3
Practicum, minimum grade C-, 12 credits	
EC399 Preschool/Kindergarten Associate Degree practicum	12

### ADMISSION TO TEACHER EDUCATION PROGRAM

Students planning to teach should formally apply for admission to the Teacher Education Program no later than the spring semester of their sophomore year. Admission to the program is necessary if the student is to proceed in the professional sequence of upper division education courses. A student must maintain good standing (2.75 GPA) in the Teacher Education Program in order to continue in the teacher preparation program. Applications are acted upon by the Teacher Education Faculty Committee, which is composed of faculty in the Division of Teacher Education. Careful consideration is given to the student's professional interest, personality, emotional stability, character, scholarship, competence in communication, and physical health. The following requirements must be met prior to admission:

- 1. A quality point average of 2.75 or better.
- 2. Satisfactory recommendations from faculty and members of the committee.
- Satisfactory completion of ED210 Foundations of Education, PS342 Child Development or PS343 Adolescent Development, and ED310 Educational Psychology.
- 4. Pass the Massachusetts Communication and Literacy Skills Exam (earn a score of P on each component).
- 5. Application to and completion of the testing requirement (see #4) to be admitted to the Teacher Education Program. Information is available in the Education Office.
- 6. Setting up a MEPID account in the ELAR System through the Massachusetts Department of Elementary and Secondary Education.
- 7. Approval of teacher education faculty.

Note: Admission to the Teacher Education Program is only part of a continuous process of selection and retention of the future teacher.

### ADMISSION TO STUDENT TEACHING PRACTICUM

Application for the student teaching practicum must be made through the Education Office three months in advance of the desired time for student teaching. Only seniors who have completed the professional sequence satisfactorily and have maintained good standing in the Teacher Education Program will be considered for student teaching. Applications are acted on by the teacher education faculty.

Prerequisites for admission to student teaching are as follows:

- 1. Admission to and in good standing (2.75 GPA) in the Teacher Education Program.
- 2. Completion of the professional sequence.
- Satisfactory completion of the required courses for each selected major in teacher education.
- 4. Successful completion of the following MTELs: Communication and Literary Skills and all applicable Content MTELs before being placed in the Practicum.
- 5. Approval of teacher education faculty regarding professional aptitude.
- 6. Endorsement of major departments.

Additional course work may be required, depending on the needs of the individual student. Students meet with advisors to determine the appropriate required student teaching experience. Student teaching cannot be provided to those who have not followed an established program for the preparation of teachers. Students will observe teachers and pupils at work. The actual participation in teacher activities with conferences and reports is emphasized. This practice teaching is done under supervision in public schools in Quincy, on the South Shore, and in the greater Boston area.

A weekly seminar is required for all those who are registered for their first student teaching practicum. This seminar will address the issues that arise out of the practicum experience. Resource persons will be used to address specific topics.

## TEACHER PLACEMENT

The Office of Career Services and Professional Development is maintained by the college to assist graduates in securing positions for which they are best suited and qualified.

The Office of Career Services and Professional Development and the Division of Teacher Education post notices of teacher position vacancies and make the information available to qualified candidates. This service is available to registered alumni/ae.

### CAMPUS KINDER HAUS

Campus Kinder Haus (CKH) is an early childhood center operated by Eastern Nazarene College. This laboratory preschool center is geared for children ages 2 years 9 months through Kindergarten. The preschool serves families in the South Shore and Boston areas and the college community.

For College students, CKH provides a place where they can have the opportunity to experience the complexities and rewards of working with young children. The center offers opportunities to connect coursework to real-life experiences.

For the child, the center offers a child-centered, developmentally appropriate program designed to promote the whole child's growth. CKH allows the children to explore and develop physically, emotionally, socially, intellectually, and spiritually.

The teachers and students seek to work closely with the families in the program and welcome parent participation. Families are our partners in the education process. Together, we can guide each child towards a life filled with a love of learning and joy, and peace as they enjoy healthy relationships with others.

### EDUCATION COURSE DESCRIPTIONS

EC325 Early Childhood Curriculum and Methodology I (3 cr.) An overview of philosophy, approaches to teaching young children, technology, special needs, classroom management and practical materials designed for the developmental curriculum in the following areas: sensory experiences, language arts and the humanities (including social studies and the expressive arts). There are 25 pre-practicum clock hours to complete for this course. *Prerequisite: Junior or Senior in good standing in Teacher Education Program.* 

EC330 Early Childhood Curriculum and Methodology II (3 cr.) Examines effective methods of curriculum implementation, considering cultural and special needs, combined with developmental learning and ways to prepare a supportive physical environment. This course will feature the following areas of curriculum: the natural sciences (including science, health and mathematics), motor development and parent and community involvement. The student will design an integrated curriculum unit and resource kit. There are 25 pre-practicum clock hours to complete for this course. *Prerequisite: Junior or Senior and in good standing in Teacher Education Program.* 

**EC399 Preschool–Kindergarten Associate Degree Practicum (6 cr.)** Observing, assisting, and teaching within a preschool setting under the direction of a supervising practitioner and supervised by a college supervisor. This practicum is required of all early childhood Associate Degree majors for licensure (Office for Children). The classroom will include regular students as well as special needs students.

**EC499k Preschool/Kindergarten Practicums (6 cr. each)** Observing, assisting, and teaching within a preschool setting under the direction of a supervising practitioner and supervised by a college supervisor. This practicum is required of all early childhood majors for licensure. The classroom will include regular students as well as special needs students. *Prerequisites: ED210, ED310, RE441, SN420, SN311, ED243, EC325, EC330, a cumulative GPA of 2.75, approval of Teacher Education Faculty, pass all appropriate MTEL tests.* 

**EC499e Grades 1–2 Practicum (6 cr.)** Observing, assisting, and teaching within a first through second grade setting under the direction of a supervising practitioner and supervised by a college supervisor. This practicum is required of all early childhood majors for licensure. The classroom will include regular students as well as special needs students. *Prerequisites: ED210, ED310, RE441, SN311, SN420, ED243, ED320, EC325, EC330, a cumulative GPA of 2.75, approval of Teacher Education Faculty, pass all appropriate MTEL tests.* 

**ED210 Foundations of Education (3 cr.)** An introductory course offering insights into historical, sociological, psychological, philosophical and methodological foundations at all levels of education. Opportunity is provided for students to explore the field of education and to provide guidance to those choosing teaching as a vocation.

**ED243 Educational Technology (3 cr.)** Includes an overview of the applications of the technology in the classroom. Students will review, evaluate, and produce educational software including videos, slide presentations, transparencies and photo essays for use in small group, class, and individual instruction. Emphasis will be placed on integrating instructional software, including compact disks, word processing, and multimedia computer programs into the curriculum. There is also a study of innovative programs using technology, such as distance learning and telecommunications, in the classroom. *Prerequisites: ED210 and ED310.* 

**ED310 Education Psychology and Measurement (3 cr.)** A review of human development in a psychological context, followed by a concentration on learning theories and evaluation

strategies. The aim is to help each student to arrive at a consistent systematic position in applying psychology to the educational setting. There are 25 pre-practicum clock hours to complete this course. *Prerequisite: ED210.* 

**ED320 Classroom Management (3 cr.)** Directed toward approaches that the teacher should be knowledgeable about and able to use in a classroom setting. A major emphasis will be directed toward behavior modification and other methods which should be appropriate in a self-contained and regular education classroom and instructional settings. Emphasis will be placed on the inclusion of all students within the classroom to enhance individual self. There are 25 pre-practicum clock hours to complete this course. *Prerequisites: SN311, Junior or Senior in good standing in Teacher Education Program.* 

**ED462** Reading in Content Area (3 cr.) Designed to develop skills that will enable the teacher to facilitate the student's reading of content area material. Significant research will be reviewed and projects developed to provide the future teacher with practical applications of the findings. Attention will be given to all areas of the curriculum to be correlated with reading instruction. This course is required for middle school and secondary education. There are 25 pre-practicum hours to complete for this course. *Prerequisite: Junior or Senior in good standing in Teacher Education Program. Cross-listed as RE462.* 

**ED495** Independent Research in Education (cr. var) Individual research under the guidance of faculty on special interests, concerns, problems, remediations, or questions. Assigned and suggested readings will be required; field experience(s) may be required; frequent conferences will be conducted. *Prerequisite: Permission of instructor.* 

ED499Z Student Teaching Seminar (3 cr.) A three-credit seminar for student teachers who have not had any previous teaching experience. It is designed as a supportive component of the student teaching experience. The following is a list of possible topics to be covered: licensure application process, credential files, discipline, classroom management, interviewing, and relationships with supervising practitioners. The structure of the course also allows for student generated topics for discussion. One credit of the course (15 hours) will address the Data Analysis competency that is part of the new Professional Standards for Teachers (PSTs). This will be designed to provide students with the essential knowledge of descriptive and inferential statistics in the field of education. It prepares students to be knowledgeable consumers of social research statistics and to do further work in statistics and research. This one credit component is designed to provide a Lab experience for students where they will develop their skills for data interpretation, particularly as it is applied to work in K-12 schools and is required for all Education majors. This course is taken in conjunction with the student teaching practicum and is required to be considered a program completer. Prerequisite: Passing scores on required exams for the Massachusetts Test for Educator Licensure (MTEL).

**EL325 Elementary Curriculum and Methods I (3 cr.)** Designed to address elementary teaching methodology and competencies in the instructional areas of language arts and social studies in coordination with the Massachusetts Curriculum Frameworks. Emphasis will be on teaching and assessment, including instructional strategies, teaching and learning styles, curriculum design, planning, and implementation of concepts, within the inclusionary model. Students are required to complete 25 pre-practicum hours in an elementary setting to observe and teach language arts and social studies curriculum. *Prerequisite: Junior or Senior in good standing in Teaching Education Program.* 

**EL330 Elementary Curriculum and Methods II (3 cr.)** Designed to provide students with an overview of instructional curriculum and methodologies in elementary science/ technology and mathematics. Focus will be on curriculum, instruction, and assessment in a differentiated classroom. The use of instructional materials and the importance of hands-on instruction and scientific inquiry will be highlighted. Students will be expected to complete 25 prepracticum hours in an elementary setting to observe and teach science and math curriculum. *Prerequisite: Junior or Senior in good standing in Teacher Education Program.* 

**EL499 Practicum in Elementary Education (12 cr.)** Observing, assisting, and teaching within an elementary school setting under the direction of a supervising practitioner and supervised by a college supervisor. This practicum is required of all elementary education majors for licensure. The classroom will include regular students as well as special needs students. *Prerequisites: ED210, ED310, RE441, SN311, SN420, ED243, ED320, EL325, EL330, a cumulative GPA of 2.75, approval of Teacher Education Faculty, pass all appropriate MTEL tests.* 

**ES320 ELL Curriculum and Methods (3 cr.)** This course will examine a number of topics that address the learning needs of ELL students. Theoretical issues from various disciplines will be considered as they impact the practical needs and concerns of students and teachers in the authentic settings in which ELL instruction takes place (second language acquisition and the world of English Language Learners). A variety of methods, especially Sheltered Instruction (SEI), will be studied and analyzed in order that prospective teachers will be able to develop concrete strategies of instruction. The course targets the teaching of ELL in elementary school, middle school and high school. There is a 25 hour pre-practicum requirement for this course. *Prerequisite: Junior or Senior in good standing in Teacher Education Program.* 

**RE441 The Teaching of Reading and Children's Literature (3 cr.)** Designed to assist the preservice and elementary teacher in developing a solid instructional philosophy as it relates to the teaching of reading, and to examine research-based, balanced literacy practices. Emphasis will be placed on designing literacy-rich classroom environments which support reading instruction in relation to the Massachusetts English Language Curriculum Frameworks. Current methodology, practical techniques of teaching reading, the integration of writing strategies, as well as current assessment practices will be discussed. There is a 25 hour pre-practicum requirement for this course. *Prerequisite: Junior or Senior in good standing in Teacher Education Program.* 

**RE462 Reading in the Content Area (3 cr.)** Designed to develop skills that will enable the teacher to facilitate the student's reading of content area material. Significant research will be reviewed and projects developed to provide the future teacher with practical applications of the findings. Attention will be given to all areas of the curriculum to be correlated with reading instruction. This course is required for middle school and secondary education. There are 25 pre-practicum hours to complete for this course. *Prerequisite: Junior or Senior and in good standing in Teacher Education Program.*Cross-listed with ED462.

**SE420 General Curriculum and Methods of Secondary Education (3 cr.)** Emphasizes various plans and methods for the motivation and direction of learning in the secondary school. Opportunity is given to study and apply the particular major content to the classroom. There are 25 pre-practicum hours to complete for this course. *Prerequisite: Junior or Senior in good standing in Teacher Education Program.* 

**SE499 Practicum in Secondary Education (12 cr.)** Observing, assisting and teaching within a secondary school setting under the direction of a supervising practitioner and supervised by a college supervisor. This practicum is required of all secondary education majors for licensure. The classroom will include regular students as well as special needs students. *Prerequisites: ED210, ED310, SN311, ED243, ED320, RE462, SE420, SN420, a cumulative GPA of 2.75, approval of Teacher Education Faculty, pass all appropriate MTEL tests.* 

**SN311 Human Exceptionalities (3 cr.)** An introductory course in special needs, which is designed to provide a basis for further study in the area. Students will develop competencies in the following: (1) psychological characteristics of children with special needs, (2) behavioral characteristics of children with special needs, (3) techniques used to diagnose and remediate special needs, and (4) current special needs legislation (state and national). There are 25 pre-practicum hours to complete for this course. *Prerequisites: ED210, ED310, Junior standing.* 

**SN325 Special Education Curriculum and Methods I (3 cr.)** This course will focus on various methodologies in teaching all types of special needs students. The content for language arts, the humanities, social studies, and the arts are explored, with an emphasis on matching the teaching style of the teacher to the learning styles of the student. An emphasis on both corrective and functional techniques will be included, as well as the development of appropriate materials. There are 25 pre-practicum hours to complete for the course. *Prerequisites: SN311 and Junior or Senior in good standing in Teacher Education Program.* 

**SN330 Curriculum and Methods Elementary Special Needs II (3 cr.)** This course will focus on various methodologies in teaching all types of special needs students in the natural sciences (including mathematics, science and health) in the elementary setting. Emphasis will include remediation techniques that can be varied to meet differing teaming styles using a variety of teaching styles. Techniques of evaluation, teaching and instructional materials with diverse populations will be included. There are 25 pre-practicum hours to complete for the course. *Prerequisites: SN311 and Junior or Senior in good standing in Teacher Education Program.* 

**SN335 Curriculum and Methods Secondary Special Needs II (3 cr.)** This course will focus on various methodologies in teaching all types of special needs students in the natural sciences (including mathematics, science and health) in the secondary setting. Emphasis will include techniques that can be varied to meet differing learning styles and application of knowledge to real life situations in becoming a positive functioning member of society. Techniques of evaluation, teaching and instructional materials with diverse populations will be included. There are 25 pre-practicum hours to complete the course. *Prerequisites: SN311 and Junior or Senior in good standing in Teacher Education Program.* 

**SN420 Psychological and Educational Assessment (3 cr.)** Students will be introduced to a variety of educational assessment techniques ranging from traditional classroom assessment tools and standardized tests, to more contemporary performance based assessment approaches. Attention will be given to the practical assessment versus theoretical treatment of evaluation. This will challenge students to consider whether assessment is valuable and how assessment and teaching go together. Students will be given the opportunity to evaluate and administer formal assessment tools, design and administer informal and alternative assessment tools, evaluate selected test materials and protocols, and determine how the classroom teacher can use all of this information in designing their teaching lessons and materials. Students will determine how the classroom teacher can use all the information in designing lessons that reach the students learning style and level of achievement. There are 25 pre-practicum hours to complete the course.

\*Prerequisites: SN311 and Junior or Senior in good standing in Teacher Education Program.

SN499e Practicum Teacher of Students with Moderate Disabilities (Pre K–8) (12 cr.) The student will spend at least 12 weeks (300 clock hours) in an inclusive general education setting or 75 hours in an inclusive general education setting and 225 hours in a separate or substantially separate setting for students with moderate disabilities. Local school districts cooperate by providing experiences in resource rooms and other special facilities. The student is expected to demonstrate competence as a teacher of students identified as having moderate disabilities. Supervision will be provided by the supervising practitioner, the college supervisor, and school district administrators. Prerequisites: ED210, ED310, SN311, ED243, ED320, SN325, SN335, RE441, SN420, a cumulative GPA of 2.75, and approval of Teacher Education Faculty, pass all appropriate MTEL tests.

**SN499s Practicum Teacher of Students with Moderate Disabilities (5–12) (12 cr.)** The student will spend at least 12 weeks (300 clock hours) in an inclusive general education setting or 150 hours in an inclusive general education setting and 150 hours in a separate or substantially separate setting for students with moderate disabilities. Local school districts cooperate by providing experiences in resource rooms and other special facilities. The student is expected to demonstrate competence as a teacher of students identified

as having moderate special needs. Supervision will be provided by the supervising practitioner, the college supervisor, and school district administrators. *Prerequisites: ED210, ED310, SN311, ED243, ED320, SN325, SN330 or SN335, RE441, SN420, a cumulative GPA of 2.75, approval of Teacher Education Faculty, pass all appropriate MTEL tests.* 

# **Engineering**

Division of Science & Technology

Dr. John Free, Professor Emeritus

Dr. Jill Macko, Associate Professor

Dr. Salah Badjou, Associate Professor

Izirlei Guimaraes Filho, Senior Adjunct

### MISSION:

The mission of the Engineering and Technology Program is to commit to teaching excellence, innovative undergraduate research and the personal and intellectual growth of our students in a diverse and collaborative Christian academic community. We endeavor to provide our students with the tools and resources required to be successful Christian scientists and engineers well prepared to pursue graduate studies and to fit the evolving challenges of the global corporate world.

### GOALS:

- To prepare our students for professional employment and/or graduate studies in physics or engineering.
- 2. To develop worldly citizens that can project to their environments, a healthy mix of our core beliefs that "the best in education can meaningfully coexist with the best in Christian faith."
- 3. To prepare students to seamlessly apply their comprehensive preparation in general education to problems in the engineering disciplines.
- 4. To prepare students to use their comprehensive preparation in general education to develop and enhance their intellectual and artistic curiosity.
- 5. To prepare students to use their general and technical preparation towards demonstrating their writing, speaking and reading proficiency.
- 6. To prepare students to use their general education and technical preparation to live their lives as scientists and engineers inspired and guided by their Christian faith.
- 7. To prepare students to use their general education and technical preparation to develop awareness and sensitivity to cultural diversity.

# DEGREES, MAJORS AND TRACKS OFFERED

**Bachelor of Science:** Electrical Engineering; Computer Engineering; General Engineering; Electrical Engineering Technology; Environmental Engineering Technology

**Bachelor of Arts:** Engineering Studies

Minor: Engineering

## **GENERAL DEGREE REQUIREMENTS**

Fulfill all General Education Requirements – see below

• Earn minimum of 123 Graduation Credits	
<ul> <li>Pass Program Portfolio Assessment</li> </ul>	
<ul> <li>Meet minimum Cumulative GPA of 2.0</li> </ul>	
GENERAL EDUCATION REQUIREMENTS – 46 credits require	d
See page 11 for course options.	
Cultural Perspectives Requirements, 32 credits	
Physical Education Skills, 2 credits	
Lab Science required: PY201/PY201L General Physics I, 5 credit	iS
Math required: MA151 Calculus I, 4 credits Social Science, 3 credits	
Engineering (BS) Core, 48 credits	
Systems/General Engineering Sequence (all required),	
minimum grade C-, 13 credits	4
EG161/EG161L Introduction to Robotics w/Lab EG325 Introduction to Engineering Design	3
EG451-A Senior Design Project	3
EG451-B Senior Design Presentation	3
Analog Sequence (all required), minimum grade C-, 15 cred	
EG272/EG272L Circuit Theory I w/Lab	4
EG273/EG273L Circuit Theory II w/Lab	4
EG321/EG321L Electronics w/Lab	4
EG332L Applied Electric Circuits	3
Digital Sequence (all required), minimum grade C-, 11 cred	lits
EG232/EG232L Digital Logic w/Lab	4
EG351/EG351L Microcomputer Interfacing w/Lab	4
EG432 Embedded Systems	3
Programming Sequence (all required), minimum grade C-,	
CS131 Computer Programming I CS132 Computer Programming II	3
EG452 Applied Programming	3 3
	3
Engineering Technology (BS) Core, 38 credits	
General Engineering Sequence (all required), minimum gra EG161/EG161L Introduction to Robotics w/Lab	,
EG232/EG232L Digital Logic w/Lab	4
EG272/EG272L Circuit Theory I w/Lab	4
EG325 Introduction to Engineering Design	3
EG451-A Senior Design Project	3
EG451-B Senior Design Presentation	3
Engineering Technology Cognates (all required), minimum g	rade C-, 17 credits
CS121 Introduction to Computer and Information Science	3
CS131 Computer Programming I	3

MA111 College Algebra MA122 Trigonometry PY202/PY202L General Physics II w/Lab	3 3 5
<ul> <li>COMPUTER ENGINEERING (BS) REQUIREMENTS</li> <li>Fulfill all General Degree Requirements – see previous</li> <li>Fulfill all General Education Requirements – see page 11, 46 credits</li> <li>Fulfill all Engineering Core Requirements – see above, 48 credits</li> <li>Fulfill all Computer Engineering Major Requirements – see below</li> </ul>	
Computer Engineering (BS) Additional Requirements, minimum gr 6 credits	rade C-,
CS221N Data Structures & Algorithms CS310 Data Telecommunications and Networks	3 3
Computer Engineering (BS) Cognates, minimum grade C-, 15 credit MA152 Calculus II	,
MA171 Introduction to Discrete Math	4 3
MA252 Probability and Statistics	3
PY202/PY202L General Physics II w/Lab	5
Computer Engineering (BS) Recommended Elective MA201 Linear Algebra	4
<ul> <li>ELECTRICAL ENGINEERING (BS) REQUIREMENTS</li> <li>Fulfill all General Degree Requirements – see previous</li> <li>Fulfill all General Education Requirements – see page 11, 46 credits</li> <li>Fulfill all Engineering Core Requirements, – see above, 48 credits</li> <li>Fulfill all Electrical Engineering Major Requirements – see below</li> </ul>	
Electrical Engineering (BS) Additional Requirements, minimum gr	ade C-,
11 credits	2
EG401 Signals and Systems PY312/PY312L Classical Mechanics w/Lab	$\frac{3}{4}$
PY322/PY322L Electricity and Magnetism w/Lab	4
Electrical Engineering (BS) Cognates, minimum grade C-, 19 credi	ts
MA152 Calculus II	4
MA211 Calculus III	3
MA212 Differential Equations PY202/PY202L General Physics II w/Lab	3 5
PY302/PY302L Modern Physics w/Lab	4
Electrical Engineering (BS) Recommended Electives	
PY472 Electromagnetic Theory	3
MA201 Linear Algebra	4
ELECTRICAL ENGINEERING TECHNOLOGY (BS) REQUIREMENTS     Fulfill all General Degree Requirements – see previous	

<ul> <li>Fulfill all General Education Requirements – see page 11, 46 credits</li> <li>Fulfill all Engineering Technology Core Requirements – see above, 38 credits</li> <li>Fulfill all Electrical Engineering Technology Major Requirements – see below</li> </ul>	
Electrical Engineering Technology (BS) Additional Requirements, minimum grade C-, 18 credits  EG273/EG273L Circuit Theory II w/Lab  EG321/EG321L Electronics w/Lab  EG332L Applied Electric Circuits  EG351/EG351L Microcomputer Interfacing w/Lab  EG452 Applied Programming	4 4 3 4 3
Electrical Engineering Technology (BS) Elective, minimum grade C-, 3 cred Students may choose 3 credits in any additional EG course 200-level or above.	lits
Electrical Engineering Technology (BS) Cognates, minimum grade C-, 7 credi MA152 Calculus II CS132 Computer Programming II	its 4 3
<ul> <li>ENVIRONMENTAL ENGINEERING TECHNOLOGY (BS) REQUIREMENTS</li> <li>Fulfill all General Degree Requirements – see previous</li> <li>Fulfill all General Education Requirements – see page 11, 46 credits</li> <li>Fulfill all Engineering Technology Core Requirements – see above, 38 credits</li> <li>Fulfill all Environmental Engineering Technology Major Requirements – see below</li> </ul>	W
Environmental Engineering Technology (BS) Additional Requirements, minimum grade C-, minimum 15 credits  BI104/BI1104L Introduction to Ecology and Diversity w/Lab  EV201/EV201L Environmental Science w/Lab  EV310 Environmental Ethics and Policy	4 4 3
Choose one of the following: BI343/BI343L Field Problems in Ecology <b>OR</b> BI480/BI480L Conservation Biology w/Lab	4 6
Environmental Engineering Technology (BS) Electives, minimum grade C-, 6 credits  Students may choose 6 credits in any additional EG courses 200-level or above.	
Environmental Engineering Technology (BS) Cognates, minimum grade C-, 10 credits  MA118 Intro to Statistics CH102/CH102L Chemistry of Life w/Lab CS132 Computer Programming II	3 4 3
<ul> <li>ENGINEERING STUDIES (BA) REQUIREMENTS</li> <li>Fulfill all General Degree Requirements – see above</li> <li>Fulfill all General Education Requirements – see page 11, 46 credits</li> <li>Fulfill all Engineering Studies Major Requirements – see below</li> </ul>	

# Engineering Studies (BA) Core, minimum grade C-, 24 credits

CS131 Computer Programming I	3
EG161/EG161L Introduction to Robotics w/Lab	4
EG232/EG232L Digital Logic w/Lab	4
EG272/EG272L Circuit Theory w/Lab	4
EG325 Introduction to Engineering Design	3
EG451-A Senior Design Project	3
EG451-B Senior Design Presentation	3
Engineering Elective (choose two), minimum grade C-, minimum 6 credits	
CS132 Computer Programming II	3
EG321/EG321L Electronics w/Lab	4

# **GENERAL ENGINEERING (BS)**

The General Engineering degree is intended for those specializing in an engineering track other than Electrical Engineering, Computer Engineering, Environmental Engineering Technology, Electrical Engineering Technology or Engineering Studies. A course of study will be designed for the student in consultation with the student's advisor after the Fall Semester of the Sophomore year. In addition to courses within the major, all General Engineering students must complete the General Education requirements and General Degree requirements.

