

For further information, contact the Director of the Honors Program, Honors House, Jacksonville State University, 700 Pelham Road North, Jacksonville, AL 36265-1602; view the Honors Program website at [www.jsu.edu/cas/honors](http://www.jsu.edu/cas/honors); or email [honors@jsu.edu](mailto:honors@jsu.edu).

## COLLEGE OF ARTS AND SCIENCES

Dean: J. E. Wade  
Associate Dean: Lisa Williams

### MISSION

The College of Arts and Sciences offers courses in humanities, arts, and sciences to support the University's general studies curriculum and educational programs, as well as traditional liberal arts, professional, and graduate programs of study leading to baccalaureate degrees, master's degrees, and the University's first doctoral degree in Emergency Management. The College gives highest priority to the quality of teaching delivered by its diverse and highly qualified faculty, while recognizing and promoting scholarly efforts, creative endeavors, and service, internal and external to Jacksonville State University. Using available resources, the College strives continuously for academic excellence, while keeping in mind the needs of its students.

### REQUIREMENTS FOR THE COLLEGE OF ARTS AND SCIENCES

#### Benchmarks for Success

All new Arts and Sciences majors must meet the Benchmarks-for-Success standard. A new student entering the University in Arts and Sciences is defined as a freshman, transfer student, or a change of major from another College to Arts and Sciences.

Prior to enrollment in any upper-level (300+) coursework beyond 80 semester hours, the student must meet the following criteria:

1. A minimum overall 2.0 GPA for the first 80 semester hours must be achieved;
2. English 101 and 102, or official transfer equivalents, must be successfully completed by 80 semester hours;
3. The English Competency Exam (ECE) must be attempted by 80 semester hours; failure to complete successfully the ECE by 96 semester hours voids the student's admission into the College, and no further upper-level coursework may be taken for credit towards an Arts and Sciences program; and
4. All math requirements for the degree program must be successfully completed by 80 semester hours.

Upon completion of the benchmarks by 80 semester hours, and following department review and approval, students will be provisionally assessed to enter a degree program in the College of Arts and Sciences. Full assessment into the degree program is contingent upon completion of all requirements.

Transfer students entering with 80 or more hours who have not completed the required benchmark coursework must enroll in these courses in the first semester of study at Jacksonville State University and subsequently until all benchmark deficiencies are removed. Additionally, transfer students with 80 or more hours must register for and take the English Competency Exam in the first semester of eligibility.

### BACHELOR OF ARTS WITH A MAJOR IN INTEGRATED STUDIES

(formerly Liberal Studies)

Jacksonville State University offers a Bachelor of Arts with a major in Integrated Studies. This degree program meets academic needs not ordinarily available in other degree programs of the University. A Bachelor of Arts with a major in Integrated Studies requires a total of 120 semester hours, of which 36 hours must be at the 300 or 400 level. A minimum of 30 hours must be completed in residence at JSU. All academic regulations of the University must be met. For additional information, including approved courses, see the Integrated Studies Advisor, Department of History, Stone Center or email [IntegratedStudies@jsu.edu](mailto:IntegratedStudies@jsu.edu) (formerly [LiberalStudies@jsu.edu](mailto:LiberalStudies@jsu.edu)).

#### Integrated Studies Minor:

The Integrated Studies minor offers knowledge and skills prized in many careers. This practical "toolbox" minor complements a variety of JSU majors.

The 24-hour minor requires completion of 15 hours of required courses: EH 141, Oral Communication; MS 204, Basic Statistics; MGT 301, Principles of Management, OR MKT 301, Principles of Marketing; MGT 330, Entrepreneurship; and CS 201, Introduction to Information Technology, plus 9 hours from a list of approved electives. Approved electives include ACC 200, Principles of Accounting I, EH 322, Technical Writing; EM 301, Introduction to Emergency Management, and CS 315 Introduction to Web Design. From MGT 301 or MKT 301, students may use the one not taken as a required course as an approved elective. With advisor approval, some flexibility in elective coursework is allowed. For more information, please email the Integrated Studies advisor at [integratedstudies@jsu.edu](mailto:integratedstudies@jsu.edu) or call the History Department at 256-782-5632.

## DEPARTMENT OF ART (ART)

Accredited by the National Association of Schools of Art and Design

Member of College Art Association

HAMMOND HALL and CARLISLE FINE ARTS BUILDING

Department Head: J. Seth Johnson

Professors: Henricks, Johnson, Runnells, Skinner

Associate Professors: Clark, McElroy

Assistant Professors: Anderson, Dunn, Lafferty, Miles, Oles

The Department of Art offers courses in studio art and art history. These courses are designed to increase the student's understanding of the visual arts, past and present, and to aid in the development of the student's creative abilities in the visual arts. The purpose of the department is to develop the professional artist and to offer courses for self-enrichment for the general student. Students majoring in art may select a degree program leading to the Bachelor of Arts degree or a Bachelor of Fine Arts degree with a studio concentration. Studio areas are offered in painting, drawing, printmaking, ceramics, photography, and graphic design.

**The Bachelor of Fine Arts (B.F.A.)** degree is a professional 122-hour advanced undergraduate curriculum. The 81-hour major includes 24 hours of art foundation courses, 9 hours of 300/400 level art history courses, 18 hours of studio concentration courses, 27 hours of studio electives in at least two other studio areas, and ART 488. A foreign language is recommended to fulfill the fine arts requirement in the general studies curriculum.

For eligibility to the B.F.A. program, a student must meet the following requirements: complete ART 111 or 112, 134, 233, 234, 240, and at least one course in the concentration area; complete 12 hours of general studies curriculum; and have a minimum 2.50 GPA overall and a minimum 3.00 GPA in the major. All potential candidates for the B.F.A. program must present a portfolio and pass portfolio review by the Art Department faculty for approval. All students eligible for the program will be reviewed for retention in the program. Please refer to the Bachelor of Fine Arts Plan of Study for all general studies and Art Department course requirements.

**The Bachelor of Arts** degree is a flexible 120-hour program which includes the general studies curriculum, the required art major courses, and a minor. The major requires 54 hours, including ART 111, 112, 134, 233, 234, 240, and 499, 6 hours of upper level art history, and 27 hours of 300/400 level studio courses. The student may choose any minor offered at JSU.

After completion of ART 111 or 112, 134, 233, 234, and 240, students must present a portfolio and pass portfolio review by the Art Department faculty. Students must have a minimum 2.00 GPA overall and a minimum 2.50 GPA in the major. Please refer to the Bachelor of Arts in the Art Plan of Study for all general studies and Art Department course requirements.

**All art majors** are required to seek advisement each semester from the department head or faculty advisor and become familiar with the general and specific requirements for the degree which they are seeking. Students majoring in Art are required to present a portfolio for faculty review by the end of their sophomore year. In addition, all art majors are required to have completed and passed ART 134, 233, 234, 240, and the portfolio review before enrolling in 400-level studio classes. Students must earn a "C" or better in each of the major and minor courses taken. All majors will participate in a senior exhibition of upper class studio work prior to graduation. The Department of Art reserves the right to select class projects for a permanent collection.

**A MINOR IN ART** consists of 21 hours of approved art courses, which include ART 134, 233, 234, 240, 3 hours in art history (202 recommended), and 6 hours of studio courses numbered 300 and above.

**A MINOR IN ART HISTORY** consists of 18 hours of 300-400 level classes from courses offered in art history by the Art Department. Students are encouraged to take Western Civilization and gain some experience with a foreign language. Students who wish to pursue a minor in Art History should consult with the department head or art historian.

### DEGREE REQUIREMENTS

The Bachelor of Arts degree offered by the Department of Art requires an overall minimum of 120 semester hours comprised of the following sub-requirements: a minimum of 12 hours of 300/400 level courses at JSU in the major, a minimum of 6 hours of 300/400 level courses in the minor at JSU, 41 hours of general studies courses, 19 hours of support courses, and a minimum of 36 hours of 300/400 level courses, which include those required in the major and minor. Students must earn a minimum of 2.00 GPA overall and at JSU, 2.50 in the major, and a "C" or better in each of the major and minor courses to graduate.

**PLAN OF STUDY  
BACHELOR OF ARTS  
TOTAL CREDIT HOURS – 120**

*In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations.*

**FRESHMAN YEAR**

Fall	Spring
EH 101 .....3	EH 102 .....3
Natural Science.....4	Natural Science .....4
Soc./Behavioral S.....3	Math 108 or 110 .....3
ART 134 .....3	ART 234 .....3
ART 233 .....3	ART 240 .....3
STU 101.....0	
16	16

**SOPHOMORE YEAR**

Fall	Spring
Literature Sequence .....3	Literature Sequence .....3
History .....3	Fine Arts..... 3
Studio.....3	ART HY 112..... 3
ART HY 111 .....3	Studio .....3
Minor/electives.....3	Minor/electives.....3
15	15

**\*\*Complete ECE, Math, and Portfolio Review\*\*  
Student must have a minimum 2.0 GPA overall and a minimum 2.5 GPA in the major.**

**JUNIOR YEAR**

Fall	Spring
Soc./Behavioral S .....3	Studio .....3
Humanities .....3	Soc./Behavioral S. ....3
ART HY 300+.....3	ART HY 300+ .....3
Studio.....3	Studio .....3
Studio.....3	Minor/electives.....3
15	15

**SENIOR YEAR**

Fall	Spring
Minor/electives .....4	Minor/electives..... 3
Minor/electives.....3	ART 499 Senior Seminar ..... 3
Studio.....3	Studio ..... 3
Studio.....3	Minor/electives..... 3
Minor/electives .....3	
16	12

The Bachelor of Fine Arts degree offered by the Department of Art requires an overall minimum of 122 semester hours comprised of the following sub-requirements: a minimum of 12 hours of 300/400 level courses at JSU in the major, 41 hours of general studies courses, and a minimum of 36 hours of 300/400 level courses, which include those required in the major. Students must earn a minimum 2.50 GPA overall and at JSU, 3.00 GPA in the major, and a "C" or better in each of his/her major courses to graduate.