## ENGINEERING MINOR, minimum grade C-, 15 credits

EG351/EG351L Microcomputer Interfacing w/Lab

Students may choose 15 credits in any courses with an EG prefix.

### ENGINEERING COURSE DESCRIPTIONS

EG161 Introduction to Robotics (3 cr.) This course introduces our students to the field of Engineering. The students will design and build a LEGO computer controlled robot. Topics include electronic instrumentation, elementary work with circuits, computer interfacing, and computer programming. An engineer is called upon to solve practical problems. In order to accomplish this task, an engineer needs to piece together various components developed by other engineers as well as acquire knowledge from other engineers. By combining the power of the LEGO building system with the LEGO MINDSTORMS Education technology, teams of students can design, build, program, and test robots. Working together on guided and open-ended engineering projects, the team members can develop creativity and problem-solving skills along with other important Scientific, Technological, Engineering and Mathematics (STEM) knowledge. Students also become more skilled in communication, organization and research, all helping to prepare them for future success in higher levels of schooling and in the workplace. The students will also have an opportunity to "Design their own Process of Becoming a World-Class Engineering Student". "Design Your Process (DYP)" is a powerful student-centered approach for bringing about change in students' attitudes and behaviors and turning the task of figuring out the path to success over to the individual. Co-requisite: EG161L.

**EG161L Introduction to Robotics Lab (1 cr.)** This lab introduces our students to the field of Engineering. The student designs and builds a LEGO computer controlled robot. Topics include electronic instrumentation, elementary work with circuits, electronics, digital logic, basic programming and computer architecture. An engineer is called upon to solve practical problems. In order to accomplish this, an engineer needs to piece together various components developed by other engineers as well as acquire knowledge from

other engineers. By combining the power of the LEGO building system with the LEGO MINDSTORMS Education technology, teams of students can design, build, program, and test robots. Working together on guided and open-ended engineering projects, the team members can develop creativity and problem-solving skills along with other important mathematics and science knowledge. Students also become more skilled in communication, organization and research, all helping to prepare them for future success in higher levels of schooling and for the workplace. The ultimate prize is the students' robotics design competition. *Co-requisite: EG161*.

**EG232 Digital Logic (3 cr.)** This course provides an introduction to the Hardware building blocks used in Digital computers. The course will cover basic gates, Boolean Algebra, Multiplexers, Arithmetic functions, Combinational and sequential circuit synthesis, as well as Flip/Flops, Counters, Busses and Registers. Different Digital Logic design techniques will be covered. The course ends with the design of one of the most fundamental building blocks of all computers: the Arithmetic Logic Unit (ALU). *Co-requisite: EG232L*.

**EG232L Digital Logic Lab (1 cr.)** This lab provides an introduction to the practical Hardware building blocks used in Digital computers. The lab will cover the implementation of Multiplexers, Arithmetic functions, as well as combinational and sequential circuits. The course ends with the design and implementation of one of the most fundamental building blocks of all computers: the Arithmetic Logic Unit (ALU). *Co-requisite: EG232.* 

**EG272 Circuit Theory I (3 cr.)** This course will provide a basic introduction to circuit theory. We will study basic electrical concepts; network theorems; circuit laws; resistance, op-amps, capacitance, inductance, response of first order (RC and RL) circuits to initial conditions and step forcing functions. *Pre-requisite: PY202, MA212. Co-requisite: EG272L.* 

**EG272L Circuit Theory I Lab (1 cr.)** This course will provide a basic introduction to practical circuit theory. We will examine fundamental circuit elements such as Resistors, Inductors, Capacitors and OpAmps. We will examine the behavior of these components in different circuit configurations. We will estimate the performance of various circuits configuration using background from circuit analysis techniques learned in EG272. We will use the Simulation Program with Integrated Circuit Emphasis (SPICE), to examine several circuit configurations and to evaluate their performances. *Co-requisite: EG272*.

**EG273 Circuit Theory II (3 cr.)** This course is a continuation of Circuit Theory I. We will study Laplace and Z-transforms and explore circuit analysis using these transforms. We will explore the concepts of frequency domain convolution, Fourier series and transforms, transfer functions, poles and zeros, frequency response, resonance, and the use of Bode plots in the analysis of the asymptotic frequency response of various circuit configurations. We will use Bode plots as a platform for the analysis of linear feedback and control circuitry. We will look at polyphase AC circuits; magnetically-coupled circuits as well as the more open concept of two-port networks. Computer design and simulations are integrated via PSPICE and MATLAB. *Prerequisites: EG272, PY202. Co-requisite: EG273L.* 

**EG273L Circuit Theory II Lab (1 cr.)** This course will expose our students to practical advanced circuit theory. We will examine the resonant behavior of RLC circuits. We will use RLC circuits as a platform for investigating transfer functions concepts via convolution, Fourier Series and Transforms as well as Laplace and Z-Transforms. We will investigate frequency response, resonance, and the use of magnetically coupled circuits in steady state. We will use PSPICE to examine several circuit configurations from EG272 and to evaluate their performances. *Co-requisite: EG273*.

EG321 Electronics (3 cr.) This course will provide a basic introduction to electronics. We will examine fundamental electronic circuit elements such as Diodes, Operational Amplifiers, Metal Oxide Field Effect Transistors (MOSFET), Bipolar Junction Transistors (BJT). We will discuss the use of transistors in real time electronic circuit configurations such as linear feedback and control. Additionally, we will study several techniques that can be used

to analyze and understand some very complicated circuits using basic electronic circuit building blocks. Computer design and simulations are integrated via PSPICE and MATLAB. *Prerequisite: EG272. Co-requisite: EG321L.* 

**EG321L Electronics Lab (1 cr.)** This course will provide an introduction to Analog and Digital Electronic circuit applications. The course will cover Operational amplifier and diode designs and applications, Zener regulators and applications, BJT and MOSFET applications in Integrated Circuit (IC), Input/output impedance and applications to Thevenin and Norton equivalents, frequency characteristics of active filters and applications. *Co-requisite: EG321*.

**EG325** Introduction to Engineering Design (3 cr.) This course provides an introduction to implementing an engineering project using basic principles of systems engineering or a scientific research project working together with faculty and/or in collaboration with research I universities as well as the corporate sector. Students will investigate topics towards the proposal of a research or product development project. Students will develop schedule, objectives and projected outcomes. In the case of an engineering project, system requirements, function allocations, systems cost and schedule will be developed and examined in great details. In the case of a research project, preliminary investigations in line with ongoing research or new contribution in Engineering, Physics or related fields will be used as a platform and basis for conducting on site research with faculty or contributing to research projects in research programs around the United States. *Prerequisite: Junior standing and permission of instructor.* 

**EG332L Applied Electronics Circuits (3 cr.)** This course is a continuation of EG321. The students will learn the practical use of electronic circuit designs. Electronic circuit applications applied to transducer designs will be explored in great detail. Advanced electronic circuit applications such as: operational amplifier design, linear feedback and control, radio and radar communication, signal processing, Analog to Digital Conversion, Schmitt triggers and embedded systems electronics. Power electronics and applications of Very Large Scale Integrated Circuits (VLSI) will be explored. *Prerequisite: EG272, EG273, EG321.* 

**EG351/CS220 Microcomputer Interfacing (3 cr.)** Introduces the field of microcomputers. Topics include microcomputer organization and architecture, Von Neumann versus Harvard architecture, machine and assembly language programming, registers and register transfer logic, assembly instructions and fetching cycle, interrupts, serial and parallel interfacing, D/A and A/D interfaces, user interfaces such as keypad, push buttons and LCD displays, counters and timing of internal clocks using interrupts, interrupt handling and programming, etc. *Prerequisite: EG232 or MA171. Cross-listed with CS220.* 

**EG351L/CS220L Microcomputer Interfacing Lab (1 cr.)** Laboratory experience in assembly, level programming, and debugging, as well as fabrication of microcomputer interfacing circuitry. Projects include human/computer interfacing, A/D conversion and serial communication. *Co-requisite: EG351/CS220.* 

**EG401 Signals and Systems (3 cr.)** This course will cover time and frequency domain analysis of signals and systems. The basic principles of convolutions, linearity, time invariance, causality, and stability of systems will be discussed as the basis for understanding signals and systems. The more advanced concepts of signals representation and modeling will be covered in topics such as: Fourier series and transforms, Laplace and Z-transforms. This course ends with a look at the role of signals and systems in communication, control and linear feedback. *Prerequisite: EG321*.

**EG412L Applied Digital Signals Processing (4 cr.)** This course covers the analysis and processing of discrete-time signals. Topics include digitization of analog signals, sampling theory, the Z transform, digital filter design using both FIR and IIR, as well as spectral analysis using both the DFT and FFT. Differences between deterministic and probabilistic

signal processing are explored in great details. The innovative EMONA TIMS system is used to illustrate the Hardware implementation of basic systems. In addition, extensive use of MatLab is made for practical implementation of the theory covered in lectures. *Prerequisite: EG401.* 

EG432 Embedded Systems (3 cr.) Embedded Systems design will extend and integrate concepts from coursework in digital logic, microcomputers, applied electronics and signals and systems. This embedded system course is centered on implementing a special purpose application using current microcontrollers and their related support hardware and software. This course will use basic principles of systems engineering to develop a special purpose embedded system application, starting with systems requirements, high level block diagram and system function allocations, lower level system functions design and implementation, to systems simulation, integration and prototyping. The lab modules progressively build the expertise required to go through the design cycle. Express-PCB-SCH is used as a platform for implementing system simulation, schematic capture and design layout. Students will have an opportunity to go through the entire system engineering design cycle using this embedded systems design and development platform. *Prerequisites:* EG232/EG232L, EG351/EG351L, and EG332L.

**EG451A Senior Design Project (3 cr.)** The purpose of the Senior Design Project is to provide students with design experience comparable with entry level engineering assignments or research experience comparable to entry level graduate research. The Senior Design projects are largely expected to address challenging engineering problems in a world area. The Senior Design projects will utilize a Systems Engineering approach to Engineering Project Development. The Senior Research projects are largely expected to begin investigations of challenging problems preferably in a world area. The Senior Research projects will utilize scientific method to approach well formulated problems by faculty and corporate. A formal technical report or a research paper in support of a satisfactory presentation to peers and/or faculty must be completed prior to course grade submission. *Prerequisites: Senior standing, EG325.* 

**EG451B Senior Design Presentation (3 cr.)** The purpose of the Senior Design Presentation is to complete the work done on the student's Senior Design Project. Substantial time is allotted for the senior design project or research write-up and for writing a paper publishable to a peer reviewed undergraduate journal. The student will also be preparing for the senior's presentation or thesis defense which is part of the annual Physics & Engineering Seminar Series. *Prerequisite: EG451-A.* 

EG452 Applied Programming (3 cr.) This course will provide an introduction to various high-level languages and interactive environments for numerical computation, visualization, and programming used by engineers and scientists to develop and/ or simulate sophisticated systems. The students will be exposed to a variety of tools, and built-in math functions that will enable them to explore multiple approaches in order to reach a solution faster than with spreadsheets or traditional programming languages, such as C/C++ or Java™. The students will also be taught how to apply these programming environments in a wide range of applications, including signal processing and communications, image and video processing, control systems, test and measurements, computational finance, and computational biology. More than a million engineers and scientists in industry and academia use these programming environments as their primary language for technical computing and prototyping. *Prerequisite: CS132*.

**EG499 Independent Study (1–3 cr.)** Student may undertake a study in an area of interest with approval from the program chair.

# **Environmental Science**

Division of Science & Technology

Dr. Sherryllene Pinnock-Kariuki, Assistant Professor

Dr. Matthew Waterman, Professor

### MISSION:

The mission of the Life Science Program of Eastern Nazarene College is to prepare students for lifelong learning and scientific service in the fields of biology, biochemistry, environmental science, and pre-professional training for dentistry, medicine, nursing, pharmacy, physical therapy, teaching and veterinary medicine. The program also guides students in the scientific endeavor of seeking truth, which is fundamental for all successful scientific inquiry.

### **GOALS:**

- To provide broad based instruction and experience in the foundational knowledge, experimental techniques, primary literature, theoretical and ethical outlooks in Life Science fields including: biochemistry, molecular, cellular, organismal, ecological and environmental biology.
- To encourage an understanding and appreciation of the scientific method as a mode of inquiry including its practice as the "process" underlying the foundational knowledge of the Life Sciences.
- To prepare students for graduate study in science, the health professions, and/or professional employment related to Life Science, such as teaching, technology, public service, and research.

### DEGREES, MAJORS AND TRACKS OFFERED

Bachelor of Science: Environmental Science
Bachelor of Arts: Environmental Studies

Minor: Environmental Science

## GENERAL DEGREE REQUIREMENTS

- Fulfill all General Education Requirements see below
- Earn minimum of 123 Graduation Credits
- Pass Program Portfolio Assessment
- Meet minimum Cumulative GPA of 2.0

### GENERAL EDUCATION REQUIREMENTS – 40 credits required

See page 11 for course options.

Cultural Perspectives Requirements, 32 credits

Physical Education Skills, 2 credits

Math required: MA118 Introduction to Statistics, 3 credits

Social Science, 3 credits

# **ENVIRONMENTAL SCIENCE (BS) REQUIREMENTS**

- Fulfill all General Degree requirements see above
- Fulfill all General Education requirements see page 11, 40 credits

• Fulfill all Environmental Science Major requirements – see below

Environmental Science Core (all required), minimum grade C-, 48 credits	
BI103 Introduction to Cell Biology & Genetics	3
BI104 Introduction to Ecology and Diversity	3
BI104L Introduction to Ecology and Diversity Lab	1
BI105 Introduction to Plants and Animals	3
BI106 Introduction to Research Methods 1 – Discovery	1
BI107 Introduction to Research Methods 2 – Genomics	1
BI343 Field Problems in Ecology	3
BI343L Field Problems in Ecology Lab	2
BI480 Conservation Biology	3
BI480L Conservation Biology Lab	3
CH103 General Chemistry I	3
CH103L General Chemistry I Lab <b>OR</b>	1
CH101 Introduction to Chemistry	3
CH101L Introduction to Chemistry Lab	1
CH104 General Chemistry II	3
CH104L General Chemistry II Lab <b>OR</b>	1
CH102 Chemistry of Life	3
CH102L Chemistry of Life Lab	1
EV200 Portfolio 1	1
EV201 Environmental Science	3
EV201L Environmental Science Lab	1
EV300 Portfolio 2	1
EV310 Environmental Ethics and Policy	3
EV290 Environmental Science Seminar 1	1
EV390 Environmental Science Seminar 2	2
EV400 Portfolio 3	1
EV490 Environmental Science Seminar 3	1
EV499 Research in Environmental Science	3

## Environmental Science Cognates, minimum grade C-, 15 credits

Choose a minor from one of the following areas:

Education, Business, Communication Arts, Crime, Law and Justice, Pre-Law, Social Justice **OR** 

Complete the Environmental Policy & International Issues track

BA324 Entrepreneurship and Business Plan Development

**GO210** American Political Institutions

GO220 World Political Geography

HI320 Seminar in Globalization

MT212 Principles of Management OR

Complete the Graduate School track

MA151 Calculus I

MA152 Calculus II

PY201/PY201L General Physics I w/Lab

### PY202/PY202L General Physics II w/Lab

NOTE: Also must choose CH103 & CH104 for chemistry option in core and CH321 & CH322 for electives

## Environmental Science Electives, minimum grade C-, 10 credits

NOTE: Careful advising is necessary in choosing electives because of the diversity of career options available in environmental science.

1	
BI212 Genetics	3
BI213 Genetics Lab	3
BI275 Freshwater Biology	3
BI280 Marine Biology	3
BI285 Aquatic Biology Lab	3
BI310 Bioinformatics w/Lab	5
BI352 Microbiology	3
BI352L Microbiology Lab	2
BI370 Comparative Anatomy w/Lab	5
BI431 Current Topics in Biology	varies
BI491 Biochemistry Lab	3
BI492 Biochemistry I	3
BI493 Biochemistry II	3
CH102 Chemistry of Life	3
CH102L Chemistry of Life Lab	1
CH231 Analytical Chemistry	3
CH231L Analytical Chemistry Lab	2
CH321 Organic Chemistry I	3
CH321L Organic Chemistry I Lab	2
CH322 Organic Chemistry II	3
CH322L Organic Chemistry II Lab	2
EV331 Current Topics in Environmental Science	varies

### Environmental Internship, minimum grade S, 0 credits

EV288/EV388/EV488 Internships in Environmental Science

## **ENVIRONMENTAL STUDIES (BA) REQUIREMENTS**

- Fulfill all General Degree requirements see above
- Fulfill all General Education requirements see page 11, 40 credits
- Fulfill all Environmental Studies Major requirements see below

## Environmental Studies Core (all required), minimum grade C-, 27 credits

BI104/BI104L Introduction to Ecology & Diversity w/Lab	4
EV201/EV201L Environmental Science w/Lab	4
EV310 Environmental Ethics and Policy	3
BI343/BI343L Field Problems in Ecology w/Lab	4
EV200 Portfolio 1	1
EV290 Environmental Science Seminar 1	1
EV300 Portfolio 2	1

EV390 Environmental Science Seminar 2 EV400 Portfolio 3	2
BI480/BI480L Conservation Biology w/Lab	6
Environmental Studies Electives, minimum grade C-, 4 credits	
Choose 4 credits of electives with BI, CH or EV designation	
Environmental Studies Cognates (all required), minimum grade C-, 11	credits
MA118 Introduction to Statistics	3
PY102/PY102L Physical Science w/Lab	4
CH102/CH102L Chemistry of Life w/Lab	4
Environmental Internship, minimum grade S, 0 credits	
EV288/EV388/EV488 Internships in Environmental Science	
ENVIRONMENTAL SCIENCE MINOR, minimum grade C-, minimum 15 cro	edits
BI104/BI104L Introduction to Ecology and Diversity w/Lab	4
EV201/EV201L Environmental Science w/Lab	4
EV310 Environmental Ethics and Policy	3
Choose one of the following:	
BI343/BI343L Field Problems in Ecology w/Lab <b>OR</b>	4
BI480/BI480L Conservation Biology w/Lab	6
ENVIRONMENTAL SCIENCE COURSE DESCRIPTIONS	

# **EV200 Portfolio 1 (1 cr.)** This course guides students through the process of developing a portfolio that demonstrates their foundational competencies in life science subject

matter knowledge, professional goal setting, data analysis, laboratory methods, aesthetics, writing, presenting, experiential learning and group interactions. Emphasis is placed on collecting and documenting artifacts for each competency and reflecting on their accomplishments, areas for improvement, and future plans. This course is the first in a three-course sequence. *Prerequisite: CP105 plus 2 of the following courses: BI103, BI104, BI105.* 

**EV201 Environmental Science (3 cr.)** This introductory course covers principles of environmental science, the study of how humans interact with the creation. The course includes topics such as human population growth, extinction and loss of biodiversity, air and water pollution, global climate change, food and water security, waste management, energy and water conservation, and sustainable development. Emphasis will be placed on understanding our Christian response to these concerns as caretakers of the earth. *Prerequisite: BI104. Co-requisite: EV201L.* 

**EV201L Environmental Science Lab (I cr.)** This laboratory will engage the students in exercises and projects that will help them understand key principles and concepts in environmental science. Emphasis on investigating surface water, soil, and groundwater pollution, as well as renewable energy sources and population growth. *Prerequisite: BI104L. Co-requisite: EV201.* 

**EV290 Environmental Science Seminar 1 (1 cr.)** Begins the process of teaching students the nature of scientific research, finding and reading scientific literature, formatting of research papers, and improving their scientific writing skills. Students will establish a foundation for using the scientific method to design experiments and develop an independent research project. The course includes various modes of scientific communication including written and oral presentations. *Prerequisite: Sophomore standing, BI104, and BI103 or BI105.* 

**EV300 Portfolio 2 (1 cr.)** This course guides students through the process of producing a portfolio that demonstrates their developing competencies in life science subject matter knowledge, professional goal setting, data analysis, laboratory methods, aesthetics, writing, presenting, experiential learning and group interactions. Emphasis is placed on collecting and documenting artifacts for each competency and reflecting on their accomplishments, areas for improvement, and future plans. This course is the second in a three-course sequence. *Prerequisite: EV200.* 

**EV310 Environmental Ethics and Policy (3 cr.)** A discussion course that introduces the student to the variety of ethical approaches taken with regard to environmental issues, including creation care, stewardship, biocentrism, ecocentrism, ecofeminism, the land ethic, and deep ecology. Students will also look at environmental policies that arise out of these various approaches to environmental ethics, addressing such issues as climate change, population growth, natural resources management, and environmental justice. *Prerequisite: Junior standing.* 

**EV331/EV331L Topics in Environmental Science (6 cr.)** Discussion of one or more current topics related to the fields of ecology and environmental science. Possible topics might include environmental methodologies, data analysis and interpretation, venomous and poisonous animals, global climate change, forest ecology, and water resources. *Prerequisite: Permission of the instructor.* 

### EV388/EV488 Internships in Environmental Science

**EV390 Environmental Science Seminar 2 (2 cr.)** Teaches critical analysis of primary journal articles and seminars. Other topics include career planning and social and ethical problems in Environmental Science. *Prerequisite: EV290 and Junior standing.* 

**EV400 Portfolio 3 (1 cr.)** This course guides students through the process of developing a portfolio that demonstrates their mastery of life science subject matter knowledge, professional goal setting, data analysis, laboratory methods, aesthetics, writing, presenting, experiential learning and group interactions. Emphasis is placed on collecting and documenting artifacts for each competency and reflecting on their accomplishments, areas for improvement, and future plans. This course is the third in a three-course sequence. *Prerequisite: EV300.* 

**EV490 Environmental Science Seminar 3 (1 cr.)** Teaches critical analysis of primary journal articles and seminars. Requires an extensive research project and presentation before the Division of Natural Sciences and Mathematics. Other topics include career planning and social and ethical problems in environmental science. Required of all majors. *Prerequisite: EV390 and Senior standing.* 

**EV499 Independent Study/Research (cr. var)** Includes individual work under staff supervision for well-qualified upperclassmen. A written report with an oral summary and review before two or more faculty members is required. Total credit hours for two semesters should not exceed the maximum allowed for fulfilling degree requirements. *Prerequisite: An outline of the proposed work, consent of the supervising staff member, and approval by the program chair.* 

# General Studies

### DEGREE OFFERED

Associate of Arts: General Studies

### **GENERAL STUDIES (AA) REQUIREMENTS**

The Associate of Arts in General Studies requires the completion of 61 credit hours.

- A minimum of 18 credit hours in the major area of study
- A cumulative grade point average of 1.8 or better

All students must complete the following courses:

**CP100 Critical Writing** 

**CP105** First Year Foundations

CP150 Christian Tradition

CP195 The West in the World Since 1500

CP235 Arts and Music

CP245 Literature and Culture

CP250 The Bible in Current Perspective

CP290 East Meets West: Western Philosophy & Globalization

PE101/PE102 Physical Education requirement (2 credits)

Social Science, 3 credits

Lab Science, 4 credits

Math or Science option, 3 credits

# Government

Division of Church, Society & Humanity

Dr. William McCoy, Professor

Dr. Nicholas Pruitt, Associate Professor

Thomas Harrison, Esq. Visiting Professor

### GOVERNMENT MINOR, minimum grade C-, 15 credits

**GO210** American Political Institutions Four additional 3 credit GO courses

3

12

### **GOVERNMENT COURSE DESCRIPTIONS**

GO210 American Political Institutions (3 cr.) Analysis of the political institutions in the United States with the emphasis on function rather than structure. A careful examination of the prerequisites for, and benefits to be received from, our system of government, is the focus of this course.