**PLAN OF STUDY**  
**BACHELOR OF FINE ARTS**  
**TOTAL CREDIT HOURS - 122**

*In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations.*

**FRESHMAN YEAR**

Fall	Spring
EH 101.....3	EH 102 .....3
Natural Science.....4	Natural Science ..... 4
Soc/Behavioral S.....3	Math 108 or 110 ..... 3
ART 134 .....3	ART 234..... 3
ART 233 .....3	ART 240..... 3
STU 101.....0	
16	16

**SOPHOMORE YEAR**

Fall	Spring
Literature Sequence .....3	Literature Sequence .....3
History .....3	Studio .....3
Studio.....3	ART HY 112..... 3
ART HY 111 .....3	Studio (ART 334).....3
Studio (ART 340).....3	Studio .....3
15	15

**\*\*Complete ECE, Math, and Portfolio Review\*\***  
**Student must have a minimum 2.5 GPA overall and a minimum 3.0 GPA in the major.**

**JUNIOR YEAR**

Fall	Spring
Soc/Behavioral S.....3	Social/Behavioral S .....3
Fine Arts .....3	ART HY 300+ ..... 3
ART HY 300 .....3	Studio .....3
Studio.....3	Studio .....3
Studio.....3	Studio ..... 3
Studio.....3	
18	15

**SENIOR YEAR**

Fall	Spring
Humanities.....3	ART 488 Senior Seminar .....3
ART HY 300 .....3	Studio ..... 3
Studio .....3	Studio ..... 3
Studio.....3	Studio ..... 3
Studio.....3	
15	12

**ART (ART)**  
**DESCRIPTION OF COURSES**

- 111. Survey of Western Art I (3).** A study of the major visual arts from the Prehistoric Period to the Middle Ages.
- 112. Survey of Western Art II (3).** A study of the major visual arts from the Renaissance to the Contemporary World.
- 134. Drawing I (3).** Practice in different basic drawing techniques and media.
- 202. Art Appreciation (3).** Exploration of art forms of the past and present for understanding of purpose, meaning, and nature of art. Awareness, appreciation, and visual enjoyment of art are stressed.

203. **Honors Art Appreciation (3).** *Substitutes for ART 202.* Advanced individualized exploration of art forms of the past and present for understanding of purpose, meaning, and nature of art. Awareness, appreciation, and visual enjoyment of art are stressed.
233. **Design I (3).** Two dimensional projects related to design principles, theories, and techniques.
234. **Drawing II (3).** *Prerequisite: ART 134.* Concentration upon the refinement of technical proficiency with emphasis on the expressive potential of drawing media.
240. **Design II (3).** *Prerequisites: ART 134 and 233.* Advanced problems in two-dimensional and three-dimensional design, theories, and techniques.
242. **Digital Literacy for Artists and Designers (3).** Introduction to basic computer hardware and software skills for artists and designers with an emphasis on the Adobe Creative Suite. Students will learn to document and format their work for dissemination, as well as explore various media and modes for artist/designer self-promotions.
303. **Beginning Painting (3).** *Prerequisites: ART 134 and 233.* Introduction to formal and technical problems of painting with an emphasis on fundamental concepts and practices.
305. **Special Topics in Painting (3).** *Prerequisite: ART 303 and/or permission of instructor.* An in-depth, independent investigation of topics and techniques in the field of painting, such as advanced painting from the figure, painting on location, experimental media and materials research, etc. This course may be repeated for credit up to a maximum of nine hours.
309. **Ceramics I (3).** Problems in designing, glazing, and firing ceramic objects.
312. **Special Topics in Ceramics (3).** *Prerequisite: ART 309 and/or permission of instructor.* An in-depth, independent investigation of topics and techniques in the field of ceramics, such as glaze formation, figurative ceramics and alternative firing processes, etc. This course may be repeated for credit up to a maximum of nine hours.
319. **Beginning Sculpture (3).** *Prerequisites: ART 134 and 240.* Introduction to three-dimensional design problems and sculpture media.
335. **Figure Drawing (3).** *Prerequisites: ART 134 and 234.* Concentration on rendering the human form.
336. **Advanced Drawing IV (3).** *Prerequisites: ART 134, 234, 334.* The study of advanced aesthetic and technical skill in drawing. The emphasis will be on the student's individual expression.
338. **Special Topics in Drawing (3).** *Prerequisite: ART 336 and/or permission of instructor.* An in-depth, independent investigation of topics and techniques in the field of drawing, such as advanced drawing from the figure, drawing on location, experimental media and/or contemporary concepts and practices in drawing, etc. This course may be repeated for credit up to a maximum of nine hours.
340. **Design III (3).** *Prerequisites: ART 233, 240.* Study of color theories and their application to design.
342. **Graphic Design I (3).** *Prerequisites: ART 134 and ART 233.* Introduction to typography. The history of writing and type. Projects emphasize spatial problems and communicative value of type, with digital page layout problems.
343. **Graphic Design II (3).** *Prerequisite: ART 342.* Examination of the role of the graphic designer. Fundamentals of visual communication and letter form, with problems focusing on project research, design process, and unity of type and image.
344. **Drawing Studio (3).** *Prerequisites: ART 134 and 234.* Comprehensive study of creative drawing, emphasizing material, imagery, and concept.
345. **Intermediate Drawing Studio (3).** *Prerequisite: ART 344.* Creative drawing emphasizing aesthetic and conceptual concerns in thematic development.
362. **Printmaking I (3).** *Prerequisites: ART 134 and 233.* Fundamentals of printmaking. Studio work in intaglio (etching) techniques.
365. **Special Topics in Printmaking (3).** *Prerequisite: ART 362 and/or permission of instructor.* An in-depth, independent investigation of topics and techniques in the field of printmaking, such as relief, letterpress, intaglio, lithography, screenprinting, monotype, collagraph, digital printmaking, and experimental media. This course may be repeated for credit up to a maximum of nine hours.
368. **Introduction to Photography (3).** Introduction to basic digital photography and image processing techniques with emphasis on the aesthetic qualities of photography.
369. **Photography I (3).** *Prerequisite: ART 368.* Introduction to basic black and white film photography and darkroom techniques with emphasis on aesthetic qualities of photography.
374. **19th Century Art History (3).** *Prerequisites: EH 101, 102 and ART 111, 112.* Painting, drawing, and printmaking in the nineteenth century are studied through slide lectures. Offered alternate semesters.
385. **Modern Art to 1945 (3).** *Prerequisites: EH 101, 102 and ART 111, 112 or equivalent.* A study of the major visual arts from the end of the nineteenth century to 1945.
386. **Modern Art Since 1945 (3).** *Prerequisites: EH 101, 102 and ART 111, 112.* This course is designed to investigate the history of art from 1945 to the present.