GO220 World Political Geography (3 cr.) A survey of the geographical regions of the world with emphasis upon the political, economic, and cultural aspects of geography.

GO320 Comparative Government (3 cr.) Compares modern European political systems in Great Britain, France, The German Federal Republic, and Russia with that of the United States. An effort will be made to place politics and government institutions in their appropriate ideological, social, historical, international and economic settings. Prerequisite: GO210.

GO371/HI371 The Conservative Imagination (3 cr.) Explores the conservative imagination in political thought and culture with special focus on the various types of conservatism that emerged during the 20th century. Prerequisite: GO210 or instructor's permission.

GO372/HI372 The Liberal Imagination (3 cr.) Explores the liberal imagination in political thought and culture with special focus on the various types of liberalism that emerged during the 20th century. Prerequisite: GO210 or instructor's permission.

GO452 Seminar in Law and American Society (3 cr.) Upper division seminar designed to introduce students to the public policy concerns and philosophical concepts which shape the law as it operates in American society. Students will acquire the basic tools with which to analyze contemporary legal events in their proper historical and cultural contexts. This course pays particular attention to the role of judicial review in the legal process and to the unique relationship between public morality and the American legal system. Prerequisites: GO210 and permission of the instructor.

**GO455 Seminar in Christianity and the Law (3 cr.)** A study of the rich relationship that exists between the Christian faith and the law. Special attention will be paid to Christian perspectives in various schools of legal thought (e.g., liberalism, legal realism, critical legal studies, feminism, and law and economics).

**GO490 Independent Study (3 cr.)** A program of independent study; students with satisfactory academic records are encouraged to propose a program to the faculty. *Prerequisites: GO210 and permission of the instructor.* 

**GO495 Internship in Government (3 cr.)** Supervised observation and practice in government and/or political work, culminating in a paper that reflects and integrates the knowledge gained from involvement in an approved internship. *Prerequisites: GO210 and permission of the instructor.* 

**GO499 Special Topics in Government (3 cr.)** Applies to special courses in government or political science that are offered by members of the department or visiting scholars. *Prerequisite: GO210.* 

## Health Science

Division of Science & Technology

Sheryl Burt, Instructor

Dr. Robert Logan, Assistant Professor

Dr. Sherryllene Pinnock-Kariuki, Assistant Professor

Dr. Matthew Waterman, Professor

### MISSION:

The mission of the Life Science Program of Eastern Nazarene College is to prepare students for lifelong learning and scientific service in the fields of biology, biochemistry, environmental science, and pre-professional training for dentistry, medicine, nursing, pharmacy, physical therapy, teaching and veterinary medicine. The department also guides students in the scientific endeavor of seeking truth, which is fundamental for all successful scientific inquiry.

### **GOALS:**

- To provide broad based instruction and experience in the foundational knowledge, evidence-based practice, experimental techniques, and ethical outlooks in the general Health Professions. This includes the basics of instruction needed to enter the Health Professions including molecular, cellular, organismal, ecological and environmental biology, foundational chemistry, basic public and global health understanding and approaches, and guided field-based experience.
- To encourage an understanding and appreciation of the scientific method and evidence-based practice as foundational knowledge to approach the field of health science.
- To prepare students through a highly customizable degree for successful graduate study in the Health Professions, such as but not limited to, nursing, physical therapy, and athletic training.

# DEGREES, MAJORS AND TRACKS OFFERED

Bachelor of Science: Health Science

Minor: Exercise Science

### **GENERAL DEGREE REQUIREMENTS**

- Fulfill all General Education Requirements see below
- Earn minimum of 123 Graduation Credits
- Pass Program Portfolio Assessment
- Meet minimum Cumulative GPA of 2.0

Note: This is a customizable degree designed to meet the needs and goals of the student. It is strongly encouraged that you consult the Health Professions Preparatory Courses of Study section of the Course Catalog. Students should research graduate program requirements and fit in electives which fulfill requirements for their desired field of interest.

## GENERAL EDUCATION REQUIREMENTS – 34 credits required

See page 11 for course options.

Cultural Perspectives Requirements, 32 credits Physical Education Skills, 2 credits

### **HEALTH SCIENCE (BS) REQUIREMENTS**

- Fulfill all General Degree Requirements see above
- Fulfill all General Education Requirements see page 11, 34 credits
- Fulfill all Health Science Major Requirements see below

#### Health Science Core (all required), minimum grade C-, 32 credits BI103 Introduction to Cell Biology and Genetics 3 BI104/BI104L Introduction to Ecology and Diversity w/Lab OR 4 EV201/EV201L Environmental Science w/Lab 3 BI105 Introduction to Plants and Animals BI106 Introduction to Research Methods 1 – Discovery 1 BI107 Introduction to Research Methods 2 – Genomics 1 BI203/BI203L Musculoskeletal A&P w/Lab 5 BI204/BI204L Systemic A&P w/Lab 5 HS110 Introduction to Public and Global Health 3 HS190 Seminar 1: Introduction to the Health Science Field and Praxis 1 HS200 Portfolio 1 1 HS290 Seminar 2: Introduction to Research and Evidence Based Practice in Healthcare 1 HS300 Portfolio 2 1 HS390 Seminar 3: Medical Terminology and Bioethics 1 HS400 Portfolio 3 HS490 Seminar 4: Interdisciplinary and Systems Approach to the Healthcare Field 1 Health Science Cognates, minimum grade C-, 20 credits PS110 Introduction to Psychology 3 PS240 Lifespan Development 3 SO110 Introduction to Sociology 3

3

MA118 Introduction to Statistics

# Chemistry Sequence (choose sequence 1 or 2) minimum grade C-, 8 credits

Chemistry Sequence 1
CH101/CH101L Introduction to Chemistry w/Lab 4
CH102/CH102L Chemistry of Life w/Lab 4
Chemistry Sequence 2
CH103/CH103L General Chemistry I w/Lab 4
CH104/CH104L General Chemistry II w/Lab 4

Biology/Chemistry/Environmental Science/Health Science electives (choose BI/ CH/EV/HS courses 200 level or above; choose at least one course above 300 w/Lab) minimum grade C-, 8 credits

## Internship requirement, minimum grade S, 0 credits

Choose HS288/HS388/HS488 Praxis in Healthcare

### EXERCISE SCIENCE MINOR, minimum grade C-, minimum 20 credits

HS316 Kinesiology	3
HS317 Physiology of Exercise	3
BI241 Nutrition for Majors <b>OR</b>	3
BI110/BI110L Introduction to Nutrition for Non-Majors w/Lab	4
BI203/BI203L Musculoskeletal Anatomy and Physiology w/Lab	5
Complete a minimum of six credits from the list below:	
SM350 Psychology of Sport	3
CH102/CH102L Chemistry of Life w/Lab <b>OR</b>	4
BI204/BI204L Systemic Anatomy and Physiology w/Lab	5
PS330 Substance Abuse	3
PS432 Physiological Psychology	3
SM282 Principles of Leadership and Coaching	3

### HEALTH SCIENCE COURSE DESCRIPTIONS

**HS110** Introduction to Public and Global Health (3 cr.) Students will begin to build a foundation of the principles and practice of public health in a global context. Public health can be both a profession as well as a way of thinking called population health, the study of which provides students with a keyway of looking at the world. The course will be essential to students seeking a public health profession, as well as those seeking clinically oriented professions, business, and law degrees. In the context of a liberal arts education, population health is a way of thinking which prepares the student to be a strong citizen in a democracy and to understand how and why different ideas interact with one another, called systems thinking. The topics which will be covered in this course include the (1) principles of public health, (2) tools of population health, (3) preventing disease, disability and death, (4) health professionals, institutions and systems.

HS190 Seminar 1: Introduction to the Health Science Field and Praxis (1 cr.) In this Freshman level course, students will be introduced to the health science field. Students will learn the various roles are responsibilities with the healthcare system. They will begin to learn how to work together as part of a team while respecting and utilizing the expertise other students have to offer. Lastly, they will be introduced to and guided towards preparing for their Praxis in Health Science.

**HS200 Portfolio 1 (1 cr.)** This course guides students through the process of developing a portfolio that demonstrates their foundational competencies in life science subject matter knowledge, professional goal setting, data analysis, laboratory methods, aesthetics, writing, presenting, experiential learning and group interactions. Emphasis is placed on collecting and documenting artifacts for each competency and reflecting on their accomplishments, areas for improvement, and future plans. This course is the first in a three-course sequence. *Prerequisite: CP105 plus 2 of the following courses: B1103, B1104, B1105.* 

**HS290 Seminar 2: Introduction to Research and Evidence Based Practice in Healthcare (1 cr.)** In this second course in the series of 4 seminar courses, students will be introduced to the importance of Research and Evidence Based Practice in Health Care. Students will focus on finding, evaluating, and then implementing changes to their future practice based off what they have found in the literature.

**HS300 Portfolio 2 (1 cr.)** This course guides students through the process of producing a portfolio that demonstrates their developing competencies in life science subject matter knowledge, professional goal setting, data analysis, laboratory methods, aesthetics, writing, presenting, experiential learning and group interactions. Emphasis is placed on collecting and documenting artifacts for each competency and reflecting on their accomplishments, areas for improvement, and future plans. This course is the second in a three-course sequence. *Prerequisite: HS200.* 

**HS316 Kinesiology (3 cr.)** Studies human movement from the view of the physical sciences founded in the mechanics of anatomy and physiology.

**HS317 Physiology of Exercise (3 cr.)** Description and explanation of the acute and chronic physiological responses that accompany single and repeated bouts of physical exercise.

HS390 Seminar 3: Medical Terminology and Bioethics (1 cr.) In this third course in the series of 4 seminar courses, students will be introduced to the importance of ethics and medical terminology in the healthcare field. Students will focus on demonstrating the key ethical issues facing medicine today and learn how to competently provide care to a patient who is experiencing these challenges. The structure of the course will focus on competently and empathetically working in the medical field.

**HS400 Portfolio 3 (1 cr.)** This course guides students through the process of developing a portfolio that demonstrates their mastery of life science subject matter knowledge, professional goal setting, data analysis, laboratory methods, aesthetics, writing, presenting, experiential learning and group interactions. Emphasis is placed on collecting and documenting artifacts for each competency and reflecting on their accomplishments, areas for improvement, and future plans. This course is the third in a three-course sequence. *Prerequisite: HS300.* 

HS490 Seminar 4: Interdisciplinary and Systems Approach to the Healthcare Field (1 cr.) In this fourth course in the series of 4 seminar courses, students will build off of what was learned in the three previous seminar courses. Students will focus on finding, evaluating, and then implementing changes to their future practice based off what they have found in the literature. Students will work on a systems-based approach to solving the problem at hand. Students will present their project utilizing a media of their choice and an oral presentation. Students will compile what they have learned in the Praxis as well as 3 seminar courses to compile and present what they have learned.

HS288/388/488 Praxis in Healthcare (cr. var) Internship opportunities in health science arranged by the Health Science Program.

# **History**

Division of Church, Society & Humanity
Dr. William McCoy, Professor
Dr. Nicholas Pruitt, Associate Professor

### MISSION:

The Faculty of History at Eastern Nazarene College instruct students in the craft of historical study as a means of understanding both the past and the contemporary world. In support of ENC's larger mission as a Christian liberal arts institution, the History faculty endeavors to develop a community characterized by the pursuit of academic excellence, mutual respect for others, and an integrated Christian faith.

### GOALS:

- 1. To impart knowledge of the past by exposing students to the people, cultures, and ideas that have made a major impact on the development of western and world civilizations. Our students will, therefore, be able to:
  - a. Understand the dynamics of change over time.
  - b. Articulate the complex differences in human experience across time and space.
- 2. To expose students to important schools of historical interpretation and to teach students to read and value history for themselves, thereby encouraging discussion and critical thinking about the past and the contemporary world. Our students will, therefore, be able to:
  - a. Recognize and generate effective historical narratives and arguments based on appropriate evidence.
  - b. Evaluate a variety of historical sources for their credibility, position, and perspective.
  - Articulate the ethics of historical practice in terms of building on other scholars' work
- To foster a spirit of historical empathy and wisdom that promotes tolerance, understanding, and appreciation for the views of others. Our students will, therefore, be able to:
  - a. Interpret the past in context and on its own terms.
  - b. Engage a diversity of viewpoints in a civil and constructive fashion.
  - Apply historical knowledge and analysis to contemporary social and political conversations.
- 4. To foster the essential skills of research, analysis, and communication necessary to teach history in secondary schools, pursue studies in graduate or professional schools, or enter a variety of professions. Our students will, therefore, be able to:
  - a. Conduct research based on the critical evaluation of a variety of sources.
  - b. Present effective, reasoned arguments in both written and oral form.
- 5. To give students a breadth of background and depth of perception that will illuminate the liberal arts. Our students will, therefore, be able to:
  - a. Identify links between their studies in history and their studies in ENC's general education curriculum or other disciplines.

- Appreciate the unique educational and cultural institutions available to them in the Boston area.
- c. Assess the value of liberal arts education as a framework for lifelong learning.
- 6. To encourage students to explore issues related to a Christian approach to understanding history. Our students will, therefore, be able to:
  - Recognize the limits of academic historical methods in attributing a deeper meaning to the past.
  - b. Assess the difference between academic and providentialist understandings of the past.
  - c. Articulate the contours of their own philosophy of history.

## DEGREES, MAJORS AND TRACKS OFFERED

**Bachelor of Arts:** History Education; History **Minor:** History, Public Administration

## **GENERAL DEGREE REQUIREMENTS**

- Fulfill all General Education Requirements see below
- Earn a minimum 123 Graduation Credits
- Pass Program Portfolio Assessment
- Meet minimum Cumulative GPA of 2.5

# GENERAL EDUCATION REQUIREMENTS – 44 credits required

See page 11 for course options.

Cultural Perspectives Requirements, 32 credits

Physical Education Skills, 2 credits

Lab Science and Math or Science, 7 credits

Social Science, 3 credits

### HISTORY EDUCATION (BA) REQUIREMENTS

- Fulfill General Degree Requirements see above
- Fulfill all General Education Requirements see page 11, 44 credits
- Fulfill all History Education Major Requirements see below

### History Education Core (all required), minimum grade C, 15 credits

GO210 American Political Institutions	3
GO220 World Political Geography	3
HI150 American Experience	3
HI310 Critical Readings in History	3
HU491 Humanities Senior Seminar	3
American History Sequence (choose two), minimum grade C, 6 credits	
HI223 Colonial and Revolutionary America	3
HI224 Forging of a New Nation	3
11122 I Torging of a new Nation	
HI225 History of the US: 1865–1919	3
	3 3

European History Sequence (choose two), minimum grade C, 6 credits	
HI227 Ancient Mediterranean World	3
HI228 Medieval Europe	3
HI229 Early Europe: 1500–1815	3
HI230 Modern Europe: 1815–Present	3
Non-Western History Requirement, minimum grade C, 3 credits	
HI350 Topics in Non-Western History	3
Upper Level Electives (choose two), minimum grade C, 6 credits	
HI337 History of Science & Christianity	3
HI340 History of International Relations: 1945–present	3
HI341 Holocaust	3
HI346 America in the 1960s	3
HI347 History/Culture of the American South	3
HI353 History of the Civil Rights Movement	3
HI371/G0371 The Conservative Imagination	3
HI372/GO372 The Liberal Imagination	3
HI399 Special Topics in History	3
HI410 Seminar in American History	3
HI420 Seminar in European History	3
HI499 Special Topics in History	3
HISTORY (BA) REQUIREMENTS	
• Fulfill all General Degree Requirements – see above	
• Fulfill General Education Requirements – see page 11, 44 credits	
Social Science preferred, GO210 American Political Institutions	
Fulfill all History Major Requirements – see below	
History Core (all required), minimum grade C, 9 credits	
HI150 American Experience	3
HI310 Critical Readings in History	3
HU491 Humanities Senior Seminar	3
American History Sequence (choose two), minimum grade C, 6 credits	
HI223 Colonial and Revolutionary America	3
HI224 Forging of a New Nation	3
HI225 History of the US: 1865–1919	3
HI226 History of the US: 1920–Present	3
·	
European History Sequence (choose two), minimum grade C, 6 credits HI227 Ancient Mediterranean World	2
	3
HI228 Medieval Europe	3
HI229 Early Europe: 1500—Present	3
HI230 Modern Europe: 1815–Present	3
Non-Western History Requirement, minimum grade C, 3 credits	
HI350 Topics in Non-Western History	3

# Upper Level Electives (choose four), minimum grade C, 12 credits

HI337 History of Science & Christianity	3
HI340 History of International Relations: 1945-present	3
HI341 Holocaust	3
HI346 America in the 1960s	3
HI347 History/Culture of the American South	3
HI353 History of the Civil Rights Movement	2
HI371/GO371 The Conservative Imagination	2
HI372/GO372 The Liberal Imagination	2
HI399 Special Topics in History	2
HI410 Seminar in American History	2
HI420 Seminar in European History	2
HI499 Special Topics in History	2

### **Independent Study**

A student who wishes to work on a project with a faculty member may ask that instructor to supervise an Independent Study (HI496). A detailed plan of study, drawn up by the instructor and the student, is required. Ordinarily faculty members do not supervise Independent Studies on topics covered in regularly scheduled classes.

## Foreign Language

History and History Education majors are encouraged to develop competence in one or more foreign languages and to use this competence in their historical reading and research. Knowledge of a foreign language is particularly important for students planning graduate work.

### HISTORY MINORS, minimum grade C-, minimum 15 credits

### **History Minor Requirements**

 Required classes: five courses with an HI prefix. At least two courses must be at the 300 or 400 level.

## **Public Administration Minor Requirements**

- Required classes: AC221, GO210, MT212, PB200, PB301, PB311, PB400
- Required classes for Business Majors: GO210, PB200, PB301, PB311, PB400
- Required classes for Education, History, and Liberal Arts Majors: AC221, MT212, PB200, PB301, PB311, PB400

### HISTORY COURSE DESCRIPTIONS

HI150 The American Experience (3 cr.) A one-semester survey course designed to provide the student with a broad overview of the American experience. It is especially recommended for students preparing for a career in education. Major topics covered include early America and Americans (beginnings to 1650), settlements, colonies, and the emergence of American identity (1600–1763), the American Revolution creating a new nation (1750–1815), expansion, reform, and economic growth (1815–1861), the Civil War and Reconstruction (1861–1877), the advent of modern America (1877–1914), the United States and two World Wars (1914–1945), and the contemporary United States (1945–Present). This course may not be applied to the two-course US History requirement for History majors, although it may be used as a History elective.

HI223 Colonial and Revolutionary America (3 cr.) The first of four period courses in American history. A survey of America during the colonial and revolutionary periods. Major topics include: early European encounters with North America, growth of English settlements, Native American civilizations, life in provincial America, American colonies in the British Empire, and the War for American Independence. The New England experience and major historiographical interpretations will be emphasized. Offered alternate years.

HI224 Forging of a New Nation (3 cr.) The second of four period courses in American history. A survey of the United States from its inception as an independent nation through the crisis of the Civil War. Major topics include: the Constitution and the New Republic, Jeffersonian and Jacksonian democracy, American society and culture, westward expansion, slavery, sectionalism, reform, and war. Major historiographical interpretations will be emphasized. Offered alternate years.

HI225 History of the US: 1865–1919 (3 cr.) The third of four period courses in American history. This is a survey of the United States from 1865 to 1918. Major topics include Reconstruction, industrial expansion, urbanization, immigration, intellectual and cultural trends, Progressivism, Imperialism, and World War I. Major historiographical interpretations will be emphasized.

HI226 History of the US: 1920 to Present (3 cr.) The last of four period courses in American history. This is a survey of the United States from the 1920s to the present. Major topics include: the new postwar era, the Great Depression and the New Deal, World War II and the Cold War, and American society and culture in flux. Major historiographical interpretations will be emphasized.

HI227 Ancient Mediterranean World (3 cr.) Studies the social and cultural developments, economic and political ideas and institutions of the ancient Mediterranean world including: the political, socioeconomic, artistic, and religious history of ancient Mesopotamia and Egypt; the successes and failures of Ancient Greece and Athenian democracy; and the origin, development, expansion, and achievements of the Roman Republic and Empire. Offered alternate years.

HI228 Medieval Europe (3 cr.) Examines the social, cultural, religious, and economic development of medieval Europe from the origins of Christianity to the beginnings of the Protestant Reformation. Particular attention is paid to the varying relations between church and state, the birth of urban culture and economy, institutional and popular religious movements, and the early formation of nation states. Offered alternate years.

HI229 Early Europe: 1500–1815 (3 cr.) Social, cultural, religious, economic, and political developments in Europe from the Renaissance to the fall of Napoleon. Special emphasis is given to the Protestant and Catholic Reformations, the evolution of monarchical power, the rise of European overseas empires, the scientific revolution, the Enlightenment, the French Revolution, and the rise and fall of Napoleon Bonaparte.

HI230 Modern Europe: 1815–Present (3 cr.) Overview of European history since the fall of Napoleon: international developments in the age of Metternich, the rise of industrial society, the evolution of national states in Germany and Italy, the Bismarckian system, the age of imperialism, World War I, the rise of Bolshevism, fascism, and Nazism, World War II, the origins and development of the Cold War, the formation of the European Community, and the breakup of the Soviet Empire. Offered alternate years.

**HI299 Special Topics in History (cr. var)** Applies to special courses in History offered at the advanced sophomore level. *Prerequisites: Sophomore, permission of instructor.* 

HI310 Critical Readings in History (3 cr.) A required course in historical criticism and methods, students will explore the nature of historical inquiry and practice along with questions of historical epistemology and the relationship of the Christian faith to history. Prerequisite: 9 credits of history course work.

HI320/SO320 Seminar in Globalization (3 cr.) Examines globalization from the perspective of politics, history, sociology, and theology. *Prerequisite: Junior standing. Cross-listed as SO320. Usually offered annually.* 

HI337 History of Science and Christianity (3 cr.) Explores the interaction of two of history's most powerful forces – science and Christianity – from the Middle Ages to the present. *Prerequisite: CP195, CP325.* 

HI340 History of International Relations: 1945–Present (3 cr.) The causes and consequences of the Soviet-American Cold War from its origins in Europe to its extension to Asia, Africa, and Latin America. The rise of the multi-polar international system, the emergence of the nonaligned blocs, and inter- and intra-alliance conflicts. Offered varying years.

HI341 Holocaust (3 cr.) An intensive survey of the history of the Holocaust, beginning with the growth of anti-Semitism in Europe at the end of the nineteenth century and ending with the legacy of the Holocaust today. Individual topics will include Jewish life in Europe before the Holocaust, the Nazi rise to power, implementation of the Final Solution, the response of collaborators and rescuers, the role of the Church, questions of responsibility, and the problems of survivor memory. Offered varying years.

HI346 America in the 1960s (3 cr.) This course analyzes the political, cultural, and intellectual history of America in the turbulent 1960s. The African-American freedom struggle, the Great Society, the rise of the New Right and the New Left, the controversies surrounding America's involvement in Vietnam, student radicalism, sexual liberation, the counterculture, and conservative backlash will be examined. The course will emphasize changes in liberalism and the revitalization of conservatism. Studying popular music, film, literature, and works of history, students will focus on the tensions between integration and separatism, between youth culture and traditional society, and the massive transformation of the US.

HI347 History and Culture of the American South since 1865 (3 cr.) A comprehensive and critical view of the American South. The South will be studied as a distinct geographic location that shaped American politics and culture. In addition, the course will chart the South's history as an idea that altered how Americans perceived race, conservative politics, gender and sexuality, religion, and economics. A major theme of the course will be the southernization of American society. Students will become familiar with interpretive historical literature on the South and will examine representations of Dixie in popular music, film, collective memory, literature, and political culture. Offered varying years.

HI350 Topics in Non-Western History (3 cr.) Applies to courses taught on a rotating basis that explore various aspects of and themes in non-Western history, including Asian, African, and topical courses. *Prerequisite: CP195.* 

HI353 History of the Civil Rights Movement (3 cr.) Explores the history of the African-American freedom struggle from the 1890s to the late 20th century. This course will grapple with the basic inequalities and legal restrictions faced by people of color in the U.S. over a hundred year period. It will also cover the major attempts of whites and blacks to overcome institutional and social race prejudice. Students will study the rise of the NAACP, the formation of the liberal coalition, massive white resistance, the post-1950s civil rights movement, and the lives of a number of men and women who campaigned for and against racial justice.

HI371/GO371 The Conservative Imagination (3 cr.) Explores the conservative imagination in political thought and culture with special focus on the various types of conservatism that emerged during the 20th century. *Prerequisite: GO210 or instructor's permission.* 

HI372/GO372 The Liberal Imagination (3 cr.) Explores the liberal imagination in political thought and culture with special focus on the various types of liberalism that emerged during the 20th century. Prerequisite: GO210 or instructor's permission.