389. **American Art and the Old South (3).** *Prerequisites: EH 101, 102 and ART 111, 112 or equivalent.* A survey of American art history with emphasis on the traditions of the South.
391. **Watercolor (3).** *Prerequisites: ART 134 and 233.* Watercolor painting for beginning and intermediate students. Emphasis on developing individual attitudes toward the water color medium. This course may be repeated for credit up to a maximum of nine hours.
394. **Primitive and Non-Western Art (3).** *Prerequisites: EH 101, 102 and ART 111, 112 or equivalent.* This course will investigate a series of primitive and non-western cultures through their artistic monuments.
399. **Study Tour (3).** Topics, excursions, and requirements determined by department. May be duplicated for credit; however, only three (3) credits may be applied toward any major or minor. Infrequently scheduled and subject to minimum and maximum numbers. Advance deposit required.
403. **Painting II (3).** *Prerequisites: ART 234, 240, 303.* Advanced work in painting with an emphasis on creative expression and a further development of basic concepts and fundamentals.
404. **Painting III (3).** *Prerequisite: ART 403.* Advanced work in painting with an emphasis on creative expression and a further development of basic concepts and fundamentals.
405. **Advanced Painting IV (3).** *Prerequisite: ART 404.* The study of advanced comprehensive approaches to current painting. The emphasis will be on the development of the individual student's originality in problem solving.
407. **Mixed Media (3).** *Prerequisites: ART 134, 233, 234, 240.* Using traditional as well as non-traditional materials, students are encouraged to explore the boundaries between drawing, painting, and sculpture. Research, artistic process, visual documentation, artist as narrator, practical issues, personal concepts, metaphor, and appropriation will play a role in completion of successful works of art. This course may be repeated for credit up to a maximum of nine hours.
409. **Ceramics II (3).** *Prerequisite: ART 309.* Advanced problems in ceramics.
410. **Ceramics III (3).** *Prerequisite: ART 409.* Further advanced problems in ceramics.
413. **Advanced Ceramics IV (3).** *Prerequisite: ART 410.* The study of advanced aesthetic and technical skills in ceramics. The emphasis will be on the student's individual approach and originality.
419. **Sculpture II (3).** *Prerequisite: ART 319.* Advanced work in sculpture with emphasis on dynamic spatial form.
420. **Sculpture III (3).** *Prerequisite: ART 419.* Advanced work in sculpture.
430. **Graphic Design III (3).** *Prerequisite: ART 343.* Development of design process and methodology. Visual systems, sequencing, and series. Applied projects include identity systems and brochure design. Illustration/vector art software.
431. **Advanced Graphic Design IV (3).** *Prerequisite: ART 430.* Information design, package design, and advanced type and image problems. Image manipulation software.
432. **Introduction to Letterform Design (3).** *Prerequisites: ART 330 or 429.* Introduction to the design of letterforms with emphasis on tradition and aesthetics. Letterforms developed from drawing through to digitization.
434. **Graphic Design Workshop (3).** *Prerequisite: ART 343 or permission of instructor.* Introduction to the professional practice of graphic design from the initial contact with the client, through the design process, to the practical aspects of production.
442. **Interactive Design I (3).** *Prerequisite: ART 342 or permission of instructor.* Introduction to contemporary concepts and methods of interface design for interactive digital media. Equal emphasis on functional, technical, and aesthetic principles.
443. **Interactive Design II (3).** *Prerequisite: ART 442 or permission of instructor.* Intermediate principles of interactive design for digital media. Continuation of principles covered in ART 442 with emphasis on technical development of interactive content.
445. **Advanced Drawing Studio (3).** *Prerequisite: ART 345.* Creative drawing based on studio production from concept to finished series. This course may be repeated up to a maximum of nine hours.
450. **Art Theory (3).** *Prerequisite: 3 hours of 300 level Art History.* An investigation of the theoretical background associated with artistic production.
462. **Printmaking II (3).** *Prerequisites: ART 134 and 233.* Fundamentals of printmaking. Studio work in relief techniques.
463. **Printmaking III (3).** *Prerequisite: ART 462.* Advanced problems in printmaking.
464. **Advanced Printmaking IV (3).** *Prerequisite: ART 463.* Advanced problems in printmaking utilizing traditional and experimental techniques. The emphasis will be on developing the student's individual approach.
467. **Photography in the Field (3).** *Prerequisites: ART 368 and permission of instructor.* Introduction to photographing on location. Emphasis will be on exploring the technical concerns and aesthetic possibilities of location photography. This course may be repeated for credit up to a maximum of nine hours.
469. **Photography II (3).** *Prerequisite: ART 368.* Introduction to color and advanced black and white photography, with emphasis on the technical and aesthetic aspects of photography.

470. **Alternative Processes in Photography (3).** *Prerequisites: ART 368 and 369.* Advanced use of color and black and white photography as fine art. Emphasis is on the use of advanced techniques and on personal expression. This course may be repeated for credit up to a maximum of nine hours.
471. **Advanced Photography (3).** *Prerequisites: ART 368, 369, and 469.* The study of advanced aesthetic and technical skills in black and white, color, and other photographic mediums. The emphasis will be on individual originality and creative expression. This course may be repeated for credit up to a maximum of nine hours.
472. **Basic Digital Photography (3).** *Prerequisites: ART 134, 233, 369, and ART 469 or 470.* This course will explore the primary manner in which digital and/or digitized images are different from traditional silver based photographic materials. Emphasis will be on both technical and aesthetic aspects of photography.
473. **Special Topics in Photography (3).** *Prerequisites: ART 368 and permission of instructor.* Advanced work in photography and digital imaging. Topics will rotate and include such areas as social and documentary photography, exploratory media, and advanced technical areas of study. This course may be repeated for credit up to a maximum of 12 hours.
479. **Independent Study in Art History (3).** *Prerequisite: Permission of instructor and department head, 12 hours (300+) of Art History.* Selected topics to be coordinated with instructor. This course may be repeated for credit up to a maximum of 12 hours.
481. **Internship Graphic Design (3).** *Prerequisite: ART 430 or permission of instructor.* Students will receive on-the-job training and experience in an area of their specialization. This course may be repeated for credit up to a maximum of six hours.
484. **Current New York Art Museum (3).** A study of New York art exhibitions and collections available in museums, such as the Metropolitan Museum of Art, the Museum of Modern Art, and local galleries. In addition, students visit Lincoln Center for the Performing Arts and attend four Broadway productions.
486. **Internship in Museum Work (3).** *Prerequisite: 12 hours (300+) in Art History.* Designed for students planning a career in museum work. Course includes history and organization of museums with work experience in a local museum. Recommended for Art History minor.
488. **BFA Seminar (3).** *Prerequisites: Acceptance in BFA Program and Senior Standing.* Required for the BFA. Seminar includes a review of current literature, portfolio presentation, BFA exhibition, and senior paper.
- 490, 491, 492, 493, 494, 495, 496. **Advanced Independent Study (3 each).** *Prerequisite: Completion of studio emphasis and permission of instructor and department head.* Intensive independent study for students within their studio emphasis, coordinated and approved by a faculty advisor. Each course may be repeated for credit, up to a maximum of 12 hours, with permission of Department Head.
499. **BA Senior Seminar and Exhibit (3).** *Prerequisite: Senior standing.* Required of senior art majors and must be taken the semester of graduation. Seminar will cover the important aspects of planning and hanging an exhibit and the preparation of a portfolio and resume. The fruition of this course will be the Senior Exhibit.

## DEPARTMENT OF BIOLOGY (BY)

242 MARTIN HALL

Department Head: Tim H. Lindblom

Professors: Al-Hamdani, Blair, Carter, Cline, Hamissou, Lindblom, Meade, Rayburn

Associate Professors: Murdock, Sauterer

Assistant Professors: Burns, Tolley-Jordan, Triplett

Instructor: Watkins

The Department of Biology offers a diverse spectrum of undergraduate courses in the biological sciences that enables a student to develop an understanding and appreciation of life, from molecular to ecological, and to develop the strong academic background necessary for pursuing graduate study or a career in biology or the health professions. The Department recognizes the importance of both content and process in science education and thus offers the opportunity to develop communication skills and engage in undergraduate research in the biological sciences.

The **Bachelor of Science** degree with a **Major in Biology** requires an overall minimum of 128 hours with a minimum of 36 hours of 300/400 level courses. The **Major in Biology** requires a minimum of 39 hours in biology with a "C" or better in major and minor classes. It also requires an approved minor of 18 hours or more. At least 12 hours of the 300/400 courses for the major and 6 hours for the minor must be taken in residence at JSU. Once the student has met the requirements for the major and minor, the hours remaining to complete the 128 hours overall will be classified as electives. A student must earn a 2.0 GPA overall and on campus. The Bachelor of Science degree with a major in Biology is for those who intend to pursue careers in health professions (medicine, dentistry, optometry, physical therapy, pharmacy, veterinary medicine, physician assistant, etc.), graduate programs (M.S., Ph.D.), biological education, biomedical sciences, biotechnology, conservation biology, environmental biology, organismal biology, marine biology, industrial professions (lab managers, consulting, etc.), or governmental professions (research scientist, NOAA, NMFS, etc.). After completing a common core of biology courses, the Biology major may choose a concentration from the listing below.

**Ecology and Environmental Biology** is designed for those majors who plan to enter graduate school or have careers in ecological or environmental research, environmental assessment, or education.

**Marine Biology** is for majors who plan to enter graduate school or have careers in marine biology research, environmental assessment, or education. The Department is an active member of Alabama's Marine Environmental Sciences Consortium. Summer study at the Dauphin Island Sea Lab is required.

**Pre-Health Professional Biology** is for those majors who intend to seek admission to such health professions as medicine, dentistry, physical therapy, etc., or graduate study in the biomedical sciences.

**Organismal Biology** is intended for those majors who plan graduate study in organismal biology (plant or animal biology), or who plan to pursue careers in biological education or conservation biology or as a naturalist.

**Cellular and Molecular Biology** is for those majors who plan graduate study in biotechnology, cell and molecular biology, or biochemistry or who plan to pursue careers in academic, industrial and/or biotechnology settings.

**Advising**—Students who plan to earn the B.S. degree in Biology must consult with the Department of Biology for advisement early in their plan of study and every semester thereafter. New students should consult the Department's freshman advisor before or during their first semester. Pre-Health Professional advisees are required to attend scheduled advising sessions that are announced on the departmental webpage. Transfer students should meet with either the Department's transfer advisor or a program advisor before or immediately upon transferring.

To complete the Biology Degree Program, the students majoring in Biology must plan carefully, since science laboratories can cause scheduling conflicts. An advisor can alert students to potential problems and assist in minimizing such conflicts. It is recommended that the Biology major complete the biology core of genetics, cell biology, ecology, and research in biology early in the course of study. Careful planning will facilitate the opportunity for undergraduate research.

Additional departmental, program, advising, and career information is available on the Internet at [www.jsu.edu/biology](http://www.jsu.edu/biology).

The **Bachelor of Arts Degree with a Major in Biology** requires a minimum of 128 hours with a minimum of 36 hours of 300/400 courses. The Major in Biology requires a minimum of 39 hours in Biology with a "C" or better in major and minor classes and 14 hours in supporting courses, including 6 hours of a foreign language. It also requires an approved minor of 18 hours or more. At least 12 hours of the 300/400 courses for the major and 6 hours of the 300/400 courses for the minor must be taken in residence at JSU. Once the student has met the requirements for the major and the minor, the hours remaining to complete the 128 hours overall will be classified as electives. A student must earn a 2.00 GPA overall and on campus. At the beginning of the sophomore year, students considering this degree program (BA vs. BS) should consult with the Biology Department Head or their Biology Faculty Advisor. There are two concentrations within the Biology **Bachelor of Arts** degree.