**HI399 Special Topics in History (cr. var)** Applies to special courses in History offered at the junior level. *Prerequisites: Sophomore standing and permission of instructor.* 

**HI410 Seminar in American History (3 cr.)** A senior-level seminar focusing on major interpretations and trends in American historiography. *Offered annually.* 

HI420 Seminar in European History (3 cr.) A senior-level seminar focusing on trends and topics in European historiography. Options include religion and society, Seminar in European History, or modern France. *Prerequisite: HI223, HI224, HI225 or HI226.*Offered annually.

**HI430 Seminar, Christian Faith and Historical Inquiry (3 cr.)** A senior-level seminar focusing on the impact of Christian faith and thought on historical inquiry. *Offered varying years. Prerequisite: HI310 or permission of the instructor.* 

**HI496 Independent Study (cr. var)** Students with satisfactory academic records are encouraged to propose a program of independent study for 3 credit hours. *Offered varying years*.

**HI499 Special Topics in History (3 cr.)** Applies to special courses in History offered at the senior level. *Prerequisites: Senior standing, permission of instructor.* 

**HU491 Humanities Senior Seminar (3 cr.)** A seminar devoted to the research, writing, and/ or production of a significant thesis or capstone project during a student's senior year. This class is a senior's culmination of all the skills they have learned and combines a workshop format to allow ample attention to the specific demands of student projects. Students will also be expected to present their work to the public. *Offered annually.* 

**PB200 Introduction to Public Administration (3 cr.)** If you've ever wondered how the vast apparatus of government keeps society on its rails, this course will answer your questions by introducing you to the field of public administration. By the end of this course you'll understand how governmental administration works, become familiar with public sector management issues and understand how government administrators turn policy into process. This is a RIZE course. *Prerequisite: GO210.* 

**PB301 State & Local Government Administration (3 cr.)** This course provides students with an understanding of the structure and function of state and local governments in the United States. Students will explore local and state-level policy issues and administrative processes. They will also explore urban issues in the U.S. and discuss solutions to all of these challenges. This is a RIZE course. *Prerequisite: GO210.* 

**PB311 Public Budgeting & Finance (3 cr.)** This course covers fiscal and budgetary policies and practices in public sector and governmental organizations. Students will improve their understanding of revenue, expenditure, deficit spending, and debt, specifically as they relate to government. They will also examine the functions of accounting in the public sector and learn to create financial reports. This is a RIZE course. *Prerequisites: AC221, GO210, and PB200.* 

**PB400 Public Administration Capstone (3 cr.)** This capstone is the culmination for Public Administration majors and should be taken as the final course in a student's studies for the major. It is intended to synthesize all of a student's learnings in the field into one public-sector focused project. Students will work in groups with a public sector organization, such as a non-profit, or their local government. This is a RIZE course. *Prerequisites: AC221, GO210, and PB200, PB301, and PB311.* 

# Interdisciplinary Studies

Division of General Education

### INTERDISCIPLINARY STUDIES COURSE DESCRIPTIONS

**IS199 Contemporary Questions (3 cr.)** This seminar is an introduction to interdisciplinary investigation, framed around a series of open-ended questions of significance to the world today. While the particular topics of investigation will vary according to the specialty of the instructor, the issues raised will be explored in a non-dogmatic way, emphasizing intellectual rigor rather than particular conclusions. Class discussions will identify, understand, and appreciate diversity of perspectives. *Instructor permission required*. *Freshmen Honors course*.

**IS299 Boston-Area Lectures and Colloquia (1.5 cr.)** This 1.5 credit two-semester course enables a relatively small group of students (target number of 15) to attend several Boston-area colloquia and lectures each semester in the company of an ENC faculty meeting. Seven colloquium and lecture options will be offered each semester, out of which the students must attend five. The students and the faculty member will travel to the lecture as a group and discuss their reactions to the event afterward. *Prerequisite: IS199 or permission of the instructor. Sophomore Honors course. Repeatable for credit, for a maximum of 3.0 credits.* 

# Liberal Arts

**Cross Divisional Program** 

# **DEGREE OFFERED**

Bachelor of Arts: Liberal Arts

# **GENERAL DEGREE REQUIREMENTS**

- Fulfill all General Education Requirements see below
- Earn minimum of 123 Graduation Credits
- Pass Program Portfolio Assessment
- Meet minimum Cumulative GPA of 2.0

# GENERAL EDUCATION REQUIREMENTS – 44 credits required

See page 11 for course options.

Cultural Perspectives Requirements, 32 credits

Physical Education, 2 credits

Lab Science and Math or Science, 7 credits

Required Social Science: PS240 Lifespan Development, 3 credits

# LIBERAL ARTS (BA) REQUIREMENTS

- Fulfill all General Degree requirements see above
- Fulfill all General Education requirements see page 11, 44 credits
- Fulfill all Liberal Arts Major requirements see below

# Liberal Arts Core (all required), minimum grade C-, 22 credits

1 Math Course (100 level or above)	3
1 Lab Science Course (from BI, CH or PY)	4
BA231 Principles of Microeconomics	3
GO210 American Political Institutions	3

GO220 World Political Geography	3
HI150 American Experience	3
1 Literature Course (200 level or above)	3

# Choose five courses in major field of study, 200 level or above, minimum grade C-, 15 credits

Major Field may be any Science discipline, Education, History, Math, any Social Science, or Religion.

# **Mathematics**

Division of Science & Technology

Dr. Zhihui Nie, Assistant Professor

Scott Sherman, Assistant Professor

Dr. LeRoy Hammerstrom, Professor Emeritus

# **MISSION:**

The mission of the Computational Sciences Program of Eastern Nazarene College is to provide an environment where all students are able to see some of the power and beauty of the language of mathematics, are able to improve their own skills and understanding of mathematics, and are able to learn from a real-life mathematician.

# GOALS:

- To provide students with exposure to mathematics and mathematicians as part of their liberal arts education.
- 2. To provide support for disciplines that make use of mathematics.
- 3. To provide mathematical training for students preparing for positions in industry, teaching or graduate school.

# **DEGREES, MAJORS AND TRACKS OFFERED**

Bachelor of Science: Mathematics; Applied Mathematics

**Bachelor of Arts:** Mathematics

Minor: Mathematics

# **GENERAL DEGREE REQUIREMENTS**

- Fulfill all General Education Requirements see below
- Earn minimum of 123 Graduation Credits
- Pass Program Portfolio Assessment
- Meet minimum Cumulative GPA of 2.0

# GENERAL EDUCATION REQUIREMENTS – 44 credits required

See page 11 for course options.

Cultural Perspectives Requirements, 32 credits

Physical Education Skills, 2 credits

Lab Science, 4 credits

Required Math: CS131 Computer Programming I, 3 credits

Social Science, 3 credits

MA	ATHEMATICS (BS) DEGREE REQUIREMENTS	
•	Fulfill all General Degree Requirements – see above	
•	Fulfill all General Education Requirements – see page 11, 44 credits	
•	Fulfill all Mathematics (BS) Major Requirements – see below	
Ma	athematics Core (all required), minimum grade C-, 18 credits	
	MA151 Calculus I	4
	MA152 Calculus II	4
	MA201 Linear Algebra	4
	MA211 Calculus III	3
	MA290 Portfolio I	1
	MA390 Portfolio II	1
	MA490 Portfolio III	1
Ma	athematics (BS) Electives, minimum grade C-, 15 credits	
	Five courses numbered MA123 or higher (two must be at 300 level).	
Ma	athematics (BS) Required 400-level courses, minimum grade C-, 7 credits	
	MA411 Real Analysis	3
	MA421 Modern Algebra I	4
AP	PLIED MATHEMATICS (BS) DEGREE REQUIREMENTS	
•	Fulfill all General Degree Requirements – see above	
•	Fulfill all General Education Requirements – see page 11, 44 credits	
•	Fulfill all Applied Mathematics (BS) Major Requirements – see below	
Δn	plied Mathematics Core (all required), minimum grade C-, 30 credits	
Αþ	MA151 Calculus I	4
	MA152 Calculus II	4
	MA171 Discrete Math	3
	MA201 Linear Algebra	4
	MA211 Calculus III	3
	MA212 Differential Equations	3
	MA252 Probability and Statistics	3
	MA371 Numerical Analysis MA290 Portfolio I	3
	MA390 Portfolio II	1
	MA490 Portfolio III	1
A		
Ap	plied Mathematics (BS) Electives, minimum grade C-, 6 credits One course numbered MA300 or higher.	2
	MA399 Complex Analysis <b>OR</b>	3
	MA399 Partial Differential Equations	3
	*	,
-	plied Mathematics (BS) Required 400-level course, minimum grade C-, credits	
3 (	MA411 Real Analysis	3
	marri near mayoro	J

Applied Mathematics (BS) Cognates, minimum grade C-, 6 credits	
CS132 Programming II	3
EG452 Applied Programming	3
MATHEMATICS (BA) DEGREE REQUIREMENTS	
• Fulfill all General Degree Requirements – see above	
• Fulfill all General Education Requirements – see page 11, 44 credits	
• Fulfill all Mathematics (BA) Major Requirements – see below	
Mathematics Core (all required), minimum grade C-, 18 credits	
MA151 Calculus I	4
MA152 Calculus II	4
MA201 Linear Algebra	4
MA211 Calculus III	3
MA290 Portfolio I	1
MA390 Portfolio II	1
MA490 Portfolio III	1
Math Elective 300+ Level (choose one), minimum grade C-, 3 credits	
Additional Math Electives, minimum grade C-, 9 credits	
Three courses numbered MA122 or higher.	
MATHEMATICS MINOR, minimum grade C-, 15 credits	
MA151 Calculus I	4
MA152 Calculus II	4
MA201 Linear Algebra	4
MA211 Calculus III	3

# MATH COURSE DESCRIPTIONS

MA098 Fundamentals of Mathematics (3 cr.) Offers a review of basic mathematical operations concentrating on fractions, decimals and percents. Emphasizes pre-algebra topics such as variable expressions, introduction to equations, and translating sentences into equations and covers application of these principles. This course does not count toward graduation credits. Offered fall and spring.

MA099 Math for College (3 cr.) A conceptual approach to the math assumed as a prerequisite for college math and science courses. Stresses mastery of basic algebra skills with stress on equation solving, fractions, and application problems. This course does not count toward graduation credits. Offered fall and spring.

**MA101 Math Explorations (3 cr.)** Introduces the structure and scope of mathematics. Discusses a variety of topics in mathematics to acquaint the student with what a mathematician is and does and exposes the student to different branches and tools of mathematics. *Prerequisite: MA099 or equivalent. Offered annually.* 

**MA105** Mathematics for Elementary Teachers (3 cr.) An introduction to the foundational concepts in mathematics with a view toward preparing teachers. Topics covered include patterns, representation and proofs; set theory; understanding algebraic operations; basic number theory; geometry, shapes, transformations and measurement. *Prerequisites: High school mathematics. The student must be an education major.* 

MA107 Contemporary Math for Business (3 cr.) This course will cover mathematics as it is used and implemented in business to affect management decision making. Topics include a review of fundamental mathematical operations and concepts, implementation of algebra, the use and application of percentages and introductory graphs and statistics. Logic and problem-solving skills will be covered throughout the course material. The purpose of this class is not to turn you into mathematicians, but rather to give you the key skills you need to survive in today's business world. The use of a calculator may be helpful but is not required.

**MA109** Finite Mathematics (3 cr.) A problem-solving and mathematical literacy course that helps students understand the power and usefulness of mathematics in various settings. Topics usually include functions, linear equations, linear systems, linear programming, sets, elementary probability, statistics, and financial mathematics. *Prerequisite: MA099 or equivalent. Offered fall and spring.* 

**MA111 College Algebra (3 cr.)** Studies basic college algebra, including solving equations and inequalities, solving systems of equations and inequalities, and working with linear, quadratic, and polynomial functions. *Prerequisite: MA099 or two years of high school college preparatory mathematics. Offered fall.* 

MA118 Introduction to Statistics (3 cr.) An introduction to the basic methods of statistical inference, with applications to a variety of disciplines. Topics studied will include hypothesis testing (z and t tests), confidence intervals, regression and correlation, and chi-square tests of independence. Note: Not for credit if credit is received for MA252. Prerequisite: MA109 or MA111 or equivalent. Offered annually.

**MA122 Trigonometry (3 cr.)** Studies the trigonometric and inverse trigonometric functions, including the application of trigonometry to triangles, and the application of algebra to trigonometry, such as solving equations and verifying identities. Also includes a beginning look at vectors and polar coordinates. *Prerequisite: MA111 or equivalent. Offered spring.* 

MA151 Calculus I (4 cr.) Studies calculus of one variable covering limits, differential calculus, integral calculus, applications, and the Fundamental Theorem of Calculus. *Prerequisite: MA122 or three years of college preparatory mathematics including trigonometry. Offered fall.* 

**MA152 Calculus II (4 cr.)** Second course in calculus of one variable; transcendental functions, techniques of integration, improper integrals, polar coordinates, infinite series, and Taylor series. *Prerequisite: MA151. Offered spring.* 

**MA171 Introduction to Discrete Mathematics (3 cr.)** Covers propositional and predicate calculus, techniques of proof (including direct, indirect and inductive), sets, functions, combinatorics, relations, recurrence equations, graphs and trees. *Prerequisites: MA122 or equivalent and either sophomore standing or permission of the instructor. Offered fall.* 

MA199/MA299/MA399/MA499 Topics in Math (cr. var) Study of a topic in mathematics of mutual interest to students and instructor. Topics in the recent past have included discrete dynamical systems, cryptography, real variables, numerical methods and optimization. Prerequisite: Permission of the instructor. Offered varying years.

MA201 Linear Algebra (4 cr.) Examines sets, systems of linear equations, matrices, vector spaces, subspaces, linear operators and their representations, eigenvalues and eigenvectors, and inner product spaces. Prerequisite: MA152 or MA171. Offered spring.

MA211 Calculus III (3 cr.) Covers cylindrical and spherical coordinate systems, vectors in Euclidean space, multidimensional functions, partial differentiation, multiple integration, and line integrals. *Prerequisite: MA152. Offered fall.* 

MA212 Differential Equations (3 cr.) Covers techniques and theory of ordinary differential equations, first order techniques, linear differential equations, series solutions, systems of differential equations, and Laplace Transforms. *Prerequisite: MA211, MA201 or permission of the program. Offered spring.* 

MA252 Probability and Statistics (3 cr.) A calculus-based introduction to probability and statistics. Topics studied will include basic probability, random variables, probability distribution and density functions, hypothesis testing, confidence intervals, regression and correlation, and chi-square tests of independence. Students will study both the application and the underlying mathematical structure for these topics. *Prerequisite: MA152. Offered alternate years*.

**MA281 Topics in Geometry (3 cr.)** Includes topics from among classic plane geometry, non-Euclidean geometry, transformation geometry, and projective geometry. Applies linear perspective in art, symmetries of wallpaper design, cartography, and others of student interest. The format is participatory, with a final paper or project expected. *Prerequisite: Permission of the instructor. Offered varying years.* 

MA290 Portfolio I (1cr.) This course guides students through the process of developing a portfolio that demonstrates their foundational competencies in mathematics subject matter knowledge, writing, and presenting. Emphasis is placed on collecting and documenting artifacts for each competency and reflecting on their accomplishments, areas for improvement, and future plans. Further this class will serve as an introduction to the mathematical typesetting language LaTeX. This is the first of a three-course sequence. *Prerequisite MA171. Offered spring.* 

MA331 Topics in Modern Algebra (4 cr.) Introduces algebraic systems, number theory, isomorphism, homomorphism, groups and rings. Note: Not for credit if credit is received for MA421. Prerequisite: MA201 or permission of the instructor. Offered alternate years.

MA371 Numerical Analysis (3cr.) This course introduces and analyzes algorithms for solutions of advanced problems in the mathematical sciences. Topics include: Newton's Method, iterative methods for non-linear equations, matrix systems, eigen-value problems and numerical integration. *Prerequisites: MA201, MA212. Offered alternate years.* 

MA390 Portfolio II (1cr.) This course continues to guide students through the process of developing a portfolio that demonstrates their foundational competencies in mathematics subject matter knowledge, writing, and presenting. Emphasis is placed on collecting and documenting artifacts for each competency and reflecting on their accomplishments, areas for improvement, and future plans. Mathematical reading will be the primary emphasis of this class. Further there will be two essays: one on the cultural universality of mathematics or a mathematician from outside the student's culture, the second on a historical topic of the student's choice. This is the second of a three-course sequence. *Prerequisite MA290. Offered spring.* 

MA411 Real Analysis (3 cr.) Provides the theoretical underpinnings of calculus and the advanced study of functions. Emphasis is on the precise definitions and rigorous proof. Topics may include the real numbers and completeness, continuity and differentiability, the Riemann integral, the fundamental theorem of calculus, inverse function and implicit function theorems, and limits and convergence. *Prerequisites: MA171 and MA211*.

MA421 Modern Algebra I (4 cr.) Introduces algebraic systems, number systems, number theory, isomorphism, homomorphism, groups, and rings. A final project is to be completed and presented. Note: Not for credit if credit is received for MA331. *Prerequisites: MA201 and permission of the instructor. Offered alternate years.* 

MA490 Portfolio III (1cr.) This course culminates the students' process of developing a portfolio that demonstrates their foundational competencies in mathematics subject matter knowledge, writing, and presenting. Emphasis is placed on collecting and documenting artifacts for each competency and reflecting on their accomplishments, areas for improvement, and future plans. Mathematical writing will be the primary emphasis of this class. The class will involve the writing of two papers: first an essay on the relation between mathematics and faith, second either a research paper of original research or an expository paper on an approved topic of the student's choosing. Students will then give a presentation on their research paper. Prerequisite MA390. Offered spring.

# **Physics**

Division of Science & Technology

Dr. Jill A. Macko, Associate Professor

Dr. John Free, Professor Emeritus

# MISSION:

The mission of the Computational Sciences Program is to commit to teaching excellence, innovative undergraduate research and the personal and intellectual growth of our students in a diverse and collaborative Christian academic community. We endeavor to provide our students with the tools and resources required to be successful Christian scientists and engineers well prepared to pursue graduate studies and to fit the evolving challenges of the global corporate world.

# **GOALS:**

- To prepare our students for professional employment and/or graduate studies in physics or engineering.
- 2. To develop worldly citizens that can project to their environments, a healthy mix of our core beliefs that "the best in education can meaningfully coexist with the best in Christian faith."
- 3. To prepare students to seamlessly apply their comprehensive preparation in general education to problems in the engineering and physics disciplines.
- 4. To prepare students to use their comprehensive preparation in general education to develop and enhance their intellectual and artistic curiosity.
- 5. To prepare students to use their general and technical preparation towards demonstrating their writing, speaking and reading proficiency.
- 6. To prepare students to use their general education and technical preparation to live their lives as scientists and engineers inspired and guided by their Christian faith.
- 7. To prepare students to use their general education and technical preparation to develop awareness and sensitivity to cultural diversity.

# **DEGREES, MAJORS AND TRACKS OFFERED**

Bachelor of Science: Physics; Applied Physics

**Bachelor of Arts: Physics** 

Minor: Physics

# **GENERAL DEGREE REQUIREMENTS**

- Fulfill all General Education Requirements see below
- Earn minimum of 123 Graduation Credits
- Pass Program Portfolio Assessment
- Meet minimum Cumulative GPA of 2.0

# GENERAL EDUCATION REQUIREMENTS – 45 credits required

See page 11 for course options.

Cultural Perspectives Requirements, 32 credits Physical Education Skills, 2 credits

Required Lab Science: CH103/CH103L ( Required Math: MA151 Calculus I, 4 cre Social Science, 3 credits	
Physics Core (all required), minimum PY201/PY201L General Physics I w/ Lab PY202/PY202L General Physics II w/Lab PY302/PY302L Modern Physics w/Lab PY312/PY312L Classical Mechanics w/La PY322/PY322L Electricity and Magnetist PY399 Introduction to Research PY499 Senior Research in Physics	5 5 4 ab 4
Math Cognates (all required), minimum MA152 Calculus II MA211 Calculus III Chemistry Cognate, minimum grade C-	4 3
CH104/CH104L General Chemistry II w/	
PHYSICS (BS) REQUIREMENTS  Fulfill all General Degree Requirements  Fulfill all General Education Requirement  Fulfill all Physics Core Requirements – s  Fulfill all Math Cognates – see above  Fulfill Chemistry Cognate – see above  Fulfill Physics (BS) Electives – see below  Fulfill all Physics (BS) Math Cognates –  Fulfill Technical Cognate – see below	nts – see page 11, 45 credits see above
<b>Physics (BS) Electives, minimum grade</b> Any two additional PY courses 300 level	
Physics (BS) Math Cognates (all requir MA201 Linear Algebra MA212 Differential Equations	3
<b>Technical Cognate, minimum grade C-,</b> Any EG or CS course	3 credits
<ul> <li>APPLIED PHYSICS (BS) REQUIREMENT</li> <li>Fulfill all General Degree Requirements</li> <li>Fulfill all General Education Requirement</li> <li>Fulfill all Physics Core Requirements – s</li> <li>Fulfill all Math Cognates – see above</li> <li>Fulfill Chemistry Cognate – see above</li> <li>Fulfill Applied Physics (BS) Elective – se</li> <li>Fulfill all Physics (BS) Math Cognates –</li> </ul>	– see above  ats – see page 11, 45 credits  see above  ee below

Fulfill Engineering Cognate – see below Fulfill Programming Cognate – see below Fulfill Electronics Cognate – see below

Applied Physics (BS) Elective, minimum grade C-, 3 credits Any additional PY course 300 level or above	3
Physics (BS) Math Cognates (all required), minimum grade C-, 7 credits MA201 Linear Algebra MA212 Differential Equations	4 3
Engineering Cognate, minimum grade C-, 4 credits EG161/EG161L Introduction to Robotics w/Lab	4
Programming Cognate (choose 1), minimum grade C-, 3 credits CS131 Computer Programming I EG452 Applied Programming	3
Electronics Cognate (choose 1), minimum grade C-, 4 credits EG272/EG272L Circuit Theory I w/Lab EG232/EG232L Digital Logic w/Lab	44
<ul> <li>PHYSICS (BA) REQUIREMENTS</li> <li>Fulfill all General Degree Requirements – see above</li> <li>Fulfill all General Education Requirements – see page 11, 45 credits</li> <li>Fulfill all Physics Core Requirements – see above</li> <li>Fulfill all Math Cognates – see above</li> <li>Fulfill Chemistry Cognate – see above</li> <li>Fulfill Technical Cognate – see below</li> </ul>	
Technical Cognate, minimum grade C-, 3 credits Any EG or CS course	3
PHYSICS MINOR, minimum grade C-, 18 credits Students may choose 18 credits in any PY courses 200 level or above.	
PHYSICS COURSE DESCRIPTIONS	
<b>PY101 Astronomy (3 cr.)</b> Surveys the science of astronomy. Introduces the study of the universe at all levels, starting with the earth and working outward to the solar system, stars, and galaxies. Cosmology and the potential for extraterrestrial life receive special emphases and a brief treatment of the relevant theological issues is included. Laborator required, but course may be taken without lab if requirement is already fulfilled.	у
<b>PY101L Astronomy Lab (1 cr.)</b> Laboratory explorations of selected topics covered in PY10 <i>Co-requisite: PY101.</i>	)1.
<b>PY102 Physical Science (3 cr.)</b> A survey of selected topics within the domain of Physical Science. Topics covered include physics (primarily mechanics, waves, electricity, and magnetism), inorganic chemistry (atomic, nuclear, and chemical bonding), earth science	

(rocks, minerals, and geological processes), and astronomy (cosmology, stellar evolution, and relativity). Designed especially for education majors but open to all majors. Laboratory

required, but course may be taken without lab if requirement is already fulfilled.

Prerequisite: High school or college algebra.

**PY102L Physical Science Lab (1 cr.)** Laboratory explorations of selected topics covered in PY102. Emphasis is on experiments that can be readily duplicated in middle to high school physical science courses, as well as the application of scientific methodology. *Co-requisite: PY102.* 

**PY201 General Physics I (4 cr.)** Studies basic physics for students of science and/or mathematics and for those preparing for engineering, medicine, or subsequent course work in Physics. Covers Newtonian mechanics, mechanical waves, and thermodynamics. Laboratory required, but course may be taken without lab if requirement is already fulfilled. *Prerequisite: MA151 or concurrent enrollment.* 

**PY201L General Physics I Lab (1 cr.)** Laboratory explorations of the topics covered in PY201. Emphasizes experimental methodology and reporting. *Co-requisite: PY201*.

PY202 General Physics II (4 cr.) Studies basic physics for students of science and mathematics and for those preparing for engineering, medicine, or subsequent course work in Physics. Covers electricity and magnetism, optical phenomena, and an introduction to topics in modern (post-I900) physics. Laboratory required, but course may be taken without lab if requirement is already fulfilled. *Prerequisites: MA151 or concurrent enrollment and PY201*.

**PY202L General Physics II Lab (1 cr.)** Laboratory explorations of the topics covered in PY202. Emphasizes experimental methodology and reporting. *Co-requisite: PY202.* 

**PY302 Modern Physics (3 cr.)** Introduces the physics of the twentieth century. Analyzes the crisis that developed in classical physics and gave rise to the revolutionary changes in the early twentieth century. Develops relativity and quantum theory with applications to atomic systems. Laboratory required, but course may be taken without lab if requirement is already fulfilled. *Prerequisites: PY202 and MA152.* 

**PY302L Modern Physics Lab (1 cr.)** Laboratory explorations of topics covered in PY301. Emphasizes experimental methodology and reporting. *Co-requisite: PY301.* 

**PY312 Classical Mechanics (3 cr.)** Applies the principles of statics and dynamics begun in General Physics. Newton's Laws are applied in a wide variety of contexts. Laboratory required, but course may be taken without lab if requirement is already fulfilled. *Prerequisites: PY201 and MA151*.

**PY312L Classical Mechanics Lab (1 cr.)** Laboratory explorations of the topics covered in PY312. Emphasizes experimental methodology and reporting. *Co-requisite: PY312.* 

**PY322 Electricity and Magnetism (3 cr.)** Develops electro- and magnetostatics by the use of vector methods. Studies circuit analysis employing Kirchhoff's Laws. Gauss' law, Faraday's law of induction, and Ampere's law are all treated in integral and differential forms. Studies electromagnetic properties of matter. Laboratory required, but course may be taken without lab if requirement is already fulfilled. *Prerequisites: PY202 and MA211*.

**PY322L Electricity and Magnetism Lab (1 cr.)** Laboratory explorations of the topics covered in PY322. Emphasizes experimental methodology and reporting. *Co-requisite: PY322*.

**PY399 Introduction to Research (3 cr.)** Begins the process of teaching students the nature of scientific research, finding and reading scientific literature, formatting of research papers, and improving their scientific communication skills. Students will establish a foundation for using the scientific method to design experiments and develop an independent research project. This course will also guide students in developing a portfolio that demonstrates their competencies in Physics. *Prerequisite: PY201 and PY202*.

**PY400 Special Topics in Physics (3 cr.)** Selected topics in Physics. This course may be taken more than once on different topics. *Prerequisites: PY302, PY312 or PY322 and Permission of instructor.* 

**PY412 Statistical Thermodynamics (3 cr.)** Studies and applies thermodynamics. Devotes main topics to kinetic theory of gases and statistical mechanics. *Prerequisites: PY301 or CH402 and MA212.* 

**PY433 Quantum Mechanics (3 cr.)** Applies introductory quantum mechanics to molecular binding, properties of solids, and nuclear physics. *Prerequisites: PY301, MA201, MA212. Offered on a variable schedule.* 

**PY471 Intermediate Mechanics (3 cr.)** Derives Lagrange's and Hamilton's equations in order to treat dynamical systems more generally. Special emphasis is on those aspects of classical mechanics which are prerequisites of quantum mechanics. *Prerequisites: PY312, MA201, MA212.* 

**PY472 Electromagnetic Theory (3 cr.)** Derives and applies Maxwell's equations. Solves boundary-value problems. Studies electromagnetic waves with applications to the laws of optics. *Prerequisites: PY312, PY322, MA201, MA212*.

PY488/PY388 Physics Internship (cr. var) Varying levels of internship opportunities for sophomores, juniors and seniors. Course number is based on level of responsibility of the internship. May be repeated for credit.

**PY499 Senior Research in Physics (3 cr.)** Requires participation in a research project related to faculty research interest. Introduces current literature and research in experimental physics. A written report and oral summary before two or more faculty members is required. *Prerequisites: PY399 and permission of instructor.* 

# Preparatory Courses of Study

Students preparing for graduate study and those entering careers in medicine, law, physical therapy, occupational therapy, or pharmacy may take a preparatory course of study in conjunction with their major. These preparatory programs advance particular vocational goals but are not majors in themselves.

### PRE-LAW

Thomas Harrison, Esq. Director Sean Coleman, Esq. Adjunct Professor Marianna Krejci-Papa, PhD, Associate Professor

Nicholas Pruitt, PhD, Associate Professor

The American Bar Association and the Law School Admission Council do not require or encourage undergraduate majors in law. At the undergraduate level, selection of a majors is less important than the acquisition of skills for precise writing, clear thinking and logical reasoning. Students heading for law schools are advised to select academically challenging majors that require extensive, reading, writing, and reasoning. Programs at ENC that have successfully placed students in law schools are History, Psychology, and Business but almost any major, if pursued with diligence, would prepare a student for law school.

The Pre-Law Program at Eastern Nazarene College emphasizes a strong liberal arts perspective and stresses academic skills that will challenge students in the quest for new knowledge and professional growth. ENC has an outstanding record of placing graduates in prestigious law schools.

# PRE-LAW MINOR, minimum grade C-, 21 credits

Students intending to enter law school or those seeking to enhance their liberal arts

education with a deeper understanding of the law are encouraged to minor in Pre-Law. The Pre-Law minor consists of five core courses and two electives.

Descriptions for these courses appear in their respective program listings.

# Pre-Law Core (all required), minimum grade C-, 15 credits

BA411 Business Law

CO106 Speech Communication

GO210 American Political Institutions (prerequisite for GO452)

GO452 Seminar in Law and Society (prerequisite: GO210)

GO455 Seminar in Christianity and the Law

# Pre-Law Electives (Choose 2), minimum grade C-, 6 credits

AC419 Federal Tax I

**BA314 Business Ethics** 

CO210 Applied Linguistics (prerequisite: CP100)

CO410 Persuasion and Argumentation (prerequisite: CP100 or CO106)

CJ260 Conflict Resolution

GO499 Leadership in the Public Square (prerequisite: GO210)

PH331 Critical Thinking and Logic

PH381 Ancient and Medieval Philosophy (prerequisite: CP290)

### HEALTH PROFESSIONS

Dr. Robert Logan, Health Professions Coordinator

Dr. Matthew Waterman, Advisor

Since graduate schools differ in the details of their requirements, students should inquire as early as possible about the requirements of the schools of their choice so that their programs can be planned accurately. The Health Professions Committee has been established to advise and counsel the student and is especially helpful in the actual process of applying to graduate programs in the health professions. For medical school, the student must apply and be approved by the committee in order to use its services. The Health Professions Committee application process typically begins in the fall semester of Sophomore year. Please contact the Health Professions Coordinator for application information and procedures.

# Pre-Medicine Required Classes, minimum grade B

BI103 Introduction to Cell Biology and Genetics

BI105 Introduction to Plants and Animals

BI106 Introduction to Research Methods 1 – Discovery

BI107 Introduction to Research Methods 2 – Genomics

**BI212 Genetics** 

CH103/CH103L General Chemistry I w/Lab

CH104/CH104L General Chemistry II w/Lab

CH321/CH321L Organic Chemistry I w/Lab

CH491 Biochemistry Lab

CH492 Biochemistry I

CP100 Critical Writing and Speaking

CP245 Literature and Culture

MA151 Calculus I

PS110 Introduction to Psychology

PY201/PY201L General Physics I w/Lab

PY202/PY202L General Physics II w/Lab

SO110 Introduction to Sociology

# Recommended Courses, minimum grade B

BI104/BI104L Introduction to Ecology and Diversity w/Lab

BI393 Cell Biology

CH322/CH322L Organic Chemistry II w/Lab

BI395 Immunology

CH493 Biochemistry II

MA152 Calculus II

MA118 Introduction to Statistics

# Pre-Nursing Required Classes, minimum grade B

BI103 Introduction to Cell Biology and Genetics

BI104/BI104L Introduction to Ecology and Diversity w/Lab

BI105 Introduction to Plants and Animals

BI106 Introduction to Research Methods 1 – Discovery

BI107 Introduction to Research Methods 2 – Genomics

BI203/BI203L Musculoskeletal Anatomy and Physiology w/Lab

BI204/BI204L Systemic Anatomy and Physiology w/Lab

BI352/BI352L Microbiology w/Lab

CH101/CH101L Introduction to Chemistry w/Lab

CH102/CH102L Chemistry of Life w/Lab

CP100 Critical Writing and Speaking

MA118 Introduction to Statistics

PE222 First Aid and CPR

PS110 Introduction to Psychology

PS240 Lifespan Development

SO110 Introduction to Sociology

Some nursing schools also require a course in Nutrition.

# Affiliation agreement between Eastern Nazarene College and Regis College: Accelerated 16-month BS in Nursing for Non-Nursing Graduates.

Eastern Nazarene College maintains an articulation agreement with Regis College. Students who complete a BS from Eastern Nazarene College and fulfill the requirements stated in the agreement, may use a reserved spot in the accelerated program after graduation to complete their education in Nursing. For more information on requirements please contact the Health Professions Coordinator as soon as possible.

# Pre-Physical Therapy Required Classes, minimum grade B

BI103 Introduction to Cell Biology and Genetics

BI104/BI104L Introduction to Ecology and Diversity w/Lab

BI105 Introduction to Plants and Animals

BI106 Introduction to Research Methods 1 – Discovery

BI107 Introduction to Research Methods 2 – Genomics

BI203/BI203L Musculoskeletal Anatomy and Physiology w/Lab

BI204/BI204L Systemic Anatomy and Physiology w/Lab

One additional Biology elective above BI200

CH101/CH101L Introduction to Chemistry w/Lab OR

CH103/CH103L General Chemistry I w/Lab

CH102/CH102L Chemistry of Life w/Lab OR

CH104/CH104L General Chemistry II w/Lab

PS110 Introduction to Psychology

PS240 Lifespan Development

PS372 Abnormal Psychology

MA118 Introduction to Statistics

MA151 Calculus I

PY201/PY201L General Physics I w/Lab

PY202/PY202L General Physics II w/Lab

Some physical therapy programs also require a course in kinesiology, exercise physiology, business management and/or sociology.

# Pre-Occupational Therapy Required Classes, minimum grade B

Students pursuing Occupational Therapy will need all of the courses for physical therapy, as well as PS331 Theories of Personality.

# PRE-PHARMACY PROGRAM

The pre-pharmacy experience at ENC prepares you to enter into many pharmacy programs across the country as well as graduate school in pharmacology and medicinal chemistry. With the sophistication and number of today's medicines, it is even more important that pharmacists be intelligent, talented, and dedicated people. The necessary education can be obtained with the combination of ENC and your choice of pharmacy schools. Sound course work in the sciences and personal development, which leads to high ethical standards and a deep dedication to helping people, are stressed at ENC. In pharmacy school, all the necessary specific training in pharmacy is provided by experienced professionals. As a prepharmacy student at ENC, you will always have the opportunity to switch to another field of study in the sciences without sacrificing completed college course work.

# Pre-Pharmacy Transfer Program

All course work required for entrance into pharmacy school is completed in this sequence. A student enrolled in this program of study would generally apply for transfer into pharmacy school at the completion of these required courses, which generally takes 2 to 3 years depending on the student's high school preparation. On transferring from ENC, the student would be an alumnae of ENC; however, the student would not receive an academic degree from Eastern Nazarene College.

Typically, for successful transfer, the student needs to have a minimum 3.0 GPA and satisfactory scores on the Pharmacy College Admission Test (PCAT).

# Pre-Pharmacy Required Classes, minimum grade B

BI103 Introduction to Cellular Biology and Genetics

BI105 Introduction to Plants and Animals

BI106 Introduction to Research Methods 1 – Discovery

BI107 Introduction to Research Methods 2 – Genomics

CH103/CH103L General Chemistry I w/Lab

CH104/CH104L General Chemistry II w/Lab

CH321/CH321L Organic Chemistry I w/Lab

CH322/CH322L Organic Chemistry II w/Lab

PY201/PY201L General Physics I w/Lab

PY202/PY202L General Physics II w/Lab

MA151 Calculus I

MA152 Calculus II

MA118 Introduction to Statistics

PS110 Introduction to Psychology

BA231 Principles of Microeconomics

**CP100 Critical Writing** 

CP195 The West in the World since 1500

CP245 Literature and Culture

CP290 East Meets West: Western Philosophy and Globalization

# **Suggested Electives**

SO110 Introduction to Sociology

SO212 Human Diversity

# PRE-PHARMACY DUAL DEGREE PROGRAM

For students with a strong interest in a Christian liberal arts education and a career in pharmacy, ENC offers a sequence where a student may earn a Bachelor of Science degree in Chemistry from Eastern Nazarene College leading to a Doctor of Pharmacy degree (PharmD) upon transfer to Pharmacy School. The first three years of study for the BS degree in Chemistry are performed at Eastern Nazarene College. Students will receive their degree from ENC after successful completion of the first year of study in the PharmD program. The dual degree program typically requires one year more to complete than a regular entry level six-year PharmD, however, the dual degree offers greater flexibility in career options.

# Requirements

- Complete the course of study for a BS major in Chemistry. The specific course work, taken both at ENC and at pharmacy school, must be approved by the Chemistry Department in accordance with curriculum guidelines.
- Complete the Liberal Arts General Education Core requirements, with the exception of Living Issues.
- Of the minimum 123 credits required for graduation, 106 academic credits must be earned at ENC
- Grades from the pharmacy school must be submitted to the Eastern Nazarene College Registrar prior to graduation.

- Maintain a grade point average of at least 3.0 in science and mathematics courses.
- Maintain a cumulative grade point average of at least 2.8.

# **Psychology**

Division of Church, Society & Humanity Dr. Brian Massey, Professor Dr. Janet Lanham, Professor Emeritus Dr. Victoria Schow, Associate Professor

### MISSION:

To prepare students for graduate school in the field, and/or employment in fields where a bachelor's degree in Psychology is beneficial, in a distinctively Christian context that helps students integrate their faith and their discipline in their personal and professional development.

# **GOALS:**

- 1. A student will be able to reflect upon and integrate Christian principles with the tenets of psychology.
- A student will be exposed to a broad background in psychological theory and research methods.
- 3. A student will prepare for further professional development, graduate training, and/or employment in the field.
- A student will understand the complexities of development and dynamics of human behavior.
- A student will deepen self-awareness, appreciation of diversity, and acceptance of others.
- 6. A student will enhance their oral and written communication skills by incorporating effective listening, constructive interpersonal communication, use of the American Psychology Association (APA) writing style, and other skills conducive to meaningful communication.
- A student will engage in fieldwork that provides an opportunity to integrate theory with practice.

# DEGREES, MAJORS AND TRACKS OFFERED

Bachelor of Science: Psychology – Clinical and Research

Bachelor of Arts: Psychology - Social Relations; Psychology - Child and Adolescent

Development

**Double Major:** Crime, Law and Justice/Psychology (see Crime, Law and Justice)

Minor: Psychology

# GENERAL DEGREE REQUIREMENTS

- Fulfill all General Education Requirements
- Earn minimum of 123 Graduation Credits
- Pass Program Portfolio Assessment
- Meet minimum Cumulative GPA of 2.0

	NERAL EDUCATION REQUIREMENTS – 44 credits required  page 11 for course options. Cultural Perspectives Requirements, 32 credits Physical Education Skills, 2 credits Lab Science, 4 credits Required Math: PS251 Statistics for Social Sciences, minimum grade C-, 3 credits	
	Social Science, 3 credits	
PS' •	Fulfill all General Education Requirements – see above Fulfill all General Education Requirements – see page 11, 44 credits Fulfill all Psychology Social Relations Major Requirements – see below	
Soc	cial Relations Major Requirements (all required),	
mi	nimum grade C-, 27 credits  PS110 Introduction to Psychology PS240 Lifespan Development PS313 Social Psychology PS314 Group Psychology PS331 Theories of Personality PS351 Methods of Social Research PS352 Junior Psychology Seminar PS372 Abnormal Psychology PS430 Field Experience PS453 Senior Psychology Seminar	3 3 3 3 1.5 3 1.5
Psy	Any 3 credit PS course	
Soc	cial Relations Cognate SO110 Introduction to Sociology	3
PS' •	YCHOLOGY – CHILD AND ADOLESCENT TRACK (BA) REQUIREMENTS Fulfill all General Degree Requirements – see above Fulfill all General Education Requirements – see page 11, 44 credits Fulfill all Psychology Child and Adolescent Development Major Requirements – see below	
Ch	ild and Adolescent Major Requirements (all required),	
mi	nimum grade C-, 30 credits PS110 Introduction to Psychology	2
	PS240 Lifespan Development	3
	PS313 Social Psychology	3
	PS331 Theories of Personality	3
	PS342 Child Development	3

3

3

PS343 Adolescent Development PS351 Methods of Social Research

PS352 Junior Psychology Seminar	1.5
PS372 Abnormal Psychology	3
PS430 Field Experience	3
PS453 Senior Psychology Seminar	1.5

# Psychology Elective (choose one), minimum grade C-, 3 credits

Any 3 credit PS course

# PSYCHOLOGY - CLINICAL AND RESEARCH TRACK (BS) REQUIREMENTS

- Fulfill all General Degree Requirements see above
- Fulfill all General Education Requirements see page 11, 44 credits
- Lab science recommended: BI101 or BI110
- Fulfill all Psychology Clinical Research Major Requirements see below

# Clinical Research Major Requirements (all required), minimum grade C-, 38 credits

PS110 Introduction to Psychology	3
PS240 Lifespan Development	3
PS313 Social Psychology	3
PS331 Theories of Personality	3
PS351 Methods of Social Research	3
PS352 Junior Psychology Seminar	1.5
PS353 Psychology of Learning	4
PS372 Abnormal Psychology	3
PS392 Counseling Psychology	3
PS430 Field Experience	3
PS432 Physiological Psychology	3
PS450a Advanced Research Methods	3
PS450b Advanced Research Seminar	1
PS453 Senior Psychology Seminar	1.5

# Clinical and Research Cognate SO451 Quantitative Research and Data

SO451 Quantitative Research and Data 3

# PSYCHOLOGY MINOR, minimum grade C-, 15 credits

PS110 Introduction to Psychology plus any four additional 3 credit Psychology courses.

# PSYCHOLOGY COURSE DESCRIPTIONS

**PS110** Introduction to Psychology (3 cr.) A survey course which discusses the main subfields of psychology as the science of behavior and mental process. Gives attention to history, personalities, and past and current research findings of the field and how they are applied to everyday life. Offered fall and spring.

**PS240 Lifespan Development (3 cr.)** Studies human growth and development from a predominantly psychological perspective throughout the life span and research findings and current perspectives on physical, intellectual, personality, and social development from conception to death. *Offered fall and spring.* 

**PS251 Statistics for the Social Sciences (3 cr.)** Introduces descriptive and inferential statistics, emphasizing the understanding of and skills in the processes of organizing,

calculating and interpreting quantitative information. Also serves as a forum for initiating the process for ongoing psychological research. Fulfills Math requirement for Social Science majors. Offered fall and spring.

**PS312/SW312 Marriage and Family Relations (3 cr.)** Explores contemporary marriage and family relations in our changing society. Utilizing a developmental framework, it focuses on the tasks that individuals, couples, and families must accomplish at different points during the family life cycle and the crises with which they may be challenged. Students are introduced to the kinds of skills and support that assist people as they form and maintain the most important relationships. *Cross-listed as SW312. Offered alternate years*.

**PS313/SO313 Social Psychology (3 cr.)** Seeks to understand the nature and causes of individual behavior in social situations, for the purpose of finding ways to improve the quality of life in society. Explores issues such as: social perception and cognition, attitude formation, prejudice and discrimination, interpersonal attraction, altruism, aggression, group behavior, and environmental and organizational psychology. Encourages application to a contemporary issue. *Prerequisite: PS110 or SO110. Cross-listed as SO313. Offered fall.* 

**PS314/SO314 Group Psychology (3 cr.)** Studies group theory and reflective experiencing of group dynamics and processes in a class format that emphasizes participation in different kinds of group activities. Topics include group communication, membership, norms, goals, leadership, problem solving and group evolution. Applications are made to a variety of settings, e.g. business, church, therapy, and education. *Prerequisite: PS313/SO313. Cross-listed as SO314. Offered spring.* 

**PS315/SO315 Urban Experience (3 cr.)** An interdisciplinary approach to understanding the dynamics and challenges of life and ministry in the city. Readings and lectures from varied theoretical perspectives (theological, psychological, sociological, economic, and political) are combined with exposure to various urban ministry models through site visits and field experience. Includes travel and a special course fee to cover travel expenses. *Prerequisite: Sophomore standing. Cross-listed as SO315. Offered alternate years.* 

**PS330 Substance Abuse (3 cr.)** Provides students with an overview of substance abuse from a systems perspective. Explores the major theories of addiction, the physiological and psychological results of substance abuse, commonly used substances and their effects, and the latest treatment developments and research findings.

**PS331 Theories of Personality (3 cr.)** Examines personality structure, dynamics and development with emphasis on major theoretical perspectives and methods of research. Attention is given to the comparative analysis of the major theoretical models. *Prerequisites: PS110, PS240, or permission of instructor. Offered fall.* 

**PS342 Child Development (3 cr.)** Studies child development from birth up to preadolescence. Attention is given to a variety of perspectives – biological, cognitive, emotional and social development. Theories of child development and current research are addressed in order to provide the student with a comprehensive understanding of the nature, challenges and potential in child development. Also considers specific contexts, such as the family, peer relationships, school and community life. *Offered alternate years*.

**PS343 Adolescent Development (3 cr.)** Studies adolescent development from a variety of perspectives – biological, cognitive, emotional and social. Theories of adolescent development and current research are addressed in order to provide the student with a comprehensive understanding of the nature of adolescent development, fundamental changes and contexts as well as challenges and opportunities posed by our current society. Attention is given to the dynamics of family life and the intergenerational interactions. *Offered alternate years*.

**PS351/SO351 Methods of Social Research (3 cr.)** Develops research skills with emphasis on social research as a scientific inquiry and problem-solving tool in explaining human social behavior. Students learn how to formulate problems for research and implement

appropriate research methods. Prerequisite: PS251 or permission of instructor. Cross-listed as SO351. Offered fall and spring.

**PS352 Junior Psychology Seminar (1.5 cr.)** Guides the psychology major in preparing for the senior comprehensive exam in psychology. A secondary purpose is to provide a resource in career planning for students as they move toward specific post-graduation goals of either seeking psychology-related employment or applying for graduate school in psychology. Both individual and group activities are scheduled in order to facilitate the senior comprehensive preparation and career planning. *Prerequisite: Junior standing. Offered spring.* 

**PS353 Psychology of Learning (4 cr.)** An in-depth study of methods and results of psychological research on learning and memory with an emphasis on the basic issues of acquisition and performance in humans and animals. Examines the processes by which people acquire, store and use information. A lab is included. *Prerequisites: PS110, PS240. Offered in alternate years.* 

**PS372 Abnormal Psychology (3 cr.)** Studies psychological disorders with emphasis upon historical, etiological, descriptive, diagnostic, therapeutic, and experimental approaches. *Prerequisites: PS110, PS240. Offered spring.* 

**PS392 Counseling Psychology (3 cr.)** Introduces basic counseling skills such as active and reflective listening. Exposes current models for counseling intervention. Presents the affective behavioral and cognitive paradigms with discussion of their relative strengths and weaknesses. *Prerequisites: PS110, PS240. Offered alternate years.* 

**PS420 Special Topics in Psychology (3 cr.)** Applies to special courses in psychology that are offered by members of the program or visiting scholars.

**PS430 Field Experience (3 cr.)** Supervises a practical experience in a vocation closely related to the student's interest and/or future plans in psychology. Readings, written assignments and group meetings assist the student in reflecting on and integrating the knowledge gained from involvement at an approved placement site. *Prerequisite: Attendance at a pre-placement meeting. Recommended for Junior year. Cross-listed as SO430, CJ430. Offered fall and spring. Offered summer with special permission by the program chair.* 

**PS432 Physiological Psychology (3 cr.)** Introduces physiological structures and functions that are of interest to behavioral science. Emphasizes sensory processes, the central nervous system, higher cognitive functioning, and the neuropsychological perspective of behavioral disorders. *Prerequisites: PS110, PS240. Offered in alternate years.* 

**PS434 Cognitive Psychology (3 cr.)** Describes and evaluates topics dealing with human learning, thinking, reasoning, concept formation, memory and language. Various theoretical approaches are contrasted in light of established and current research in the field. Special emphasis is placed on the process of moving from research to an understanding of basic cognitive principles within class demonstrations of various research methodologies.