The **Naturalist concentration** is for those majors that are seeking careers in forest or park management or as environmental interpreters or park naturalists. Students in this concentration are required to have a minor in Law Enforcement and take Spanish to meet the foreign language requirement.

The **General Biology concentration** is for majors interested in careers in sales for chemical, pharmaceutical, and biological supply companies or book companies; biological illustration; or education. Students in this concentration have a choice of minors and foreign language. Students who plan careers in education should contact the Teacher Service Center in the College of Education, Ramona Wood Hall, Room 207, for information on certification and admission to education.

### **The Major in Biology (BS or BA)**

The requirements in biology for the major are

a. Freshman Biology Sequence: BY 101, 102, 103 and 104.....	8 hrs
b. Biology Core Courses: BY 322 (Genetics), BY 332 (Ecology) and BY 373 (Cell Biology) .....	12 hrs
c. Introduction to Research: BY 370.....	2 hrs
d. Biology courses to be selected from each of the following groups: Group I — Approved courses in cellular, physiological or developmental biology .....	4 hrs
Group II —Approved courses in organismal biology .....	4 hrs
e. Senior Seminar: BY 496 .....	1 hr
f. Other requirements and/or electives: .....	8 hrs
<b>TOTAL hours in Biology</b> .....	39 hrs
g. Required support courses .....	14-24 hrs

The specific biology courses, approved Group I and II courses, support courses and total hours required for the Biology major vary according to the specific concentration chosen. The requirements for each concentration are outlined in the "Plan of Study" which follows "Course Descriptions." **No more than 1 hour each of BY 327, BY 397, BY 427, and BY 489 can be applied to the Biology major.**

### **DEPARTMENTAL MINORS MINOR IN BIOLOGY**

A **Minor in Biology** comprises a minimum of 24 hours that shall include BY 101, 102, 103, 104, 322, 332, 373 and 4 additional hours of approved biology courses at or above the 300 level. A minor in Biology may not be taken in conjunction with a major in Biology.

## MINOR IN SPECIAL STUDIES

A **Minor in Special Studies** comprises 24 hours. This must include at least 13 hours of approved biology courses and at least 11 hours of approved courses from other disciplines. A minor in Special Studies must be taken in conjunction with a major in Biology, with written approval of the head, Department of Biology. Courses taken to satisfy requirements for the Biology major may not be counted as credit towards this minor. See the Biology Program Advisor for assistance with this minor.

### BIOLOGY (BY) DESCRIPTION OF COURSES

101. **Introductory Biology I (3).** *Corequisite: BY 103.* An introduction to the concepts of biology, including cellular structure and function, bioenergetics, patterns and mechanisms of inheritance, the processes of evolution, and ecology. For majors and non-majors.
102. **Introductory Biology II (3).** *Prerequisite: BY 101. Corequisite: BY 104.* An introduction to biodiversity, from bacteria through plants and animals, with an emphasis on their structure, function, and ecological interactions. For majors and non-majors.
103. **Introductory Biology Lab I (1).** *Corequisite: BY 101.* One two-hour laboratory per week. This course reinforces lecture materials and must be taken concurrently with BY 101.
104. **Introductory Biology Lab II (1).** *Prerequisite: BY 103. Corequisite: BY 102.* One two-hour laboratory per week. This course reinforces lecture material and must be taken concurrently with BY 102.
105. **Honors Introductory Biology I (3).** *Prerequisite: Admission to the Honors Program or permission of instructor. Substitutes for BY 101. Corequisite: BY 107.* An advanced introduction to the concepts of biology, including chemistry as related to biology, cell structure and function, energy pathways, cellular reproduction, genetics, genetic techniques, evolution and ecology. For majors and non-majors.
106. **Honors Introductory Biology II (3).** *Prerequisite: Successful completion of BY 105 or permission of instructor. Substitutes for BY 102. Corequisite: BY 108.* An advanced introduction to diversity in the living world. Emphasis is on structure, function, and ecological interactions of living organisms beginning with bacteria and viruses and progressing through plants and animals. For majors and non-majors.
107. **Honors Introductory Biology Lab I (1).** *Prerequisite: Admission to the Honors Program or permission of instructor. Substitutes for BY 103. Corequisite: BY 105.* One two-hour laboratory per week. This course reinforces lecture materials with hands-on creative laboratory exercises and must be taken concurrently with BY 105.
108. **Honors Introductory Biology Lab II (1).** *Prerequisite: Admission to the Honors Program or permission of instructor. Substitutes for BY 104. Corequisite: BY 106.* One two-hour laboratory per week. This course reinforces lecture materials with hands-on creative laboratory exercises and must be taken concurrently with BY 106.
114. **Introductory Biology Research Lab I (2).** *Corequisite: BY 101 and permission from the instructor.* Substitutes for BY 103. Two-hour laboratory (two times per week). Students will isolate mycobacteriophages from soil samples, purify them, perform electron microscopy, and isolate viral DNA for sequencing.
115. **Introductory Biology Research Lab II (2).** *Corequisite: BY 102 and permission from the instructor.* Substitutes for BY 104. Two-hour laboratory (two times per week). Students will obtain sequence data for their selected mycobacteriophage, annotate the genome and compare the genome to other mycobacteriophage genomes available in the GenBank database.
263. **Human Anatomy and Physiology (4).** *Prerequisite: BY 101, 103.* Lecture and laboratory. The first of a two-course sequence of human anatomy and physiology, with an emphasis on the skeletal, muscular, respiratory and circulatory systems. For students in health-related majors; no credit allowed toward Biology major or minor.
264. **Human Anatomy and Physiology (4).** *Prerequisite: BY 263.* Lecture and laboratory. The second of a two-course sequence of human anatomy and physiology, with an emphasis on the digestive, urinary, reproductive and endocrine systems. For students in health-related majors; no credit allowed towards Biology major or minor.
283. **Health Microbiology (4).** *Prerequisite: BY 101, 103.* Lecture and laboratory. The study of viruses, bacteria, protozoa and fungi that cause diseases in humans. For students in health-related majors; no credit for Biology major or minor.
301. **Field Zoology (3).** *Prerequisites: BY 101, 102, 103, 104.* Lecture, laboratory, and field study. Collecting and identifying animals and noting ecological conditions.
302. **Field Botany (3).** *Prerequisites: BY 101, 102, 103, 104.* Lecture, laboratory, and field study. The laboratory work will involve the collection and identification of native plants of Alabama.
303. **Biological Conservation (3).** *Prerequisites: BY 101, 102, 103, 104.* A contemporary and historical study of biological conservation in America. Topics include national and global biodiversity, threats to biodiversity, conservation ethics and economics, habitat loss and degradation, habitat fragmentation, overexploitation, invasive species, conservation genetics, and conservation policy. Also addressed are the management of species and population dynamics, ecosystem conservation, restoration of degraded ecosystems, and sustainable development.
320. **Comparative Vertebrate Anatomy (4).** *Prerequisites: BY 101, 102, 103, 104.* Lecture and laboratory. The comparative study of vertebrate organ systems supplemented in laboratory with the dissection of selected vertebrates.