**PS450a Advanced Research Methods (3 cr.)** Familiarity with basic research methods and statistics is assumed. Exposes students to current research paradigms in psychology, placing special emphasis on the process of empirically testing theory. Both experimental and non-experimental research methods are examined. A major course requirement is the production of an individual research project proposal that will include designing a study and APA report writing. *Prerequisites: PS251 and PS351. Offered alternate years. Must be followed by PS450b Advanced Research Seminar in order to meet BS requirements.* 

**PS450b Advanced Research Seminar (1 cr.)** This course is taken following Advanced Research Methods, and requires that students carry out the data collection and analysis for their research projects as proposed in the previous course. In addition, students will orally present the results of their study to psychology faculty and peers. *Prerequisites: PS251, PS351, PS450a. Offered alternate years.* 

PS451/SO451 Quantitative Research and Data Analysis (3 cr.) Introduces the concepts and procedures employed in quantitative research in the social sciences. Explores several data analyses (from univariate to multivariate analyses) with the use of the computer (both mini and micro). Utilizes SPSS and practices writing quantitative results in APA format. Prerequisite: PS251. Cross-listed as SO451. Offered alternate years.

**PS453 Senior Psychology Seminar (1.5 cr.)** Guides the psychology major in their preparations for the comprehensive examination in psychology. Continues facilitating the career planning begun in Junior Psychology Seminar, for post graduation goals of either seeking psychology related employment or applying for graduate school in psychology. *Prerequisite: PS352 Junior Psychology Seminar. Offered annually.* 

**PS472 Psychology of Religion (3 cr.)** Examines religious experience, belief, and behavior from a psychological perspective. In a seminar format, students read primary source material to examine the lives and theories of several leaders in the field, research and reflect on selected topics of interest to both psychologists and theologians, and evaluate one's own role as a psychological interpreter of religion. *Prerequisites: PS110 and Sophomore standing. Offered in alternate years.* 

PS199/PS299/PS399/PS499 Research in Psychology (3 cr.) Designed for the advanced Psychology major who desires to do supervised work on a research project. Students, in consultation with a Psychology faculty member, develop goals for the project including literature review, data collection tools and procedures, data analysis and method of presentation. Can be taken for 1–3 credit hours per semester. Students who take PS399 or PS499 for 3 credits may be allowed to substitute this course for PS430. *Prerequisite: Permission of the program chair.* 

# Religion, Biblical Studies, Theology, Intercultural Studies, Philosophy, Worship Arts, and Ministry (Christian, Youth, & Children's)

Division of Church, Society, & Humanity

Dr. William Malas Jr, Professor

Dr. Philip LaFountain, Professor

Dr. Julene Tegerstrand, Associate Professor

Dr. John W. Nielson, Assistant Professor

Dr. David Young, Assistant Professor & Dean of the Chapel

### MISSION:

The Religion & Culture Program seeks to support the mission of Eastern Nazarene College through the careful and faithful preparation of students for all levels of ministry, which includes professional, academic, and as lay members. In addition, we seek to provide academically sound and ecclesiastically faithful religious instruction for all students at ENC through the teaching of General Education courses. All of our efforts are consistent with our commitment to our Wesleyan-Holiness heritage and, specifically, to the Church of the Nazarene.

### **GOALS:**

 Students will demonstrate integrated knowledge of biblical studies, Christian theology, philosophy, church history, and practical theology within the Wesleyan-Holiness tradition.

- Students will be able to identify and analyze theological and practical issues that arise within the church and society and will develop theologically and biblically sound responses to them.
- Students will demonstrate an appreciation of the various forms of Christian worship expressed through art, music, and liturgy.
- Students will demonstrate the ability to communicate and collaborate effectively regarding theology and faithful Christian practice in the church and society.
- 5. Students will develop and demonstrate a personal commitment to faith formation, Christian ethics, and participation in the life of the church.
- Students will develop the awareness of global Christianity and develop the ability to engage effectively in cross-cultural ministry.

# DEGREES, MAJORS AND TRACKS OFFERED

Bachelor of Arts: Religion (General Track); Religion (Biblical Literature Track); Religion (Theology & Philosophy Track); Religion (Double Major Track); Intercultural Studies (General Track); Intercultural Studies (Double Major Track); Christian Ministry (Ordination Track); Youth Ministry (Ordination Track); Children's Ministry (Ordination Track); Worship Arts

Minors: Biblical Languages; Biblical Literature; Children's Ministry; Christian Ministry; Intercultural Studies; Philosophy; Religion; Youth Ministry; Worship Arts

# **GENERAL DEGREE REQUIREMENTS**

- Fulfill all General Education Requirements see below
- Earn minimum Graduation Credits 123
- Pass Program Portfolio Assessment
- Meet minimum Cumulative GPA of 2.0

# GENERAL EDUCATION REQUIREMENTS – 44 credits required

See page 11 for course options.

Cultural Perspectives Requirements, 32 credits Physical Education Skills, 2 credits Lab Science and Math or Science, 7 credits Social Science, 3 credits

# RELIGION - GENERAL TRACK (BA) REQUIREMENTS

- Fulfill all General Degree Requirements see above
- Fulfill all General Education Requirements see page 11, 44 credits
- Fulfill all Requirements listed below, 47 credits

# Religion & Culture Core Requirements, minimum grade C-, 23 credits

3
1
3
1
3
3
3

TH495 Senior Seminar Upper Division New Testament Elective (choose one) BL327 Pauline Epistles BL450 Synoptic Gospels GK301 Reading Koine Greek	3
Bible & Theology Core Requirements, minimum grade C-, 12 credits  BL210 Biblical History and Literature  TH310 Survey of the History of Christianity  TH443 Christian Theology I  Upper Division Old Testament Elective (choose one)  BL313 Interpreting the Psalms  BL319 Hebrew Prophets  BL420 Pentateuch  HE301 Reading Biblical Hebrew	3 3 3 3
Language Requirement (choose one set of two), minimum grade C-, 6 cr GK101 Elementary New Testament Greek I and GK102 Elementary New Testament Greek II OR HE201 Elementary Hebrew I and	<b>edits</b> 3 3
HE202 Elementary Hebrew II  OR  Students may petition to allow for some other 6 credits of language study to meet this requirement	3
Other Requirements, minimum grade C-, 6 credits SF110 Introduction to Spiritual Formation History of Philosophy Elective (choose one) PH381 Ancient and Medieval Philosophy PH382 Modern and Postmodern Philosophy	3
<ul> <li>RELIGION – BIBLICAL LITERATURE TRACK (BA) REQUIREMENTS</li> <li>Fulfill all General Degree Requirements – see above</li> <li>Fulfill all General Education Requirements – see page 11, 44 credits</li> <li>Fulfill all Religion &amp; Culture Core Requirements listed above, 23 credits</li> <li>Fulfill all Bible &amp; Theology Core Requirements listed above, 12 credits</li> <li>Fulfill all Additional Requirements listed below, 24 credits</li> </ul>	
Language Requirement, minimum grade C-, 15 credits GK101 Elementary New Testament Greek I GK102 Elementary New Testament Greek II HE201 Elementary Hebrew I HE202 Elementary Hebrew II Upper Division Biblical Language Requirement (choose one) GK301 Reading Koine Greek HE301 Reading Biblical Hebrew	3 3 3 3 3

0t	her Requirements, minimum grade C-, 9 credits	
	SF110 Introduction to Spiritual Formation	3
	History of Philosophy Elective (choose one)	3
	PH381 Ancient and Medieval Philosophy	
	PH382 Modern and Postmodern Philosophy	
	Additional Upper Division Bible Requirement (choose one)	3
	BL313 Interpreting the Psalms	
	BL319 Hebrew Prophets	
	BL327 Pauline Epistles	
	BL420 Pentateuch	
	BL450 Synoptic Gospels	
	BL490 Seminar in Biblical Studies	
	GK301 Reading Koine Greek	
	HE301 Reading Biblical Hebrew	
RE	ELIGION – THEOLOGY & PHILOSOPHY TRACK (BA) REQUIREMENTS	
•	Fulfill all General Degree Requirements – see above	
•	Fulfill all General Education Requirements – see page 11, 44 credits	
•	Fulfill all Religion & Culture Core Requirements listed above, 23 credits	
•	Fulfill all Bible & Theology Core Requirements listed above, 12 credits	
•	Fulfill all Requirements listed below, 24 credits	
•	runni an requirements instea below, 24 creatis	
La	nguage Requirement (choose one set of two), minimum grade C-, 6 cr	
	GK101 Elementary New Testament Greek I and	3
	GK102 Elementary New Testament Greek II	3
	OR	2
	HE201 Elementary Hebrew and	3
	HE202 Elementary Hebrew II	3
	OR Students may notition to allow for some other 6 and its of language	
	Students may petition to allow for some other 6 credits of language	
	study to meet this requirement	
0t	her Requirements, minimum grade C-, 18 credits	
	SF110 Introduction to Spiritual Formation	3
	PH381 Ancient and Medieval Philosophy	3
	PH382 Modern and Postmodern Philosophy	3
	PH450 Philosophy of Religion	3
	Additional Theology or Philosophy Requirements (choose two)	6
	PH331 Critical Thinking and Logic	
	PH399 Topics in Philosophy	
	PS472 Psychology of Religion	
	SO242 Sociology of Religion	
	TH395 Topics in the History of Christianity	
	TH399 Topics in Theology	

# **RELIGION – DOUBLE MAJOR TRACK (BA) REQUIREMENTS**

- Fulfill all General Degree Requirements see above
- Fulfill all General Education Requirements see page 11, 44 credits
- Fulfill all Religion & Culture Core Requirements listed above, 23 credits
- Fulfill all Bible & Theology Core Requirements listed above, 12 credits
- To complete this track, students must major in the Computer Science (BA) major as well as Religion.

# INTERCULTURAL STUDIES - GENERAL TRACK (BA) REQUIREMENTS

- Fulfill all General Degree Requirements see above
- Fulfill all General Education Requirements see page 11, 44 credits
- Fulfill all Religion & Culture Core Requirements listed above in Religion – General Track, 23 credits
- Fulfill all Requirements listed below, 24 credits

# Intercultural Studies Core Requirements, minimum grade C-, 12 credits

IC220 Intercultural Dialogue	3
IC290 Intercultural Pilgrimage	3
IC320 Leadership, Power, and Privilege in Diverse Contexts	3
IC450 Agents for Change: Serving in Diverse Communities	3
Other Requirements, minimum grade C-, 12 credits	
SF110 Introduction to Spiritual Formation	3
TH443 Christian Theology I	3
PH399-E Reconciliation and Justice	3
Upper Division Old Testament Elective (choose one)	3
BL313 Interpreting the Psalms	
BL319 Hebrew Prophets	
BL420 Pentateuch	
HE301 Reading Biblical Hebrew	

# INTERCULTURAL STUDIES - DOUBLE MAJOR TRACK (BA) REQUIREMENTS

- Fulfill all General Degree Requirements -- see above
- Fulfill all General Education Requirements see page 11, 44 credits
- Fulfill all Religion & Culture Core Requirements listed above in Religion General Track, 23 credits
- Fulfill all Intercultural Studies Core Requirements listed above, 12 credits
- To complete this track, students must major in the Computer Science (BA) major as well as Intercultural Studies.

# **CHRISTIAN MINISTRY (BA) REQUIREMENTS**

- Fulfill all General Degree Requirements see above
- Fulfill all General Education Requirements see page 11, 44 credits
- Required Social Science: PS110 Introduction to Psychology, minimum grade C-, 3 credits

- Fulfill all Religion & Culture Core Requirements listed above in Religion General Track, 23 credits
- Fulfill all Bible & Theology Core Requirements listed above in Religion General Track, 12 credits
- Fulfill all Ministry Core Requirements listed below, 29 credits
- Fulfill Additional Christian Ministry Requirements listed below, 9 credits

# Ministry Core Requirements, minimum grade C-, 29 credits

SF110 Introduction to Spiritual Formation	3
TH395 Topics in the History of Christianity	3
PM210 The Practice of Christian Ministry II	2
PM252 Pastoral Leadership and Congregational Life	3
PM372 History and Polity of the Church of the Nazarene	3
PM461 Christian Preaching	3
PM470 Ecclesiology: Worship and Preaching	3
PM471 Ecclesiology: Mission and Evangelism	3
PM472 Ecclesiology: Discipleship and Formation	3
PM473 Ecclesiology: Pastoral Care and Counseling	3

# Language Requirement (choose one set of two), minimum grade C-, 6 credits

GK102 Elementary New Testament Greek II	3
OR	
HE201 Elementary Hebrew I and	3
HE202 Elementary Hebrew II	3
OR	

Students may petition to allow for some other 6 credits of language study to meet this requirement

# History of Philosophy Elective (choose one), minimum grade C-, 3 credits

PH381 Ancient and Medieval Philosophy
3
PH382 Modern and Postmodern Philosophy
3

Note: The curriculum for the Christian Ministry Major is designed to meet all the education requirements for ordination in the Church of the Nazarene. Students who complete this major will receive a certificate stating that they have completed an ordination program approved by the Course of Study Advisory Committee (COSAC) in the Church of the Nazarene.

# YOUTH MINISTRY (BA) REQUIREMENTS

• Fulfill all General Degree Requirements – see above

GK101 Elementary New Testament Greek I and

- Fulfill all General Education Requirements see page 11, 44 credits
- Required Social Science: PS343 Adolescent Development, minimum grade C-, 3 credits
- Fulfill all Religion & Culture Core Requirements listed above in Religion General Track, 23 credits
- Fulfill all Bible & Theology Core Requirements listed above in Religion General Track, 12 credits

3

- Fulfill all Ministry Core Requirements as listed in the Christian Ministry Major see above, 29 credits
- Fulfill Additional Youth Ministry Requirements listed below, 15 credits

# Language Requirement (choose one set of two), minimum grade C-, 6 credits GK101 Elementary New Testament Greek I and GK102 Elementary New Testament Greek II 3 OR HE201 Elementary Hebrew I and 3 HE202 Elementary Hebrew II 3 OR Students may petition to allow for some other 6 credits of language study to meet this requirement History of Philosophy Elective (choose one), minimum grade C-, 3 credits PH381 Ancient and Medieval Philosophy 3 PH382 Modern and Postmodern Philosophy 3 Christian Education Requirements, minimum grade C-, 6 credits CE222 Philosophy and Methods of Youth Ministry 3 CE322 Issues in Youth Ministry 3

Note: The curriculum for the Youth Ministry Major is designed to meet all the education requirements for ordination in the Church of the Nazarene. Students who complete this major will receive a certificate stating that they have completed an ordination program approved by COSAC in the Church of the Nazarene.

# CHILDREN'S MINISTRY (BA) REQUIREMENTS

- Fulfill all General Degree Requirements see above
- Fulfill all General Education Requirements see page 11, 44 credits
- Required Social Science: PS342 Child Development, minimum grade C-, 3 credits
- Fulfill all Religion & Culture Core Requirements listed above in Religion General Track, 23 credits
- Fulfill all Bible & Theology Core Requirements listed above in Religion General Track, 12 credits
- Fulfill all Ministry Core Requirements as listed in the Christian Ministry Major see above, 29 credits
- Fulfill Additional Children's Ministry Requirements listed below, 15 credits

# Language Requirement (choose one set of two), minimum grade C-, 6 credits GK101 Elementary New Testament Greek I and 3 GK102 Elementary New Testament Greek II 3 OR HE201 Elementary Hebrew I and 3 HE202 Elementary Hebrew II 3 OR Students may petition to allow for some other 6 credits of language study to meet this requirement

History of Philosophy Elective (choose one), minimum grade C-, 3 credi	ts
PH381 Ancient and Medieval Philosophy	3
PH382 Modern and Postmodern Philosophy	3
Christian Education Requirements, minimum grade C-, 6 credits	
CE223 Philosophy and Methods of Children's Ministry	3
CE323 Issues in Children's Ministry	3
Note: The curriculum for the Children's Ministry Major is designed to meet all education requirements for ordination in the Church of the Nazarene. Studen complete this major will receive a certificate stating that they have completed ordination program approved by COSAC in the Church of the Nazarene.	ts who
WORSHIP ARTS (BA) REQUIREMENTS	
Fulfill all General Degree Requirements - see above	
Fulfill all General Education Requirements - see page 11, 44 credits	
Fulfill all Religion & Culture Core Requirements listed above in Religion –	
General Track, 23 credits	
<ul> <li>Fulfill all Requirements listed below, 29 credits</li> </ul>	
Worship Arts Core, minimum grade C-, 17 credits	
WA210 Worship in the Christian Tradition II	2
WA220 Foundations of Worship Ministry & Leadership	3
WA230 Introduction to Music for Worship	3
WA310 Worship Leadership and Program Administration	3
WA320 Technologies and Resources for the Worship Arts	3
WA485 Worship Arts Practicum <b>OR</b>	3
PM470 Ecclesiology: Worship and Preaching	3
Worship Arts Concentration, minimum grade C-, 3 credits	
WA215 Applied Worship Arts	.5
(Students will be required to take WA215 a total of 6 times	
to fulfill this requirement.)	
Additional Requirements, minimum grade C-, 6 credits	
BL313 Interpreting the Psalms	3
SF110 Introduction to Spiritual Formation	3
RELIGION MINOR	
TH110 Introduction to Religious Studies	3
BL220 Biblical Hermeneutics	3
Three additional courses with a BL, TH, or PM prefix numbered 301 or above	3
(9 credits)	
CHRISTIAN MINISTRY MINOR	
PM210 The Practice of Christian Ministry	2
PM252 Pastoral Leadership and Congregational Life	3
TH443 Christian Theology I <b>OR</b>	3
TH//// Christian Theology II	3

# INTERCULTURAL STUDIES MINOR IC110 Introduction to Intercultural Studies 3 3 BL220 Biblical Hermeneutics Three additional electives with an IC prefix (9 credits) PHILOSOPHY MINOR CP290 East Meets West: Western Philosophy and Globalization 3 PH381 Ancient and Medieval Philosophy 3 PH382 Modern and Postmodern Philosophy 3 PH450 Philosophy of Religion One additional course with a PH prefix numbered 300 or above. Students may also use PS472 Psychology of Religion or SO242 Sociology of Religion to fulfill this requirement. WORSHIP ARTS MINOR WA110 Worship in the Christian Tradition I 1 2 WA210 Worship in the Christian Tradition II BL220 Biblical Hermeneutics 3 Choose 3 of the following for a total of 9 additional credits (at least 3 credits at 300 level or higher) BL313 Interpreting the Psalms WA215 Applied Worship Arts (maximum 3 credits) WA220 Foundations of Worship Ministry & Leadership 3 WA230 Introduction to Music for Worship 3 3 WA310 Worship Leadership and Program Administration WA320 Technologies and Resources for the Worship Arts 3 WA485 Worship Arts Practicum 3

# RELIGION COURSE DESCRIPTIONS

**BL210 Biblical History and Literature (3 cr.)** Surveys the Christian Bible with the following objectives: highlight the central ideas and themes found in the Bible; introduce its chief persons, places, and events; and survey the various types of literature that are included in it. *Prerequisite: CP250. Offered annually, Fall.* 

**BL220 Biblical Hermeneutics (3 cr.)** A study of the science and art of biblical interpretation, including an overview of the formation of the Christian Canon(s), a survey of the history of interpretation, and an introduction to the theory, methods, and practice of biblical exegesis. *Prerequisites: CP250 and CP290 (at least concurrently). Offered annually, Spring.* 

**BL313** Interpreting the Psalms (3 cr.) A historical, literary, and theological study of the book of Psalms with special emphasis on the historical use of the psalms for Christian worship. *Prerequisite: BL220. Offered alternate years.* 

**BL319 Hebrew Prophets (3 cr.)** A historical, literary, and theological study of the biblical prophetic literature (i.e., Isaiah, Jeremiah, Ezekiel, and the Minor Prophets). *Prerequisite: BL220. Offered alternate years.* 

**BL327 Pauline Epistles (3 cr.)** Studies the life and teachings of Paul as presented in the letters attributed to him, with some attention given to the portrayal of Paul in Acts. *Prerequisite: BL220. Offered alternate years.* 

**BL420 Pentateuch (3 cr.)** A historical, literary, and theological study of Genesis, Exodus, Leviticus, Numbers, and Deuteronomy. *Prerequisite: BL220. Offered alternate years.* 

**BL450 Synoptic Gospels (3 cr.)** Studies the life and teachings of Jesus as presented in the Synoptic Gospels (Matthew, Mark, and Luke). Gives special attention to their literary relationships and the uniqueness of their respective portrayals of Jesus. *Prerequisite: BL220. Offered alternate years.* 

**BL490 Seminar in Biblical Studies (3 cr.)** Advanced study of particular biblical writings, themes, or issues chosen according to the interests and/or needs of students and the professor. This course may be taken more than once on different topics. *Prerequisites: BL220 and one course with prefix BL, GK, or HE that is 301 or above. Offered varying years.* 

**CE222 Philosophy and Methods of Youth Ministry (3 cr.)** An introduction to the field of Youth Ministry. Topics include: biblical, theological, psychological, and sociological, and cultural foundations; curriculum and methods; programming; organization; and administration. Observation and participation in several youth activities are required. *Prerequisite: CP150 (at least concurrently). Offered alternate years.* 

**CE223 Philosophy and Methods of Children's Ministry (3 cr.)** An introduction to the field of Children's Ministry. Topics include: biblical, theological, psychological, and sociological, and cultural foundations; curriculum and methods; programming; organization; and administration. Observation and participation in several children's activities are required. *Prerequisite: CP150 (at least concurrently). Offered alternate years.* 

**CE322 Issues in Youth Ministry (3 cr.)** A seminar course designed to address current and significant issues in Youth Ministry. Current or previous experience in youth ministry expected. *Prerequisite: CP150 (at least concurrently). Offered alternate years.* 

**CE323 Issues in Children's Ministry (3 cr.)** A seminar course designed to address current and significant issues in Children's Ministry. Current or previous experience in children's ministry expected. *Prerequisite: CP150 (at least concurrently). Offered alternate years.* 

**CE485 Practicum in Youth Ministry (3 cr.)** This practicum course is designed for Youth Ministry minors and will allow the student to ground their practice of Christian ministry in the context of a local church with particular attention to the Christian formation of teens. The student will complete 100 hours of field work in this experience. *Prerequisites: CE222 or CE322, Offered each semester.* 

**CE486 Practicum in Children's Ministry (3 cr.)** This practicum course is designed for Children's Ministry minors and will allow the student to ground their practice of Christian ministry in the context of a local church with particular attention to the Christian formation of children. The student will complete 100 hours of field work in this experience. *Prerequisites: CE223 or CE323. Offered each semester.* 

**GK101 Elementary New Testament Greek I (3 cr.)** Introduces Koine Greek grammar as it is used in the Greek New Testament. *Offered alternate years, Fall.* 

**GK102 Elementary New Testament Greek II (3 cr.)** Introduces Koine Greek grammar as it is used in the Greek New Testament. *Prerequisite: GK101. Offered alternate years, Spring.* 

**GK301 Reading Koine Greek (3 cr.)** A continuation of the study of Greek grammar and syntax with particular attention toward developing exegetical skills in the study of the Greek New Testament. The course will focus either on a selection of passages or a specific book in the New Testament. *Prerequisite: GK102. Offered alternate years.* 

**HE201 Elementary Hebrew I (3 cr.)** Introduces Hebrew grammar as it is used in the Hebrew Bible. *Offered alternate years, Fall.* 

**HE202 Elementary Hebrew II (3 cr.)** Introduces Hebrew grammar as it is used in the Hebrew Bible. *Prerequisite: HE201. Offered alternate years, Spring.* 

**HE301 Reading Biblical Hebrew (3 cr.)** A continuation of the study of Hebrew grammar and syntax with particular attention toward developing exegetical skills in the study of the Hebrew Bible. The course will focus either on a selection of passages or a specific book in the Hebrew Bible. *Prerequisite: HE202. Offered alternate years.* 

IC110 Introduction to Intercultural Studies (3 cr.) This course provides a general introduction to the various components of the Christian missionary enterprise. It includes an introductory examination of the biblical / theological and historical / cultural foundations of Christian missions. It will also look at contemporary mission efforts, strategies, and movements in various geographical areas, coincidentally providing a glimpse into other belief systems. Offered annually, Spring.

IC220 Intercultural Dialogue (3 cr.) Communication is at the heart of community building and the ability to work with difference is essential for service or work in increasingly multi-ethnic churches, non-governmental agencies and human services providers. This course will provide theoretical, methodological and practical insights into meaningful intercultural communication. Special emphasis will be given to the development of empathetic listening skills. Students will critically analyze manifestations of cultural difference, including instances of both intercultural and intergroup conflict as well as intercultural or intergroup cooperation. In addition, students will be introduced to intergroup dialogue and will create and implement a plan for facilitating an intergroup dialogue process in a particular context. Prerequisite: IC110. Offered alternate years.

**IC290 Intercultural Pilgrimage (3 cr.)** Offers those interested in missions an immersion into the cultural, theological, socioeconomic, psychological and practical demands of ministry, by placing students in a host culture to work with missionaries/indigenous clergy in a variety of settings. *Prerequisite: IC110. Offered alternate years.* 

IC320 Leadership, Power, and Privilege in Diverse Contexts (3 cr.) This course will introduce students to a theological framework related to leading where power and privilege inequities exist within diverse ecclesial, political, educational and social contexts. The course will explore the inequitable distribution of power and privilege related to topics such as wealth and income, race and gender and the intersection of class, race/ethnicity and gender. Students will be introduced to the theory related to nature of power and influence with special emphasis on how power and influence impacts the development of intercultural community. *Prerequisite: IC110. Offered alternate years.* 

**IC450 Agents for Change: Serving Diverse Communities (3 cr.)** This course will introduce students to a variety of essential players in community development such as churches, non-profits, civic organizations, educational institutions, government and for-profit sector who all work together to shape communities. Students will learn basic tools and skills for being an effective agent in diverse community settings through community organizing, advocacy, non-profit development, community needs assessment and ethnographic research. An essential part of this class will be to choose a community service project within the Greater Boston area and serve weekly at that project throughout the semester. *Prerequisite: IC110. Offered alternate years.* 

**IC485 Practicum in Intercultural Studies (3 cr.)** This practicum course is designed primarily for Intercultural Studies minors and will allow students to ground their practice of Intercultural Studies in a specific intercultural context. *Prerequisite: IC110. Offered each semester.* 

**MU141 Applied Music (1 cr.)** Private lessons in voice, piano, another instrument, or music composition for non-music majors; a secondary applied study for music majors; or one half hour lesson per week. *Offered fall and spring.* 

**MU201 Applied Music (2 cr.)** Private lessons in voice, piano, another instrument, or music composition for lower division music majors and non-majors. Provides a forty five minute lesson per week. *Offered fall and spring*.

**MU203** Ensemble (0.5 cr.) Options include A Cappella Choir, Choral Union, Symphonic Winds (can be taken for 0 credit), and other chamber ensemble as needed. *Offered fall and spring*.

**MU261 Music Theory I (3 cr.)** Reviews fundamentals; basic harmonic theory and analysis of tonal music; and diatonic triads in major and minor keys, spacing, doubling, voice leading and root position progressions. *Offered as needed.* 

**MU262 Music Theory II (3 cr.)** Studies theory, analysis and SATB harmonization; first and second inversions, cadences, non-chord tones, dominant and diatonic seventh chords. *Offered as needed.* 

MU315 Conducting (3 cr.) Studies basic techniques in conducting, analysis and score reading, and choral literature. Offered fall or spring as needed.

**PH331 Critical Thinking and Logic (3 cr.)** Basic principles of logic, deduction and induction. This course includes brief treatment of symbolic logic. *Prerequisite: Sophomore standing. Offered alternate years.* 

PH381 Ancient and Medieval Philosophy (3 cr.) Addresses issues in the history of philosophy. Examines the thought of pre-Socratic philosophers and ends with the Christian philosophy of Thomas Aquinas. Also examines key historical figures, such as Socrates, Plato, Aristotle, St. Augustine, and St. Anselm. Also includes the thought of various Eastern and African philosophers. *Prerequisite: CP290. Offered alternate years.* 

PH382 Modern and Postmodern Philosophy (3 cr.) Addresses issues in the history of philosophy. This course begins by examining the thought of René Descartes and concludes by examining the thought of contemporary philosophers. The thought of modern philosophers, such as John Locke, George Berkeley, David Hume, Thomas Reid, Immanuel Kant, G. W. F. Hegel, and Soren Kierkegaard will be addressed. The thought of postmodern philosophers, such as Martin Heidegger, Ludwig Wittgenstein, Alfred North Whitehead, and Jacques Derrida will also be examined. *Prerequisite: CP290. Offered alternate years.* 

**PH399 Topics in Philosophy (3 cr.)** Selected philosophical topics dealing with contemporary and/or cross disciplinary issues. This course may be taken more than once on different topics. *Prerequisites: CP290 and PH381 or PH382, or permission of instructor. Offered varying years.* 

**PH450 Philosophy of Religion (3 cr.)** Introduces students to pivotal questions regarding God and philosophy. Of primary importance are questions, such as: Does God exist and how can one know this? What are the primary attributes of God? How can one know whether one religion is more valid than another? Why is there evil in our world? What is the relationship between faith and reason? *Prerequisites: CP290 and PH381 or PH382, or permission of instructor. Offered alternate years.* 

**PM110** The Practice of Christian Ministry I (1 cr.) The course is required for students accepted into the Ministerial Scholarship Program. Students will begin a process of ministry assessment and preparation through the course by being introduced to issues of clergy self-care, financial management and personal integrity through the lens of holistic spiritual formation. Offered annually, Spring.

PM210 The Practice of Christian Ministry II (2 cr.) The course is required for students accepted into the Ministerial Scholarship Program. Students will continue the process of ministry assessment begun freshman year. The course will introduce issues of on-going clergy self-care, financial management, and personal integrity, through the lens of holistic spiritual formation in relationship to the church's lived experience. Particular attention will be paid to the context of ministry and the pastor's appropriate relationship to the church. Topics such as "pastor as person," conflict resolution, and congregational interaction will be explored. Offered annually, Spring.

PM252 Pastoral Leadership and Congregational Life (3 cr.) An introduction to the basic

responsibilities of the pastor. This course will include such topics as pastoral leadership, church administration, Christian Education, and the handling of church finances. Issues pertaining to pastoral ethics in dealing with finances, authority, interpersonal relationships, and pastoral expectations will be discussed. *Prerequisite: PM110. Offered alternate years*.

**PM372 History and Polity of the Church of the Nazarene (3 cr.)** A survey of the beginnings of the Church of the Nazarene, its policy, organization, leaders, and growth. *Prerequisites: Sophomore standing, CP290 (at least concurrently). Offered alternate years.* 

**PM461 Christian Preaching (3 cr.)** A course in the theology of preaching and the construction of sermons designed to inculcate and encourage biblical preaching, in order to develop strong, informed, and growing churches. *Prerequisites: BL220 and one BL, GK, or HE course 301 level or above. Offered alternate years.* 

**PM470 Ecclesiology: Worship and Preaching (3 cr.)** This internship course will examine the biblical, historical, theological, and practical foundations of Christian corporate worship. It will deal with issues of liturgy, Church calendar, hymnody, Sacraments, and the role of preaching in the context of worship. *Prerequisite: Junior standing. Offered annually, Fall.* 

**PM471 Ecclesiology: Mission and Evangelism (3 cr.)** This internship course will examine the biblical, historical, theological, and practical foundations of the church's mission in the world. It will deal with topics such as contemporary strategies for evangelism, developing a local church for missio Dei participation, and cross-cultural communication of the Gospel. *Prerequisite: Junior standing. Offered annually, Fall.* 

**PM472 Ecclesiology: Discipleship and Formation (3 cr.)** This internship course will examine the biblical, historical, theological, and practical foundations of Christian discipleship and formation. It will deal with topics such as Christian Education, spiritual formation practices for congregational life, and theories of human development and formation. *Prerequisite: Senior standing. Offered annually, Spring.* 

**PM473 Ecclesiology: Pastoral Care and Counseling (3 cr.)** This internship course will examine the biblical, historical, theological, and practical foundations of pastoral care and counseling. It will deal with topics such as appropriate care and concern for individuals and families in crises and rites of passage, theories of care and empathy, and processes of professional referral. *Prerequisite: Senior standing. Offered annually, Spring.* 

**PM485 Ministerial Practicum (3 cr.)** This practicum course is designed for Christian Ministry minors and will allow the student to ground their practice of Christian ministry in the context of the local church. The student will complete 100 hours of field work in this experience. *Prerequisite: Junior standing. Offered each semester.* 

**SF110 Introduction to Spiritual Formation (3 cr.)** A survey course designed to introduce students to the history, theology, methodology, and resources of spiritual formation. *Offered annually, Fall.* 

**TH110 Introduction to Religious Studies (3 cr.)** This course is intended to provide students with opportunities for deep reflection on and serious engagement with significant elements of the study of religion in general and the Christian faith in particular. While it covers the breadth of the field, it also highlights specific issues that will be dealt with in later courses. Students will be encouraged to see the many ways in which the study of religion is both deeply challenging and profoundly rewarding. *Offered annually, Spring.* 

**TH310 Survey of the History of Christianity (3 cr.)** Follows the general story line of Christian history and the development of major doctrines or creeds, according to what the church has believed, taught and confessed. Students will be exposed to the significant figures, themes, and events of the Patristic, Medieval, Reformations, Puritan, Pietist, Wesleyan and Modern periods of Christian history. Sources of theological reflection, historical development and contemporary expression will be identified. *Prerequisites: TH110 and CP250. Offered annually, Spring.* 

**TH395 Topics in the History of Christianity (3 cr.)** Selected topics in the history of Christianity, dealing in depth with periods (e.g., Patristic, Medieval, Reformations, Pietist, Puritan, Wesleyan, Modern) or subjects (e.g., women in church history). This course may be taken more than once on different topics. *Prerequisites: TH310 or permission of instructor. Offered annually, Fall.* 

**TH399 Topics in Theology (3 cr.)** Selected theological topics dealing with contemporary and/or cross disciplinary issues. This course may be taken more than once on different topics. *Prerequisites: CP250, CP290, or permission of instructor. Offered varying years.* 

**TH443 Christian Theology I (3 cr.)** Topics addressed include the nature and sources of the study of God (theology), the meaning and necessity of revelation, the nature and attributes of God, God as Trinity, God as creator, and the nature of humanity as both free and sinful. Emphasizes a Wesleyan perspective, with additional reflection from other branches of Christianity. *Prerequisites: CP250, CP290, and Junior standing. Offered annually, Spring.* 

**TH444 Christian Theology II (3 cr.)** Topics addressed include sin and evil, Christ as Savior, the need for salvation, Wesleyan sanctification, the work of the Holy Spirit, the Church, the Sacraments, and the Kingdom of God. Emphasizes a Wesleyan perspective, with additional reflection from other branches of Christianity. *Prerequisites: CP250, CP290, and Junior standing. Offered annually, Fall.* 

**TH472 Doctrine of Holiness (3 cr.)** A biblical, historical, and theological study of holiness. Special attention will be given to the formulation of the doctrine in the Wesleyan tradition, with emphasis on the holiness of God and his provision for the holiness of his people. *Prerequisites: CP250, CP290, and Junior standing, or permission of the instructor. Offered annually, Spring.* 

**TH495 Senior Seminar (3 cr.)** In-depth examination of issues and problems, academic and professional, pertinent to the discipline of religion. Required of all seniors who are majoring in any undergraduate program offered by the Department of Religion. Successful completion of this course fulfills the requirement for a senior exam or project. *Prerequisite: Senior Standing. Offered annually, Spring.* 

**WA110 Worship in the Christian Tradition I (1 cr.)** An introduction to the Worship Arts including biblical and theological foundations of worship and a basic history of worship through the Christian tradition. This course is required of all Religion and Culture program majors (Religion, Ministry, and Intercultural Studies). *Offered every year.* 

**WA210** Worship in the Christian Tradition II (2 cr.) A further exploration of the Worship Arts including biblical and theological foundations of worship and a basic history of worship through the Christian tradition. The course will also present a holistic and integrated view of the Worship Arts and the wide range of artistic expressions of worship used in the Christian tradition. *Offered every year.* 

WA215 Applied Worship Arts (.5 cr.) All Worship Arts majors will be required to take at least six credits of individualized lessons, specialty directed study, internships or involvement in other worship arts related events in a worship arts skill of their choosing. Skill areas may include piano, guitar, voice, sound engineering, theater, music theory, conducting, etc. Offered each semester. May be taken multiple times for up to 6 total credits. Note: Credits from this course do not constitute an overload.

WA220 Foundations of Worship Ministry & Leadership (3 cr.) An introduction to the role of Worship Pastors and the Worship-Leading Pastor. This course will build on WA110 and WA210 and will explore basic principles and fundamental skills for leading congregational worship and overseeing worship ministries. Topics will include worship planning, developing integrated congregational worship experiences, the connection of worship arts to preaching and the sacraments, and the use of a variety of artistic expression in

the process of corporate spiritual formation. *Prerequisites: WA110 and WA210. Offered alternate years.* 

**WA230** Introduction to Music for Worship (3 cr.) An overview of Christian hymnody and additional musical forms through the history of the church as well as an introduction to the basics of music theory necessary for worship leadership in the context of the local church. Basic principles for music selection, arranging, and principles of congregational singing will be explored. *Prerequisites: WA110 and WA210. Offered alternate years.* 

**WA310** Worship Leadership and Program Administration (3 cr.) An introduction to the fundamental ministry and leadership roles of the Worship Pastor including the basics of giving oversight to the variety of worship ministries in the local church. Topics include developing a yearly plan for worship, budgeting, team building, rehearsal techniques, and the like. *Prerequisites: WA110 and WA210. Offered alternate years.* 

**WA320 Technologies and Resources for the Worship Arts (3 cr.)** An introduction to the wide range of technologies used in the worship life of the church today. Topics include sound engineering, worship projection, worship planning software, web-streaming, music notation software, and DAWs (Digital Audio Workstations). *Prerequisites: WA110 and WA210. Offered alternate years.* 

**WA485 Worship Arts Practicum (3 cr.)** A supervised practicum designed to give students the opportunity to observe and experience the role and responsibilities of a worship arts pastor in a local church. In addition to on-site observation, students will participate in a group or individual directed study for reflection, mentoring and spiritual formation. *Offered each semester.* 

# Social Justice

#### Cross Divisional

The Social Justice minor includes a variety of elective options and is compatible with majors across campus. Along with classes included in the minor (which include courses from history, language arts, social work, the sciences, and elsewhere), students may contract to take other courses for the Social Justice minor. The Social Justice minor is offered in conjunction with the Center for Responsibility and Justice.

### SOCIAL JUSTICE MINOR, minimum grade C-, 15 credits

#### Choose five of following: CJ260 Conflict Resolution 3 3 CJ270 Advocacy SO110 Introduction to Sociology 3 3 SO212 Human Diversity SO310 Economics of Equality 3 3 SO315 Urban Experience SO320 Seminar in Globalization 3 EV310 Environmental Ethics and Policy 3 3 HI353 History of the Civil Rights Movement 3 PH399 Topics in Philosophy: Reconciliation and Justice CP410 Living Issues (Social Justice contract) 3 CP350 World Religions (Social Justice contract) 3

# Sociology

Division of Church, Society & Humanity Dr. Victoria Schow, Associate Professor Dr. Brian Massey, Professor Carolyn Riley, Assistant Professor

### SOCIOLOGY MINOR, minimum grade C-, 15 credits

SO110 Introduction to Sociology
Four additional 3 credit SO courses

3
12

#### SOCIOLOGY COURSE DESCRIPTIONS

**SO110 Introduction to Sociology (3 cr.)** Studies human behavior that focuses on how society affects the individual and how the individual affects society. Introduces the student to terms, concepts, and scientific methods used in sociological research. Examines a wide variety of subjects (e.g., culture, religion, education, family, deviance, social change). *Offered annually.* 

**SO190/CJ190 Introduction to Crime, Law and Justice (3 cr.)** Provides an introduction to crime, law and justice. The course will focus the understanding of the American Judicial System and the administration criminal and civil justice. The course will also address historical and current issues which shape the American justice system. *Offered fall.* 

**SO212 Human Diversity (3 cr.)** Studies the various subgroups which make up the American society. Attempts to understand these subgroups in terms of their sociopolitical heritage, lifestyles, social identities, and social circumstances. Examines a wide variety of subgroups such as racial, ethnic, cultural, lifestyles, physical/mental ability, and age populations in the American society. *Offered spring*.

**SO242 Sociology of Religion (3 cr.)** A comparative and analytical study of organized religion as a social institution. Examines conversion, church growth, belief and practices of major American faiths, types of church structure, secularization, function, and conflict of religion in society. *Offered alternate years*.

**SO310 Economics of Equality (3 cr.)** The course helps students apply the study of economics in addressing and resolving the needs of diverse communities. The focus of this course is on building knowledge, values, and skills that lead to individual and collective economic justice. This course will address such economic topics as capitalism and socialism, globalization, funding, scarcity of resources, income distribution and the underprivileged, the concept of human capital, and institutionalized forms of economic oppression.

**SO313/PS313 Social Psychology (3 cr.)** Studies the individual behaving in group interaction. Investigates social behavior involved in prejudice, conformity, aggression, leadership, affiliation, and communication and relates that to contemporary social issues of our society. *Prerequisite: PS110. Cross-listed as PS313. Offered fall.* 

**SO314/PS314 Group Psychology (3 cr.)** Forms small group interaction from theoretical and experimental perspectives. Covers group structure and process, with special attention to leadership and roles. Includes an interpersonal group experience each week. *Prerequisite: PS110 and PS313. Cross-listed as PS314. Offered spring.* 

**SO315/PS315 Urban Experience (3 cr.)** An interdisciplinary approach to understanding the dynamics and challenges of life and ministry in the city. Readings and lectures from varied theoretical perspectives (theological, psychological, sociological, economic, and political) are combined with exposure to various urban ministry models through site visits and field experience. *Prerequisite: Sophomore standing. Cross-listed as PS315. Offered alternate years.* 

**SO320/HI320 Seminar in Globalization (3 cr.)** Examines globalization from the perspective of politics, history, sociology, and theology. *Prerequisite: Junior standing. Cross-listed as HI320. Offered annually.* 

**SO350/CJ350 Criminology and Victimology (3 cr.)** A social scientific study of crime and victimology in society, including an examination of the historical theories of crime, and an analysis of the methods and research to respond to these crimes at both the legal level and in the treatment of victims. *Prerequisite: CJ190. Offered alternate years.* 

**SO351/PS351 Methods of Social Research (3 cr.)** Develops research skills with emphasis on social research as a scientific inquiry and problem-solving tool in explaining human social behavior. Students learn how to formulate problems for research and implement appropriate research methods. *Prerequisite: PS251 or permission of instructor. Cross-listed as PS351. Offered fall and spring.* 

**SO430 Field Experience (3 cr.)** Supervised practical experience in a vocation closely related to the student's interest and/or future plans in psychology. Readings, written assignments, and group meetings assist in reflecting on and integrating the knowledge gained from involvement at an approved placement site. *Prerequisite: Attendance at a pre-placement meeting. Recommended for Junior year. Offered fall and spring or by special arrangement in the summer.* 

**SO451/PS451** Quantitative Research and Data Analysis (3 cr.) Introduces the concepts and procedures employed in quantitative research in the social sciences. Explores several data analyses (from univariate to multivariate analyses) with the use of the computer (both mini and micro). Utilizes SPSS and practices writing quantitative results in APA format. *Prerequisite: PS251. Cross-listed as PS451. Offered alternate years.* 

# Sport Management

Division of Professional Studies
Didier Dinh, Instructor
Ron Hamwey, Instructor
Corey Marks, Instructor
Tyler Pagaduan, Instructor
Logan Sharp, Instructor
Dr. Brad Zarges, Instructor

#### MISSION:

The mission of the Sport Management Program is to provide, within a distinctly Christian environment, the specialized training and education necessary to become a successful leader within the sport industry.

#### **GOALS:**

- 1. To develop the necessary understanding from an application and pedagogical perspective so students are prepared to pursue a career in the sport sciences or further their education within the discipline.
- 2. To provide an environment for students to practice critical thinking, problem solving, and developing ethical solutions.
- To foster individuality as a tool of sport science that achieves problem solving in a creative manner.

- 4. To provide students with the ability to effectively communicate with diverse audiences verbally, in written texts, and through the use of multi-media presentations and mass communication.
- 5. To articulate and foster Christian ethics as it pertains to sports science activities with the goal of integrating faith and learning throughout the sports science program.
- 6. To display an understanding of and appreciation for diversity in sport and its potential benefits to resolving cultural issues.

### **DEGREES, MAJORS AND TRACKS OFFERED**

**Bachelor of Science**: Sport Management

Minor: Sport Management

### **GENERAL DEGREE REQUIREMENTS**

- Fulfill all General Education Requirements see below
- Earn minimum of 123 Graduation Credits
- Pass Program Portfolio Assessment
- Meet minimum Cumulative GPA of 2.0

### GENERAL EDUCATION REQUIREMENTS – 44 credits required

See page 11 for course options.

Cultural Perspectives Requirements, 32 credits

Physical Education Skills, 2 credits

Lab Science, 4 credits

Required Math: MA118 Introduction to Statistics or PS251 Statistics: Soc Science,

minimum grade C-, 3 credits

Social Science, 3 credits

### SPORT MANAGEMENT (BS) REQUIREMENTS

- Fulfill all General Degree Requirements see above
- Fulfill all General Education Requirements see page 11, 44 credits
- Fulfill all Sport Management Core Requirements see below
- Fulfill all Business Administration Minor Requirements, Education Minor Requirements, or Exercise Science Minor Requirements – see below

### Sport Management Core (all required), minimum grade C-, 38.5 credits

SM110 Introduction to Sport Management	2
SM132 Sports Communication	2
SM222 Sports Marketing & Sponsorship	3
SM282 Principles of Leadership & Coaching	3
SM350 Psychology of Sport	2
SM362 Contemporary Issues and Ethics in Sport	2
SM372 Sports Governance and Compliance	2
SM382 Event Planning and Promotion	2
SM397 Facilities Management	2
SM398 Practicum in Sport Management	1
SM432 Research Methods in Sports	3

SM452 Legal Issues in Sport	2
SM462 Senior Seminar	1.5
SM488 Internship in Sport Management	3
Choose either the Business Administration Minor, the Education Minor,	
or the Exercise Science Minor.	
Business Administration Minor (all required), minimum grade C-, 21 cre	edits
Descriptions for Business courses can be found under Business program.	
AC240 Accounting for Nonfinancial Managers	3
BA232 Principles of Macroeconomics	2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2
BA324 Entrepreneurship and Business Plan Development	3
BA478 Seminar in Leadership	3
MK252 Principles of Marketing	3
MT212 Principles of Management	3
MT426 Human Resource Management	3
Education Minor, minimum grade C-, 15 credits	
Descriptions for Education courses can be found under Education program.	
ED210 Foundations of Education	3
ED243 Educational Technology	3 3 3 3
ED310 Educational Psychology	3
ED320 Classroom Management	3
SN311 Human Exceptionalities	3
Exercise Science Minor, minimum grade C-, minimum 20 credits	
Descriptions for these courses can be found under their respective program lis	tings.
HS316 Kinesiology	2
HS317 Physiology of Exercise	2
BI241 Nutrition for Majors <b>OR</b>	2
BI110/BI110L Introduction to Nutrition for Non-Majors w/Lab	4
BI203/BI203L Musculoskeletal Anatomy and Physiology w/Lab	5
Complete a minimum of six credits from the list below:	
CH102/CH102L Chemistry of Life w/Lab <b>OR</b>	4
BI204/BI204L Systemic Anatomy & Physiology w/Lab	5
PS330 Substance Abuse	3
PS432 Physiological Psychology	3
SPORT MANAGEMENT MINOR, minimum grade C-, 15 credits	
SM110, SM222, SM362 and any 2 additional 3 credit Sport Management classes	
200 level or above.	

### SPORT MANAGEMENT COURSE DESCRIPTIONS

**PE101/PE102 Theory of Wellness (2 cr.)** Non-Major Physical Education course for which the student will be graded. An introductory course dedicated to understanding concepts and application of lifetime personal health and wellness that should result in optimal fitness and wellness for the student. Credit is also given for participation in any varsity sport that does not exceed two credit hours.

**PE222 First Aid and CPR (.5 cr. – non-majors)** Provides opportunity to become Red Cross Certified in (1) First Aid care and prevention of school related injuries, and (2) CPR for babies, children and adults. Occurs in a modified lecture format, supplemented by audiovisual teaching methods. Assessment is based on written examinations and skill performance.

**SM110 Introduction to Sport Management (3 cr.)** Introducing the student to the topic of sport management with an emphasis on the philosophical and historical foundations of sport management, as well as the current and future trends in sport management.

**SM132 Sports Communication (3 cr.)** This course examines the role of communication as it applies to sport management and the ability to be an effective leader within the industry. Students will develop an understanding of the interactions and information exchanges within a sport organization that are most applicable to sport management.

**SM222 Sports Marketing & Sponsorship (3 cr.)** Sport marketing and sponsorship is designed to apply marketing principles to the area of sport, sport events, and sport products. Sponsorship and marketing strategies include sales, promotions, and advertising of sport will be emphasized and the avenues that emphasize will be communicated.

**SM282 Principles of Leadership & Coaching (3 cr.)** This course provides an overview of concepts within the coaching world. Students will be introduced to coaching principles and theories which they can apply across all athletic programs. They will also learn leadership styles, skills, and traits and incorporate these techniques and strategies in the workplace. Topics include: Theoretical perspectives, team dynamics, philosophy, history and liability to name a few.

**SM350 Psychology of Sport (3 cr.)** Applies psychological principles to the understanding and coaching of sport. Emphasizes the emotional and attitudinal aspects of athletic performance and their impact on the performer. *Offered alternate years*.