322. **Genetics (4).** *Prerequisites:* BY 101, 102, 103, 104. Lecture and laboratory. Important facts, laws, theories, and methods used in the study of genetics.
323. **Microbiology (4).** *Prerequisites:* BY 101, 102, 103, 104. Lecture and laboratory. General microbiology, including methods of culture and identification of some of the most common types of microorganisms.
327. **Directed Studies in Biology (1).** *Prerequisite:* BY 322 or 332 or 373. *Recommended:* BY 370. May be duplicated for credit for a total of three (3) semester hours, but only 1 hour may be applied to the major. A laboratory, field or library research investigation dealing with an aspect of the biological sciences. Biology sponsor required for topic approval and supervision. (Grade of Pass/Fail only)
331. **Principles of Animal Nutrition (3).** *Prerequisites:* BY 101, 102, 103, 104. The classification and function of nutrients, deficiency symptoms, digestive processes, characterization of feedstuffs, and formulation of diets for domestic animals.
332. **Ecology (4).** *Prerequisites:* BY 101, 102, 103, 104. *Prerequisite or corequisite:* MS 112 or higher. Lecture, laboratory, and field study. The association and distribution of organisms in relation to the major environmental factors.
340. **Discovering Genomics and Bioinformatics (3).** *Prerequisite:* BY 101. The course provides fundamental background in bioinformatics, both theoretical (bioinformatics algorithms) and practical (databases and web-based tools used to study problems in biology), to students in computer science or in biological sciences. Introduction to the biological problems addressed in this course will be provided, as well as a formal definition of the computational problems and deep exploration of the algorithms for solving these problems. Practical use of topics introduced in class is demonstrated by laboratory exercises and homework problems. Students are grouped for class projects such that each group contains at least one life scientist and one computer scientist. (BY 340 is cross-listed with CS 340, but only one course can be counted for credit.)
370. **Introduction to Research in Biology (2).** *Corequisite:* BY 322 or 332 or 373. Lecture and discussion. An introduction to research in biology, including discussion of the scientific method; reading, analyzing, and interpreting biological literature; experimental design and use of statistics; building and interpreting figures and tables; ethics; and developing a basic proposal for undergraduate research in biology.
373. **Cell Biology (4).** *Prerequisites:* BY 101, 102, 103, 104. Lecture and laboratory. The study of prokaryotic and eukaryotic cells, with an emphasis on their chemical and structural organization, bioenergetics and reproduction.
397. **Biology Internship (1).** *Prerequisites:* BY 101, 102, 103, 104; either BY 322, 332 or 373; and permission of instructor required. May be duplicated for credit for a total of three (3) semester hours, but only 1 hour may be applied to the major. The student will spend a minimum of 25 hours gaining practical experience at a public or private institution or business. (Grade of Pass/Fail only)
399. **Study Tour (3).** Topics, excursions, and requirements determined by department. May be duplicated for credit; however, only three (3) credits may be applied toward any major or minor. Infrequently scheduled and subject to minimum and maximum numbers. Advance deposit required.
402. **Medical Microbiology (4).** *Prerequisite:* BY 283 with permission of instructor or BY 323. Lecture and laboratory. The study of pathogenic bacteria, viruses, fungi, and parasites of humans and some domestic animals. Emphasis on identification of pathogens, disease processes, and public health.
403. **Immunology (3).** *Prerequisite:* BY 373. *Recommended:* BY 323. The study of immunity and how the immune system responds to specific infectious and non-infectious agents. Includes comparative immunology of invertebrate and vertebrate animals, immunological disorders, and application of immunological techniques.
405. **Animal Behavior (3).** *Prerequisite:* BY 332. Lecture, discussion, demonstration, and library study. The genetic and anatomical basis of behavior, with an emphasis on the impact of behavior on the ecology of animals.
406. **Ornithology (4).** *Prerequisite:* BY 332. Lecture, laboratory, and field study. The history, classification, anatomy, physiology, ecology, and distribution of birds, with an emphasis on field identification and ecology.
407. **Mammalogy (4).** *Prerequisite:* BY 332. Lecture, laboratory, and field study. Aspects of the biology, ecology, taxonomy, and distribution of Southeastern mammals.
408. **Public Policy and Ecosystems (4).** *Prerequisite:* BY 332. Lecture, laboratory, and field study. The course will address the history, evolution, and recent developments in natural resource policy and how it influences ecosystem structure and function. Topics will include fish and wildlife conservation, forest planning and management, agricultural policies, public lands (Bureau of Land Management lands, national forests, national wildlife refuges, national parks, and wilderness areas), endangered species, and policies that influence private lands. The relationship between policies and ecosystem structure and function will be addressed in class and in labs by debates and field exercises.
412. **Plant Reproduction and Development (4).** *Prerequisites:* BY 322, 373. *Recommended:* CY 105, 106, 107, 108. Lecture and laboratory. A study of structural and functional aspects of reproductive and developmental phenomena in vascular plants.
413. **Animal Reproduction and Development (4).** *Prerequisites:* BY 322, 373. *Recommended:* CY 105, 106, 107, 108. Lecture and laboratory. A study of the structural and functional aspects of reproductive and developmental phenomena in animals, with an emphasis on the cellular and molecular mechanisms involved.

415. **Biometrics (3).** *Prerequisites: BY 322, 332, or 373 and MS 204.* An introduction to statistics for biology majors. This course will introduce students to appropriate statistics for analyzing biological data. This course will include how to select random samples, use basic statistical package(s), post-hoc statistical testing and the use of linear regression. The students will be introduced to real-world examples of statistics in ecological, toxicological, and physiological research.
422. **Biology of Cryptogams (4).** *Prerequisites: BY 332, 373.* Lecture, laboratory, field, and library study. The study of blue-green algae, algae, slime molds, bryophytes, and lichens. Extensive field and laboratory identifications.
427. **Independent Studies in Biology (1).** *Prerequisite: BY 370.* May be duplicated for credit for a total of three (3) semester hours, but only 1 hour may be applied to the major. A laboratory or field research project dealing with an aspect of the biological sciences. Biology sponsor required for topic approval and supervision. (Grade of Pass/Fail only)
434. **Animal Systems Physiology (4).** *Prerequisites: BY 373, CY 105, 106, 107, 108. Recommended: CY 109 or 231, 232; one semester of physics.* Lecture and laboratory. A systematic survey of organ system physiology in vertebrates, with an emphasis on systems analysis, biophysics, and bioengineering.
435. **Landscape Ecology and Management (4).** *Prerequisites: BY 332 and MS 204.* Lecture, laboratory, and field study. The role of spatial and temporal heterogeneity in the management of wildlife and natural resources is emphasized. Topics addressed include detection and description of heterogeneity, landscape dynamics and models, ecosystem management, adaptive management, genetics in conservation and management, population dynamics, community management, landscape-level conservation, managing biodiversity, and human interactions with ecosystems.
438. **Freshwater Biology (4).** *Prerequisite: BY 332.* Lecture, laboratory, and field study. An analysis of the unique ecology and biology of the freshwater ecosystems, with extensive field work and a research project involved.
440. **Evolutionary Biology (4).** *Prerequisite: BY 322.* Lecture, laboratory, and field study. A study of the processes and mechanisms which lead to evolutionary change in the biota.
442. **General Entomology (4).** *Prerequisite: BY 332.* Lecture, laboratory, and field study of insects and other arthropods, with an emphasis on the taxonomy, morphology, physiology, and ecology of the insects.
445. **Ecotoxicology (4).** *Prerequisites: BY 332, BY 373. Recommended: BY 322.* Lecture, laboratory and field study. This course is a survey of ecotoxicology: study of the integration of the major processes involved with transport, exposure and response of biological systems to xenobiotics; study of how toxicants mediate interactions between organisms and their biotic and abiotic environments; study of the impact and toxic effects of pollutants on diversity, growth and metabolism of living organisms, populations, communities, and the ecosystem.
450. **Molecular Biology (4).** *Prerequisites: BY 322, 373, or permission of the instructor.* Lecture and laboratory. A study of the processes involved in the expression of biological information at the molecular level. The laboratory includes methods in recombinant DNA technology.
451. **Plant Anatomy (4).** *Prerequisite: BY 373.* Lecture and laboratory. The comparative structural organization of the vegetative and reproductive parts of seed plants, from cells to tissues to systems.
452. **Plant Taxonomy (4).** *Prerequisite: BY 322 or 332.* Lecture, library, laboratory, and field study. Survey of plant nomenclature, identification systems, description, evolution, and classification, with an emphasis on vascular plants.
453. **Dendrology (4).** *Prerequisite: BY 332.* Lecture, laboratory, and field study. The identification, taxonomy, ecological characteristics, distribution, and economic importance of trees native to North America and ornamentals.
454. **Tropical Biology (3).** *Prerequisites: BY 101, 102, 103, 104 and permission of instructor.* An extensive field trip to study the flora and fauna of tropical regions. Advance deposit required.
455. **Plant Ecology (4).** *Prerequisite: BY 322 or 332.* Lecture, laboratory, library, and field study. The study of the major plant communities of the southeastern U.S. and their relationships with major abiotic features, including autecological field studies of plant species and populations.
458. **Herpetology (4).** *Prerequisite: BY 332. Recommended: BY 320.* Lecture, laboratory, and field study. The study of the taxonomy, ecology, physiology, and external anatomy of amphibians and reptiles, with an emphasis on conservation and field methodology.
460. **Ichthyology (4).** *Prerequisite: BY 332.* Lecture, laboratory, and field study. An overview of the evolution, ecology, behavior, physiology, and conservation of fishes.
473. **Advanced Cell Biology (4).** *Prerequisites: BY 373. Recommended: BY 322, CY 231, 232, 362, 363.* Lecture and laboratory. A study of molecular aspects of cell structures and their functions using both descriptive and biochemical approaches.
475. **Economic Botany (4).** *Prerequisites: BY 101, 102, 103, 104.* Lecture, laboratory, and field study. The collection, identification, culture, and preservation of plants for illustration and utilization in the classroom and laboratory.
476. **Invertebrate Zoology (4).** *Prerequisite: BY 332.* Lecture, laboratory, and field study. The study of the systematics, ecology, physiology, and phylogenetic relationships of invertebrate animals.
477. **Cell and Tissue Culture (4).** *Prerequisites: BY 373 and CY 105-108. Recommended: BY 322, 412, 431 and CY 231.* Lecture and laboratory. The study of *in vitro* manipulation of cells, tissues, and organs, both solid and suspension culture, and their application to biotechnology.

478. **Endocrinology (3).** *Prerequisites: BY 373 and CY 231.* General introduction to vertebrate endocrine systems and the variety of chemical messengers involved in the regulation of physiological processes. Topics will include discussions of the history and methodologies of endocrinology, hormone synthesis, physiological effects of hormones, and the mechanisms of actions for various hormones.
479. **Plant Physiology (4).** *Prerequisite: BY 373. Recommended: BY 451.* Lecture and laboratory. The study of mineral nutrition, water relations, photosynthesis, metabolism, and transport in vascular plants.
480. **Advanced Topics in Biology I (1).** *Prerequisites: BY 322, 332, 373.* Lecture and discussion. Topics to be posted in the Biology Department.
481. **Advanced Topics in Biology II (1).** *Prerequisites: BY 322, 332, 373.* Lecture and discussion. Topics to be posted in the Biology Department.
488. **Laboratory Practicum I (2).** *Prerequisites: BY 322, 332, 373 and permission of instructor.* Lecture and laboratories. The design, organization, and implementation of laboratory exercises, the use of appropriate equipment and instructional materials, and laboratory safety and supervision. **Offered fall term only.**
489. **Laboratory Practicum II (1).** *Prerequisites: BY 322 or 332 or 373, and the permission of the instructor.* The organization and implementation of laboratories, including the use of appropriate equipment and instructional materials. (Grade of Pass/Fail only)
496. **Senior Seminar (1).** *Prerequisites: BY 370 and Senior standing.* The capstone course in biology includes a written report, an oral presentation in a symposium format, satisfactory completion of a comprehensive exam for the major, and participation in departmental assessment. Required for Biology major; should be taken in the last semester.

### MARINE BIOLOGY (MBY)

In addition to the requirements for the B.S. in Biology, the Marine Biology concentration requires 16 credit hours of MBY courses which are offered during the **summer only** at the Dauphin Island Sea Lab (DISL). The following courses are required: MBY 415, MBY 486 or MBY 487, MBY 411 or MBY 423; and 4 hours of MBY Group I electives approved by JSU Marine Biology Advisor. Students interested in Marine Biology must consult with the Biology Department's Marine Biology Advisor for information about the concentrations, new courses not listed below, JSU Sea Lab Scholarships, application, and registration. Special fees and course availability are determined by DISL. Registration for DISL courses occurs during February each year.

### MARINE BIOLOGY (MBY) DESCRIPTION OF COURSES

309. **Marine Biology (4).** *Prerequisites: BY 101, 102, 103, 104.* A general survey of the invertebrates, vertebrates, and marine plants as communities with emphasis on local examples of these principal groups. Students will have an opportunity to examine marshland, estuarine, beach, dune, inlet and neritic habitats, and niches. Lecture, laboratory, and field work will be included.
411. **Marine Ecology (4).** *Prerequisites: BY 101, 102, 103, 104, one year of general chemistry, one semester of general physics.* Bioenergetics, community structure, population dynamics, predation, competition, and speciation in marine ecosystems will be studied. Lecture and laboratory work will be included, although considerable time will be spent in field work. Students who have not previously had marine courses may enroll; however, Marine Invertebrate Zoology (MBY 487) or Marine Biology (MBY 309) would be very helpful. Individual species will be studied as they relate to ecological principles which they exemplify, thus providing both a taxonomic and ecologic background.
415. **Marine Botany (4).** *Prerequisites: BY 101, 102, 103, 104.* A general survey of coastal and marine flora with emphasis on taxonomy, morphology, physiology, ecology, and distribution. Community structure in various ecosystems will be studied. Students will have an opportunity to examine pelagic, marshland, estuarine, beach, sand dune, and inlet niches. Lecture and laboratory work will be included, and a collection will be required.
416. **Introduction to Oceanography (4).** *Prerequisites: One year of general biology or one year of general zoology and one year of general botany; one year of general chemistry; one semester of physics; and one semester of college algebra.* An introduction to biological, chemical, geological, and physical aspects of the sea.
423. **Marsh Ecology (4).** *Prerequisite: Advanced undergraduate standing in biology.* A study of the floral and faunal elements of various marine marsh communities with an emphasis on the interaction of physical and biological factors. Lecture, lab, and field trips.
427. **Marine Technical Methods I (2).** *Prerequisite: Advanced undergraduate standing.* An introduction to instruments and procedures normally utilized aboard a marine research vessel. These include physical, biological, chemical, and geological parameter measurements and sample collections. Basic positioning and communication procedures are included.
428. **Marine Technical Methods II (2).** *Prerequisite: Advanced undergraduate standing.* An introduction to the laboratory methodology associated with the usual chemical parameters of nutrient analysis. The laboratory approach will be pursued, ship-board and specific practical skills developed.

435. **Coastal Zone Management (2).** *Prerequisite: Advanced undergraduate standing.* A review of ecological features and of management policies for coastal communities with a description of relevant federal and state programs.
439. **Coastal Wetlands Ecology (4).** *Prerequisites: BY 101, 102, 103, 104.* This course will focus on coastal and near shore wetlands, with an emphasis on biogeochemical processes, ecological function, and conservation. Lecture and laboratory.
459. **Shark and Ray Biology (2).** *Prerequisites: BY 101, 102, 103, 104.* This course provides an introduction to the biology of sharks and rays, with special emphasis on regional shark fauna and field techniques. Topics covered include, but are not restricted to, evolution and systematics of chondrichthyan fishes, physiology, reproduction and life history, diet, ecology, and conservation biology. Lecture and lab experiences.
460. **Dolphins and Whales (2).** *Prerequisites: BY 320 and MBY 486.* This course enables students to make rapid, accurate, and thoughtful use of a customized reference file and laboratory and field notes to respond to questions about the classification, anatomy, and ecology of marine mammals of the order Cetacea. Lecture and laboratory. (Not open to students with credit in MBY 481.)
461. **Marine Behavioral Ecology (4).** *Prerequisite: BY 332. Recommended: MS 204.* This course examines how animal behavior is influenced by and interacts with its environment, and the ecological and evolutionary significance of these behaviors in a marine setting. Lecture, laboratory, and field exercises (some overnight).
462. **Marine Protozoology (4).** *Prerequisites: BY 101, 102, 103, 104 or MBY 309.* A study of the major groups of protists from a variety of marine habitats, including their taxonomy, structure, and ecology of methods of identification. Lectures, laboratory, and field trips.
464. **Introduction to Neurobiology (4).** *Prerequisite: Advanced undergraduate standing.* An introduction to the neuroanatomy and neurophysiology of marine invertebrates and vertebrates. A neurosim computer package is used to help illustrate the basic principles and to allow a detailed exploration of neurophysiology and neural networks. Lecture and lab.
465. **Biology and Conservation of Marine Turtles (2).** *Prerequisites: BY 101, 102, 103, 104.* This course will cover the identification, distribution, nesting behavior, migratory behavior, population biology and genetics, evolution, and conservation of marine turtles. Lecture and laboratory. Overnight field trip and special fees apply.
481. **Marine Mammals (4).** *Prerequisites: BY 101, 102, 103, 104.* This course will cover the evolutionary history, taxonomy/classification, anatomy, physiology, behavior, conservation/management issues, and research techniques related to marine mammals. Lecture and laboratory. (Not open to students with credit in MBY 460.)
486. **Marine Vertebrate Zoology (4).** *Prerequisites: BY 101, 102, 103, 104.* A study of marine fishes, reptiles and mammals, with an in-depth, comprehensive treatment of their systematics, zoogeography, and ecology. Lectures will encompass subject matter on a nonregional basis. Field and laboratory work will stress the vertebrate fauna of the northern Gulf of Mexico. Most of the courses will be devoted to fishes. Students will have an opportunity to assemble a collection of vertebrate species.
487. **Marine Invertebrate Zoology (4).** *Prerequisites: BY 101, 102, 103, 104.* An examination of the systematics, ecology, physiology, and phylogenetic relationships of locally occurring marine invertebrate taxa. Lecture, laboratory, and field work required. Opportunity to acquire collections of local fauna.
491. **Directed Research (2).** *Prerequisite: Consent of instructor.* Students may enroll by special arrangement to do research in any of the subject areas of marine science currently being offered at the Sea Laboratory.
- NOTE:** Other Marine Science courses taught at the Sea Lab located on Dauphin Island, Alabama, include GY 329, Coastal Climatology, and GL 390, Marine Geology. Descriptions of these courses are listed under the Department of Physical and Earth Sciences.

**PLANS OF STUDY  
BACHELOR OF SCIENCE  
MAJOR: BIOLOGY**

**I. Plan of Study: CONCENTRATION IN ECOLOGY AND ENVIRONMENTAL BIOLOGY**

*In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations.*

**FRESHMAN YEAR**

Fall	Spring
EH 101 ..... 3	EH 102 ..... 3
BY 101 ..... 3	BY 102 ..... 3
BY 103 ..... 1	BY 104 ..... 1
CY 105 ..... 3	CY 106 ..... 3
CY 107 ..... 1	CY 108 ..... 1
HY sequence <sup>2</sup> ..... 3	HY sequence <sup>2</sup> ..... 3
Behavioral/Social Science <sup>1</sup> ..... 3	CS 201 or higher ..... 3
STU 101 ..... 0	
17	17

**SOPHOMORE YEAR**

Fall	Spring
BY Core <sup>3</sup> ..... 4	BY Core <sup>3</sup> ..... 4
BY 370 ..... 2	EH 141 ..... 3
MS 112 or higher ..... 3	MS 113 <sup>4</sup> ..... 3
CY 231 ..... 4	CY 232 ..... 4
EH literature <sup>5</sup> ..... 3	EH literature <sup>5</sup> ..... 3
16	17

**JUNIOR YEAR**

Fall	Spring
BY Core <sup>3</sup> ..... 4	BY Group II <sup>7</sup> ..... 4
BY Group I <sup>6</sup> ..... 4	BY or minor electives <sup>8</sup> ..... 4
BY or minor electives <sup>8</sup> ..... 4	Social/Behavioral Science <sup>1</sup> ..... 3
PHS 201 ..... 3	PHS 202 ..... 3
PHS 203 ..... 1	PHS 204 ..... 1
16	15

**SENIOR YEAR**

Fall	Spring
BY or minor electives <sup>8</sup> ..... 13	BY or minor electives <sup>8</sup> ..... 13
Fine Arts <sup>9</sup> ..... 3	BY 496 ..... 1
16	14

**TOTAL HOURS: 128**

<sup>1</sup>Select from AN 224, EC 221, EC 222, GY 120, GY 220, PSC 100, PSY 201, PSY 222, or SY 221

<sup>2</sup>Select from HY 101 & 102 or 201 & 202

<sup>3</sup>Select from BY 322, 332, or 373

<sup>4</sup>MS 113 is a prerequisite for PHS 201

<sup>5</sup>Select 2 from EH 201, 202, 203, 204, 219, 220, 231, or 232

<sup>6</sup>BY Group I: Select from BY 412, 413, 434, 445, 473, 478, 479, 487

<sup>7</sup>BY Group II: Select from BY 320, 323, 406, 407, 422, 442, 452, 453, 458, 460 or 476

<sup>8</sup>All Biology majors must complete a minor. Most electives must be at 300/400 level; some electives in this program may be offered only during summer.