**SM362 Contemporary Issues and Ethics in Sport (3 cr.)** This course examines the major issues and controversies of sport in contemporary society. Students will develop an appreciation of the ways sport in society contributes to analyzing and understanding human behavior in sport contexts. Students will be introduced to the basic understanding of theories and principles related to socio-cultural issues and ethics as well as morality in the sport industry. Issues such as race, social class, gender, politics, religion, economics, media, physical disabilities, and ethics as they relate to sports will be studied.

**SM372 Sports Governance & Compliance (3 cr.)** This course is designed to provide students with a basic understanding of the role of governance structures and management in sports organizations. The primary aim is to familiarize students with a basic understanding of the organizational structures used in the management and governance of sport. Topics and issues discussed will involve organizational theory, behavior and governance structures used in amateur, professional and international sports organizations.

**SM382 Event Planning and Promotion (3 cr.)** Advanced course in event management and sponsorship acquisition that highlights the competencies involved in the designing, planning, implementing, and evaluating of sport events. The course also focuses on the components of developing marketing plans and sponsorship proposals for various events in sport.

**SM397 Facilities Management (3 cr.)** This course introduces students with the scope and complexity of design, operation and upkeep of sport and recreation facilities. Predominant areas of focus will include facility design, trends, risk management, crowd management and event planning.

**SM398 Practicum in Sport Management (1 cr.)** A hands-on 35-hour minimum experiential learning opportunity that includes working under direct supervision as an administrative assistant with a sport or fitness program, assisting in Lahue Center, or working in ENC athletics. *Prerequisite: Approval of advisor and program chair.* 

**SM432 Research Methods in Sports (3 cr.)** This course is designed to develop research skills with an emphasis on sport specific research as a scientific inquiry and a problem-solving tool. Students will learn to formulate sport problems for research and implement appropriate qualitative and quantitative research methods.

**SM452** Legal Issues in Sport (3 cr.) This course provides an in-depth analysis of the legal issues specific to the sports industry with emphasis on tort and contract liability, agency, antitrust, labor, sex discrimination, trademark and constitutional law. Current legal cases will be researched and analyzed.

**SM462 Senior Seminar (1.5 cr.)** This course guides the student in their preparation of the senior portfolio and the oral interview. Students will be provided an opportunity for self-development and synthesis of the major themes explored during prior courses. Both individual and group activities are scheduled in order to facilitate the senior comprehensive preparation and career planning.

**SM488 Internship in Sport Management (3 cr.)** This experience, for a minimum of 100 hours, is designed to provide the student with a unique experience in a sport environment of their interest. The student finds an agency that will allow the student experience in sport program planning, management instruction, or marketing. *Prerequisites: Senior standing and approval of advisor.* 

# **ADMINISTRATION AND STAFF**

as of 4/11/2023

#### OFFICE OF THE PRESIDENT

Rev. Dr. Colleen Derr, President (effective 7/1/23)

Vacant, Executive Assistant

#### **ACADEMIC AFFAIRS**

Dr. William McCoy, Vice President for Academic Affairs and Dean of the College
Dr. Matthew Waterman, Associate Dean for Academic Policy
Melinda Smith, Director of Curriculum Development and Assessment
Lorraine Li, Administrative Assistant

#### **CENTER FOR STUDENT ENRICHMENT**

Dr. Trina Bryant, Executive Director of the Center for Student Enrichment
Vacant, Director of Student Success and Retention
Aprilis Diaz, Director of Career and Professional Development

#### TRADITIONAL UNDERGRADUATE ADMISSIONS

Dr. Tim Rees, Vice President of Enrollment
Lesley Britton, Director of Traditional Undergraduate Admissions
Madison Fernandez, Assistant Director of Admissions
Christian Hughes, Assistant Director of Admissions
Elia Salazar, Assistant Director of Admissions
Cynthia Marshall, Enrollment Counselor
Matthew Donahue, Administrative Program Coordinator

#### **ADULT, GRADUATE, & ONLINE ADMISSIONS**

Dr. Tim Rees, Vice President of Enrollment

James Sheets, Director of Adult, Graduate & Online Admissions

Stephanie Sheets, Director of AGS Advising

Vacant, AGS Enrollment Counselor

#### **ATHLETICS**

Dr. Brad Zarges, Associate Vice President of Athletics

Derek Schmitt, Associate Athletic Director for External Relations/Women's Volleyball Coach

Robert Rossi, Jr., Assistant Athletic Director for Communications & Scheduling

Anne Cawthorne, Office Manager

Taisha Becker, Cross Country Coach

Freddy Perez, Men's Soccer Coach/Faculty/Assistant SID
James Lipocky, Women's Soccer Coach/Coordinator of Student-Athlete Success
Didier Dinh, Women's Basketball Coach/Faculty
Jesus Lucart, Men's and Women's Tennis Coach
Corey Marks, Men's Volleyball Coach/Faculty
Tyler Pagaduan, Women's Softball Coach/Faculty

Chris Shank, Men's Baseball Coach/Outdoor Facility Manager Logan Sharp, Men's Basketball Coach/Faculty Ron Hamwey, Men's Lacrosse Coach/Faculty Michael Wadsworth. Head Athletic Trainer

### **BUSINESS OFFICE/AUXILIARY SERVICES**

Janice Blodgett, Senior Accountant
Julia Bass, Accounts Payable
Michael Ivanoskos, Cashier/Receptionist

#### **CAMPUS KINDER HAUS**

Nicole Caldwell, Director Amy Harjula, Assistant Director Kerri Kosilla, Office Manager Mary Connell, Teacher Julie Flood, Teacher McKenna Kern, Teacher Amelie Malouin Pruitt, Teacher Rebecca Martell, Teacher Nyxanna Martin, Teacher Alexandria Nashawaty, Teacher Veronica Trumbull, Teacher Hannah Maynard, Teacher Nicole Lynch, Teacher Wanda Cody, Teacher Molly McGoldrick, Teacher Jennifer Menelly, Paraprofessional Wendy Cvilikas, Teacher Aide (FT) Emma McDonald, Teacher Aide (FT) Sheri Milley, Teacher Aide (FT)

#### **COUNSELING/HEALTH SERVICES**

Katie Crawford, Director of Counseling Services
Jannett Liburd, Counselor
April Churchill, Campus Nurse
Amy Nielson, Office Manager

#### FINANCIAL AFFAIRS

Robert Cornell, Vice President & CFO
Patricia Constantino, Controller
Janie Graves, Business Operations & Director of Risk Management

#### **FACILITIES MANAGEMENT - Sodexo**

Richard Zuscak, Director of Facilities II
Jim Gardner, Assistant Director of Facilities
Joseph Fernandes, Assistant Director of Facilities
Stacy Wiegand, Administrative Assistant
John Reardon, Housekeeping Manager

#### STUDENT FINANCIAL SERVICES

Dr. Tim Rees, Vice President of Enrollment
Troy Martin, Director of Student Financial Services
Vacant, Associate Director of Student Financial Services
Leila Pierre, Assistant Director of Student Financial Services – Student Accounts
Vacant, Financial Aid Program Advisor
Eva Neil, Financial Aid Specialist
Rebecca Hynes, Financial Aid Counselor – New Students (PT)
Michelle Schram, Financial Aid Processor (PT, Contract)

Wesley Paul, Student Accounts Representative

Matthew Donahue, Student Financial Services Receptionist

#### **HUMAN RESOURCES**

Nadine Pfautz, Director of Human Resources Yovani Edwards, Payroll Coordinator Marina Azamfieri, Human Resources/Payroll Assistant

#### INFORMATION TECHNOLOGY

Charles Burt, Chief Information Officer
Christopher Fiedler, Windows Systems Administrator
Jeff Graham, Help Desk/Telecom Manager
Jonathan Bohall, Email Systems Administrator
TBD, Network Administrator
Yuri Seneme, Help Desk Analyst
Joe Fahs, Instructional Technologist
Mike Miracle, Programmer and Analyst

#### INSTITUTIONAL ADVANCEMENT

Kristen Wilson, Executive Director of External Affairs Jessica Rogers, Coordinator of Operations Dr. John Nielson, Church Relations Director Matthew Carpenter, Alumni Director

#### **INSTITUTIONAL EFFECTIVENESS & RESEARCH**

Vacant, Director of Institutional Research & Effectiveness

#### LIBRARY

Amy Hwang, Director of Library Services
Patricia Vazquez, Instructional Resources Center Coordinator

#### MARKETING, COMMUNICATIONS, PUBLICATIONS

Vacant, Director of Marketing and Communications
Susan Ramey, Senior Designer
John Shea, Marketing Webmaster

#### **REGISTRAR'S OFFICE**

Timothy McDonald, Registrar
Yvonne Christensen, Transcript Assistant
Pamela Jayne, Registrar Specialist
Lydia Marchese, Assistant Registrar
Ruthanne Smith-Mann, Academic Records Assistant

#### SPIRITUAL DEVELOPMENT OFFICE/CHAPLAIN

Rev. David Young, Chaplain L. Michaels, Associate Chaplain

# STUDENT LIFE AND STUDENT SERVICES Dr. Ian Slater, Vice President of Student Life and Title IX Coordinator

Nicole Alves, Administrative Assistant & Operations Coordinator
Robert Benjamin, Vice President for Multicultural Affairs
Rachel Hafler, International Student Services Coordinator & DSO
Kristen Pierce, Dean of Students
Maria Fernandes, Director of Food Dining Services
Matthew Galiano-Williams, Director of Residential Life and Housing
Jacob Hafler, Director of Student Engagement
MacKenzie Mills, Housing and Hospitality Coordinator

Joshua Eisenberg, Director of Safety and Security

# **FACULTY – ACTIVE**

as of 4/11/2023

Russell Bedard ABD, Nova Southeastern University

MBA, Anna Maria College

Visiting Assistant Professor of Business

Sherrie Burt MS, Boston College

Chemical Hygiene Officer w/Lab Manager

Trina Bryant MFA, Northeastern University

Executive Director of the Center for Student Enrichment

Morgan Goodney MSW, Boston University

Instructor of Psychology

Dr. Thomas Harrison LLM, Boston University School of Law

JD, Suffolk University Law School MPA, Villanova University

Visiting Professor of History and Pre-Law

Amy Hwang MLS, Simmons College

**Director of Library Services** 

Jeffrey Johnson MBA, Marketing, Creighton University

Assistant Professor of Business

Dr. Wendy Johnson PhD, Niagara University

Assistant Professor of Education

Hammerskjoeld Katongera MSE, Bern University of Applied Sciences

Assistant Professor of Engineering

Dr. Marianna Krejci-Papa PhD, Yale University

Associate Professor of Communication Arts

Dr. Philip LaFountain ThD, Boston University School of Theology

Professor of Theology

Dr. Robert Logan PhD, Northeastern University

MS, Brandeis University
Assistant Professor of Biology

Dr. Jill Macko PhD, Massachusetts Institute of Technology

Associate Professor of Physics and Engineering

Dr. William H. Malas Jr. PhD, Union Theological Seminary and Presbyterian School

of Christian Education

Professor of Biblical Literature

Dr. Brian Massey PhD, Adelphi University

Professor of Psychology

Dr. William McCoy PhD, Boston University

Vice President for Academic Affairs and Dean of the

College

Professor of History

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MSM, Eastern Nazarene College

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Assistant Professor of Chemistry

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Associate Professor of History

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MS, Suffolk University

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Associate Professor of Intercultural Studies

Dr. Matthew Waterman PhD, University of Pennsylvania

**Professor of Biology** 

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Assistant Professor of Religion

Dean of the Chapel

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MA, Sport Science, East Tennessee State University

Associate Vice President of Athletics, Instructor of Sport Management

# **FACULTY EMERITI**

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# **DIVISION AND PROGRAM ORGANIZATION**

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**Religion and Culture:** Children's Ministry, Christian Ministry, History, History Education, Intercultural Studies, Religion, Worship Arts, Youth Ministry

Social Science: Crime, Law and Justice, Psychology

#### Science & Technology, Dr. Matthew Waterman, Division Chair

Computational Sciences: Applied Mathematics, Applied Physics, Computer Science, Information Technology, Mathematics, Physics

Engineering and Technology: Computer Engineering, Electrical Engineering, Electrical Engineering Technology, Engineering Studies, Environmental Engineering Technology, General Engineering

**Life Sciences:** Biochemistry, Bioinformatics, Biology, Chemistry, Environmental Science, Environmental Studies, Health Science

**Specialization Areas:** Pre-Medicine, Pre-Nursing, Pre-Occupational Therapy, Pre-Pharmacy, Pre-Physical Therapy

#### Professional Studies, Dr. Robert Purpura, Division Chair

**Business:** Accounting, Business Administration, Finance, Global Business, Management, Marketing

Sport Management: Sport Management

**Teacher Education:** Early Childhood, Elementary, Secondary, Teacher of Students with Moderate Disabilities

#### General Education, Dr. William Malas, Division Chair

**Cultural Perspectives Curriculum** 

General Studies (AA)

Center for Responsibility and Justice (CRJ)

**Honors Scholar Program** 

**Interdisciplinary Studies** 

**Boston Experience** 

Academic Symposium

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# **INDEX**

A		Biblical Literature (Minor)	174	
Academic Advisors	50	Biochemistry (BS)	92	
Academic Calendar	4, 50	Bioinformatics (BA)		
Academic Discipline	58	Bioinformatics (BS)	71	
Academic Divisions	16	Bioinformatics (Minor)	73	
Academic Honors	64	Biology	67	
Academic Information and Policies	49	Biology (BA)	70	
Academic Integrity Policy	63	Biology (BS)	69	
Academic Petitions	63	Biology (Minor)	73	
Academic Probation	59, 60	Board of Trustees	195	
Academic Programs	67	<b>Books and Other Financial Expenses</b>	38	
Academic Standing	57	Brickley Center, The	43	
Academic Standing, Good	58	Bridge Program	22	
Academic Suspension	60	Business	78	
Academic Warning	59	Business Administration (BA)	82	
Account Regulations	40	<b>Business Administration (Minor)</b>	82	
Accounting (BS)	80	Business Minors	82	
Accounting (Minor)	82	Business, Accounting (BS)	80	
Accreditations	8	Business, Finance (BS)	80	
Adding/Dropping Course	54	Business, Global Business (BS)	80	
Administration	188	Business, Management (BS)	81	
Administrative Clearance	66	Business, Marketing (BS)	81	
Admission to Student Teaching		C		
Practicum	116	Calendar	4, 50	
Admission to Teacher Education	115	Campus Kinder Haus	116	
Program Admissions Information/	115	Car Registration/Parking	48	
Requirements	21	Career and Professional Developmen	t 51	
Adult and Graduate Studies (AGS)		Career Planning	91	
Division	17	Center for Student Enrichment, The	51	
Advanced Placement (AP) Exams	23, 50	Chemistry	91	
Advisors	50	Chemistry (BA)	93	
Affiliations	8	Chemistry (Minor)	94	
Application for Admission	22	Children's Ministry (BA)	172	
Armed Forces/Veterans Benefits	31	Children's Ministry (Minor)	174	
Associate Degrees	16, 19	Christian Ministry (BA)	170	
Athletic Facilities	43	Christian Ministry (Minor)	173	
Athletics	42	CLEP Exams	23, 50	
Attendance Policy	53	Cloud Application Development		
Auditing a Course	55	(Minor)	101	
В		Commencement	46	
Bachelor's Degrees	16, 19	Communication Arts	96	
Biblical Languages (Minor)	174	Communication Arts (Minor)	96	
Biblical Literature (BA)	168	Commuter Services	44	

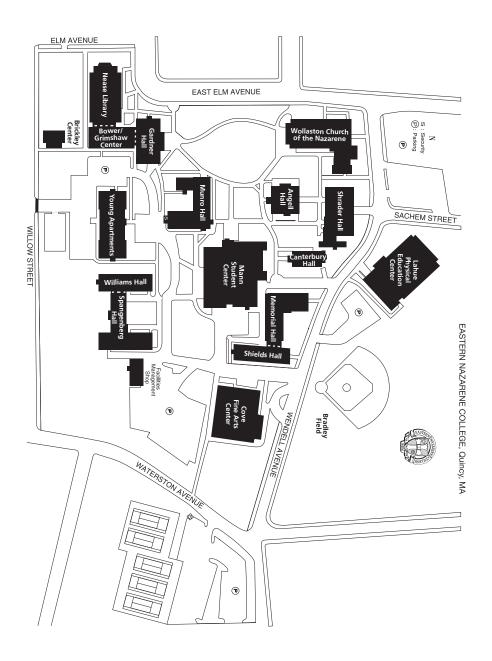
Computer Engineering (BS)	123	Dining Service	44
Computer Science	97	•	55
Computer Science (BA)	100	Directed Study	
, ,	99	Division and Program Organization	194 54
Computer Science (BS)		Dropping/Adding Courses	54 17
Computer Science Minors	101	Dual Degree Requirements	17
Computer Science, Information Technology (AS)	98	E Education	110
Computer Science, Information Technology (BS)	100	Education, Early Childhood (AA)	114
Council for Christian Colleges &		Education, Early Childhood (BA)	113
Universities (CCCU) Programs	66	Education, Elementary (BA)	113
Counseling Services	43	Education, Secondary (BA)	113
Course Incompletes and Extensions	55	Education, Teacher of Students	
Course Overloads	54	with Moderate Disabilities (BA)	114
Course, withdrawing from	39, 54	Electrical Engineering (BS)	123
Credit Load	53	Electrical Engineering	122
Crime, Law and Justice	105	Technology (BS)	123 7
Crime, Law and Justice –		ENC Community ENC Mission	7
Advocacy Track (BA)	106	ENC Scholarships and Grants	32
Crime, Law and Justice –		Engineering	121
General Track (BA)	106	Engineering (Minor)	125
Crime, Law and Justice –	107	Engineering (Millor) Engineering Studies (BA)	123
Law Enforcement Track (BA)	107	Engineering Studies (BA)  Engineering, Computer (BS)	123
Crime, Law and Justice – Legal Track (BA)	108	Engineering, Electrical (BS)	123
Crime, Law and Justice (Minor)	109	Enrollment Status	53
Crime, Law and Justice/		Environmental Engineering	33
Psychology Double Major (BA)	108	Technology (BS)	124
Cross Registration at Other		Environmental Science	129
Nazarene Institutions	66	Environmental Science (BS)	129
Cultural Perspectives Requirement	13	Environmental Science (Minor)	132
Cumulative GPA	64	Environmental Studies (BA)	131
Cybersecurity (Minor)	102	Exercise Science (Minor)	137
D		F	
Dean of the College Letter	6	Faculty	191
Dean's List	64	Federal Direct PLUS Loan	29
Degree Audit Reports	65	Faculty Emeriti	193
Degree Candidacy	65	Federal Loans and Grants	28
Degree Requirements, Associate	16	Federal Pell Grant	30
Degree Degree Requirements, Bachelor's	16	Federal Supplemental Educational Opportunity Grant (FSEOG)	30
Degree	16	Federal Teacher Education Assistance	
Degrees, Majors, Programs	19	for College and Higher Education	
Developmental Courses	11	(TEACH) Grant	30
Developmental Courses and		Fees and Tuition	37, 38
Graduation Credit	51	FERPA	49
Digital Marketing (Minor)	82		

Final Exams	63	1	
Finance (BS)	80	Independent Study	55
Finance (Minor)	82	Information Technology (AS)	
Financial Aid Awards	28	Information Technology (BS)	
Financial Aid Guidelines and		Insurance	44
Deadlines	26	Intercollegiate Athletics	43
Financial Aid Information/		Intercultural Studies (BA)	170
Application Process	25	Intercultural Studies (Minor)	175
Financial Aid, Types	28	Intercultural Studies,	
First Year Foundations	12	Double Major (BA)	170
First-Time Application Process	22	Interdisciplinary Studies	146
G		International Baccalaureate (IB)	50
General Business (Minor)	82	International Business Institute, The	83
General Degree Requirements	16	International Student	
General Education Mission &		Application Process	24
Philosophy	10	Intramural Sports	43
General Education Requirements	11	L	
General Engineering (BS)	125	Lab Science Requirement	12
General Studies (AA)	133	Late Registration	53
Global Business (BS)	80	Leave of Absence	40, 61
Global Business (Minor)	82	Leaving College	61
Government (Minor)	134	Liability	48
Grade Grievance Procedure	56	Liberal Arts	146
Grade Reports	56	Liberal Arts (BA)	146
Grading System	56	Liberal Arts Core Curriculum	10
Graduation	65	Liberal Arts Education	10
Graduation Honors	64	Library Services	52
н		M	
Health Insurance	44	Main Campus Map	201
Health Professions	157	Majors, Programs and Degrees	19
Health Science	135	Management (BS)	81
Health Science (BS)	136	Management (Minor)	83
Health Services	43	Marketing (BS)	81
Healthcare Administration	82	Marketing (Minor)	83
History	139	Math or Science Requirement	12
History (BA)	141	Mathematics	147
History (Minor)	142	Mathematics (Applied) (BS)	148
History Education (BA)	140	Mathematics (BA)	149
History Minors	142	Mathematics (BS)	148
Home-Schooled Student		Mathematics (Minor)	149
Application Process	23	Minors	17, 19
Honor Roll	64	Mission, ENC	17, 13
Honors Scholar Program	21	Motor Vehicle Registration/Parking	48
Honors Scholar Society	21	Multicultural Affairs	45
		Music	46

N		R	
Nondiscrimination Policy	9	Readmission Application Process	25
0		Refund Policy	
Off-Campus Study Opportunities	66	Registration	
Online Sessions	5	Delinian (DA)	
Overload, Course	54	Daliaian (Minar)	
P		Religion, Biblical Literature (BA)	
Parking	48	Religion, Biblical Literature (Minor)	174
Pass/Fail Grades	56	Religion, Biblical Studies, Theology,	
Payment, Account Regulations	40	intercultural Studies, Philosophy,	
Payment, Methods of	40	Worship Arts, and Ministry (Christian, Youth, & Children's)	166
Phi Delta	64	Religion, Children's Ministry (BA)	172
Phi Delta Lambda	64	Religion, Children's Ministry (Minor	
Philosophy (Minor)	175	Religion, Christian Ministry (BA)	174
Physical Education Requirement	173	Religion, Christian Ministry (Minor)	
Physics	152	Religion, Double Major (BA)	170
Physics (Applied) (BS)	153	Religion, Intercultural Studies (BA)	170
Physics (BA)	154	Religion, Intercultural Studies	170
Physics (BS)	153	(Minor)	175
Physics (Minor)	154	Religion, Philosophy (Minor)	175
Pre-Law	156	Religion, Theology and	
Pre-Law (Minor)	156	Philosophy (BA)	169
Pre-Medicine	157	Religion, Worship Arts (BA)	173
Pre-Nursing	158	Religion, Worship Arts (Minor)	175
Pre-Occupational Therapy	159	Religion, Youth Ministry (BA)	171
Pre-Pharmacy	159	Religion, Youth Ministry (Minor)	174
Pre-Pharmacy Dual Degree Program	160	Repeating Courses	55
Pre-Physical Therapy	158	Residential Life	45, 46
Preparatory Courses of Study	156	Room and Board	37
Prerequisites	54	S	
Privacy, Student Records	49	Safety and Security	46
Program/Division Organization	194	Satisfactory Academic Progress	
Programs, Majors and Degrees	19	(SAP)	34
Project Management (Minor)	83	Scholarships 3	0, 32, 33
Psychology	161	Semester System	49
Psychology – Child and Adolescent		Social Justice (Minor)	181
Track (BA)	162	Social Science Requirement	13
Psychology – Clinical and Research		Sociology (Minor)	182
Track (BS)	163	Special Student Status	57
Psychology – Social Relations		Spiritual Life	48
Track (BA)	162	Sport Management	183
Psychology (Minor)	163	Sport Management (BS)	184
Public Administration (Minor)	142	Sport Management (Minor)	185
		Staff	188

State Grants and Scholarships	30	Transfer Policy	61
Steady Progress Toward a Degree	58	Transfer Students Application	
Student Account Information	37	Process	23
Student Accountability	45	Transfer Students, Registration	52
Student Classification	57	Trustees, Board of	195
Student Clubs and Organizations	46	Tuition and Fees	37, 38
Student Government Association		Tutoring	51
(SGA)	45	U	
Student Life Information	42	Undergraduate Division	16
Student Life Opportunities	45	United States Citizens and	
Student Ministries	46	Resident Alien Students	26
Student Right-to-Know Act	47	V	
Student Schedules	54	Veterans Benefits	31
Students with Disabilities	51	Vision Statement	7
Supply Chain Management (Mino	r) 83	W	,
т		Waitlists	54
Teacher Education, Admission to	115	Weapons	47
Teacher Licensure	113, 114	William D Ford Federal Direct Loan	28
Teacher Placement	116	Withdrawal from Class	39, 54
Theology and Philosophy (BA)	169	Withdrawal from College	39, 61
Title IX / Sex-Based Discrimination	9	3	173
Transcripts	65	Worship Arts (BA)	
•		Worship Arts (Minor)	175

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