<sup>9</sup>Select from ART 202, MU 233, DR 242, or FL 101

**II. Plan of Study: CONCENTRATION IN MARINE BIOLOGY**

*In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations.*

**FRESHMAN YEAR**

Fall	Spring
BY 101 .....3	BY 102 .....3
BY 103 .....1	BY 104 .....1
CY 105 .....3	CY 106 ..... 3
CY 107 .....1	CY 108 .....1
EH 101 .....3	EH 102 .....3
HY sequence <sup>1</sup> .....3	HY sequence <sup>1</sup> .....3
STU 101.....0	CS 201 or higher ..... 3
14	17

**SOPHOMORE YEAR**

Fall	Spring
BY Core <sup>2</sup> .....4	BY Core <sup>2</sup> .....4
BY 370 .....2	EH 141 .....3
MS 112 or higher .....3	MS 113 <sup>3</sup> .....3
CY 231 .....4	CY 232..... 4
EH literature <sup>4</sup> .....3	EH literature <sup>4</sup> .....3
16	17

**JUNIOR YEAR**

Fall	Spring
BY Core <sup>2</sup> .....4	Minor electives <sup>5</sup> .....7
PHS 201 & 203. ....4	PHS 202 & 204. ....4
Social/Behavioral Science <sup>6</sup> .....3	Social/Behavioral Science <sup>6</sup> .....3
Minor ..... 3	
14	14

**SUMMER BETWEEN JUNIOR AND SENIOR YEAR  
IN RESIDENCE AT DAUPHIN ISLAND SEA LAB**

BY Group II:	MBY 486 or MBY 487 .....4
	MBY 415 .....4
	8

**SENIOR YEAR**

Fall	Spring
Minor electives <sup>5</sup> .....9	Minor electives <sup>5</sup> .....7
Fine Arts <sup>7</sup> .....3	BY 496 .....1
12	8

**SUMMER FOLLOWING SENIOR YEAR  
IN RESIDENCE AT DAUPHIN ISLAND SEA LAB**

MBY 411 or 423 .....4
MBY Group I Elective <sup>8</sup> .....4
8

**TOTAL HOURS: 128**

<sup>1</sup>Select from HY 101 & 102 or 201 & 202

<sup>2</sup> Select from BY 322, 332, or 373

<sup>3</sup> MS 113 is a prerequisite for PHS 201

<sup>4</sup> Select 2 from EH 201, 202, 203, 204, 219, 220, 231, or 232

<sup>5</sup> All Biology majors must complete a minor. Most electives must be at 300/400 level; some electives in this program may be offered only during summer.

<sup>6</sup> Select from AN 224, EC 221, EC 222, GY 120, GY 220, PSC 100, PSY 201, PSY 222, or SY 221

<sup>7</sup> Select from ART 202, MU 233, DR 242, or FL 101

<sup>8</sup> MBY Group I elective (see Marine Biology Program Advisor for current list of approved courses)

### III. Plan of Study: CONCENTRATION IN PRE-HEALTH PROFESSIONAL BIOLOGY

*In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations.*

#### FRESHMAN YEAR

Fall	Spring
EH 101 .....3	EH 102 .....3
BY 101 .....3	BY 102 .....3
BY 103 .....1	BY 104 .....1
CY 105 .....3	CY 106..... 3
CY 107 .....1	CY 108. ....1
MS 112 or higher .....3	MS 113 <sup>2</sup> .....3
Fine Arts <sup>1</sup> .....3	EH 141 .....3
STU 101.....0	
17	17

#### SOPHOMORE YEAR

Fall	Spring
EH literature <sup>3</sup> .....3	EH literature <sup>3</sup> .....3
HY sequence <sup>4</sup> .....3	HY sequence <sup>4</sup> .....3
CY 231 .....4	CY 232..... 4
BY Core: BY 373 .....4	BY Core: BY 322 .....4
CS 201 or higher .....3	Social/Behavioral Science <sup>6</sup> .....3
17	17

#### JUNIOR YEAR

Fall	Spring
BY Group II: BY 320 .....4	BY Group I: BY 434 .....4
BY 370 .....2	PHS 202 <sup>5</sup> .....3
PHS 201 <sup>3</sup> .....3	PHS 204. ....1
PHS 203 .....1	BY or minor electives <sup>7</sup> .....8
BY or minor electives <sup>7</sup> .....4	
14	16

#### SENIOR YEAR

Fall	Spring
BY Core: BY 332 .....4	BY or minor electives <sup>7</sup> .....12
BY or minor electives <sup>7</sup> .....10	BY 496 .....1
Social/Behavioral Science <sup>6</sup> .....3	
17	13

**TOTAL HOURS: 128**

<sup>1</sup> Select from ART 202, MU 233, DR 242, or FL 101

<sup>2</sup> MS 113 or higher math

<sup>3</sup> Select 2 from EH 201, 202, 203, 204, 219, 220, 231, or 232

<sup>4</sup> Select from HY 101 & 102 or 201 & 202

<sup>5</sup> Student may elect to take calculus-based PHS 211/212 in place of PHS 201/202

<sup>6</sup> Select from AN 224, EC 221, EC 222, GY 120, GY 220, PSC 100, PSY 201, PSY 222, or SY 221

<sup>7</sup> All Biology majors must complete a minor. Most electives must be at 300/400 level; some electives in this program may be offered only during summer.

Also recommended: BY 323, 402, 403, 450; CY 362; minor in chemistry or special studies

**IV. Plan of Study: CONCENTRATION IN ORGANISMAL BIOLOGY**

*In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations.*

**FRESHMAN YEAR**

Fall	Spring
EH 101 .....3	EH 102 .....3
BY 101 .....3	BY 102 .....3
BY 103 .....1	BY 104 .....1
CY 105 .....3	CY 106 .....3
CY 107 .....1	CY 108 .....1
HY sequence <sup>1</sup> .....3	HY sequence <sup>1</sup> .....3
Social/Behav Sci <sup>2</sup> .....3	CS 201 or higher .....3
STU 101 .....0	
_____	_____
17	17

**SOPHOMORE YEAR**

Fall	Spring
BY Core <sup>3</sup> .....4	BY Core <sup>3</sup> .....4
BY 370 .....2	EH 141 .....3
MS 112 or higher .....3	MS 113 <sup>4</sup> .....3
CY 231 .....4	CY 232 .....4
EH literature <sup>5</sup> .....3	EH literature <sup>5</sup> .....3
_____	_____
16	17

**JUNIOR YEAR**

Fall	Spring
BY Core <sup>3</sup> .....4	BY Group II <sup>7</sup> .....4
BY Group I <sup>6</sup> .....4	BY or minor electives <sup>8</sup> .....4
BY or minor electives <sup>8</sup> .....4	Social/Behavioral Science <sup>2</sup> .....3
PHS 201 & 203 .....4	PHS 202 & 204 .....4
_____	_____
16	15

**SENIOR YEAR**

Fall	Spring
BY or minor electives <sup>8</sup> .....13	BY or minor electives <sup>8</sup> .....13
Fine Arts <sup>9</sup> .....3	BY 496 .....1
_____	_____
16	14

**TOTAL HOURS: 128**

<sup>1</sup>Select from HY 101 & 102 or 201 & 202

<sup>2</sup>Select from AN 224, EC 221, EC 222, GY 120, GY 220, PSC 100, PSY 201, PSY 222, or SY 221

<sup>3</sup>Select from BY 322, 332, or 373

<sup>4</sup>MS 113 is a prerequisite for PHS 201

<sup>5</sup>Select 2 from EH 201, 202, 203, 204, 219, 220, 231, or 232

<sup>6</sup>BY Group I: Select from BY 403, 412, 413, 434, 445, 473, 478, 479

<sup>7</sup>BY Group II: Select from BY 320, 323, 406, 407, 422, 442, 451, 452, 453, 458, 460, 476

<sup>8</sup>All Biology majors must complete a minor. Most electives must be at 300/400 level; some electives in this program may be offered only during summer.

<sup>9</sup>Select from ART 202, MU 233, DR 242, or FL 101

V. Plan of Study: CONCENTRATION IN CELLULAR AND MOLECULAR BIOLOGY <sup>10,11,12</sup>

*In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations.*

**FRESHMAN YEAR**

Fall	Spring
BY 101 .....3	BY 102 .....3
BY 103 .....1	BY 104 .....1
CY 105 .....3	CY 106.....3
CY 107 .....1	CY 108 .....1
EH 101 .....3	EH 102 .....3
MS 112 or higher .....3	MS 113 <sup>3</sup> .....3
EH 141 .....3	Fine Arts <sup>1</sup> .....3
STU 101.....0	
_____	_____
17	17

**SOPHOMORE YEAR**

Fall	Spring
BY core (322 or 373) <sup>2</sup> .....4	BY core (322 or 373) <sup>2</sup> .....4
CY 231 .....4	CY 232..... 4
CS 201 or higher .....3	Soc./Behav. Sci <sup>1</sup> .....3
HY seq <sup>3</sup> .....3	HY seq <sup>3</sup> .....3
EH Literature <sup>6</sup> .....3	EH Literature <sup>6</sup> .....3
_____	_____
17	17

**JUNIOR YEAR**

Fall	Spring
BY Group II: BY 450 .....4	BY Group II: BY 323.....4
PHS 201 <sup>1</sup> .....3	PHS 202 <sup>1</sup> .....3
PHS 203 .....1	PHS 204 .....1
BY core (332) <sup>4</sup> .....4	BY or Minor electives <sup>9</sup> .....7
BY 370 .....2	
BY or Minor electives <sup>9</sup> .....3	
_____	_____
17	15

**SENIOR YEAR**

Fall	Spring
BY elective .....4	BY Group I <sup>8</sup> .....4
BY or minor electives <sup>9</sup> .....8	BY or minor electives <sup>9</sup> .....8
Soc/Behav. Sci <sup>1</sup> .....3	BY 496 .....1
_____	_____
15	13

**TOTAL HOURS: 128**

<sup>1</sup>Select from ART 202, MU 233, DR 242, or FL 101

<sup>2</sup>BY Core

<sup>3</sup>MS 113 or higher math

<sup>4</sup>Select from AN 224, EC 221, EC 222, GY 120, GY 220, PSC 100, PSY 201, PSY 222, or SY 221

<sup>5</sup>Select from HY 101 & 102 or 201 & 202

<sup>6</sup>Select 2: EH 201, 202, 203, 204, 219, 220, 231, or 232

<sup>7</sup>Student may elect to take calculus-based PHS 211/212 in place of PHS 201/202

<sup>8</sup>BY Group I: Select from BY 412, 413, 434, 473

<sup>9</sup>All Biology majors must complete a minor. Most electives must be at 300/400 level.

<sup>10</sup>A chemistry minor, including Biochemistry (CY 362 and/or 363) is highly recommended for students intending to pursue a graduate degree in Cellular and Molecular Biology.

<sup>11</sup>Biochemistry (CY 362) is highly recommended for this concentration

<sup>12</sup>BY327 and/or BY 427 is/are highly recommended for this concentration

**PLANS OF STUDY  
BACHELOR OF ARTS  
MAJOR : BIOLOGY**

**I. Plan of study: CONCENTRATION IN NATURALIST BIOLOGY  
with law enforcement minor.**

*In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations.*

**FRESHMAN YEAR**

Fall		Spring	
EH 101 .....	3	EH 102 .....	3
BY 101 .....	3	BY 102 .....	3
BY 103 .....	1	BY 104 .....	1
CY 105 .....	3	CY 106 .....	3
CY 107 .....	1	CY 108 .....	1
CJ 101 .....	3	CJ 202 .....	3
Elective .....	3	Wellness <sup>2</sup> .....	3
STU 101 .....	0		
	17		17

**SOPHOMORE YEAR**

Fall		Spring	
BY Core <sup>3</sup> .....	4	BY Core <sup>3</sup> .....	4
BY 370 .....	2	EH 141 .....	3
MS 112 or higher .....	3	MS 108, 110, 113 or higher Math .....	3
EH literature <sup>4</sup> .....	3	EH literature <sup>4</sup> .....	3
SH Elective <sup>5</sup> .....	3	SH Elective <sup>5</sup> .....	3
	15		16

**JUNIOR YEAR**

Fall		Spring	
BY Core <sup>3</sup> .....	4	BY Group II <sup>7</sup> .....	3
BY Group I <sup>6</sup> .....	3	BY elective .....	3
CJ 363 .....	3	CJ 370 .....	3
CS 201 or higher .....	3	Social / Behavioral Sciences <sup>8</sup> .....	3
HY sequence <sup>1</sup> .....	3	HY Sequence <sup>1</sup> .....	3
	16		15

**SENIOR YEAR**

Fall		Spring	
BY elective 300+ .....	7	BY 496 .....	1
CJ 402 .....	3	CJ 460 .....	3
Social / Behavioral Sciences <sup>8</sup> .....	3	CJ elective 300+ .....	3
Elective .....	3	300+ elective .....	6
	16	Elective .....	3
			16

**TOTAL HOURS: 128**

<sup>1</sup>Select from HY 101 & 102 or HY 201 & 202

<sup>2</sup>Select from MSC 113, 115, 116, FCS 215 or HPE 109

<sup>3</sup>Select from BY 322, 332, 373

<sup>4</sup>Select 2 from EH 201, 202, 203, 204, 219, 220, 231, or 232

<sup>5</sup>See Academic Advisor when selecting Spanish electives (this will count as Fine Art requirement)

<sup>6</sup>For Group I courses, select from BY 403, 412, 413, 434, 445, 473, 478, or 479

<sup>7</sup>For Group II courses, select from BY 301, 302, 320, 323, 406, 407, 422, 442, 451, 452, 453, 458, 460, 475, or 476

<sup>8</sup>Select from AN 224, EC 221, EC 222, GY 120, GY 220, PSC 100, PSY 201, PSY 222, or SY 221

## II. Plan of study: CONCENTRATION IN GENERAL BIOLOGY

*In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations.*

### FRESHMAN YEAR

Fall	Spring
EH 101 .....3	EH 102 .....3
BY 101 .....3	BY 102 .....3
BY 103 .....1	BY 104 .....1
CY 105 .....3	CY 106 .....3
CY 107 .....1	CY 108 .....1
HY sequence <sup>1</sup> .....3	HY Sequence <sup>1</sup> .....3
Elective .....3	Wellness <sup>2</sup> .....3
STU 101 .....0	
17	17

### SOPHOMORE YEAR

Fall	Spring
BY Core <sup>3</sup> .....4	BY Core <sup>3</sup> .....4
BY 370 .....2	EH 141 .....3
MS 112 or higher .....3	MS 108, 110, 113 or higher Math .....3
EH literature <sup>4</sup> .....3	EH Literature <sup>4</sup> .....3
FL Elective <sup>5</sup> .....3	FL Elective <sup>5</sup> .....3
15	16

### JUNIOR YEAR

Fall	Spring
BY Core <sup>3</sup> .....4	BY Group II <sup>8</sup> .....4
BY Group I <sup>7</sup> .....4	BY or Minor electives <sup>7</sup> .....9
BY or Minor electives <sup>7</sup> .....4	Social / Behavioral Sciences <sup>9</sup> .....3
CS 201 or higher .....3	
15	16

### SENIOR YEAR

Fall	Spring
BY or Minor elective <sup>7</sup> .....13	BY or Minor elective <sup>7</sup> .....15
Social / Behavioral Sciences <sup>9</sup> .....3	BY 496 .....1
16	16

**TOTAL HOURS: 128**

<sup>1</sup>Select from HY 101 & 102 or HY 201 & 202

<sup>2</sup>Select from MSC 113, 115, 116, FCS 215, or HPE 109

<sup>3</sup>Select from BY 322, 332, 373

<sup>4</sup>Select 2 from EH 201, 202, 203, 204, 219, 220, 231, or 232

<sup>5</sup>See Academic Advisor when selecting Foreign Language electives (this will count as Fine Arts requirement)

<sup>6</sup>For Group I courses, select from BY 403, 412, 413, 434, 445, 473, 478 or 487

<sup>7</sup>Most minor electives must be at the 300/400 level

<sup>8</sup>For Group II courses, select from BY 301, 302, 320, 323, 406, 407, 422, 442, 451, 452, 453, 458, 460, 475, or 476

<sup>9</sup>Select from AN 224, EC 221, EC 222, GY 120, GY 220, PSC 100, PSY 201, PSY 222, or SY 221

ALBERT P. BREWER DEPARTMENT OF  
CRIMINAL JUSTICE

126 BREWER HALL

Department Head: Richards P. Davis  
Professors: Davis, Kania, R. Mellen  
Associate Professor: Morgan  
Assistant Professors: Buttram, Lang  
Instructors : Haney, N. Mellen, Patton

CRIMINAL JUSTICE MAJOR

The Department of Criminal Justice merges liberal arts and professional studies into a well-balanced curriculum. A Bachelor of Science with a major in Criminal Justice is a solid foundation for law school or graduate study, in addition to being a superb preparation for employment in the rapidly growing field of criminal justice. The core courses provide a basic understanding of the nature of crime and society's reaction to crime, as well as an in-depth investigation of the various components within the Criminal Justice System. Studies in concentration areas provide students the opportunity to acquire knowledge and skills which enhance future employment and serve as a basis for advanced studies.

ACADEMIC CONCENTRATIONS

**Concentration in Corrections.** This concentration prepares students for working with individuals who have been placed under the custody of the correctional system. The purpose of corrections is two-fold: to punish individuals who have committed crimes and to rehabilitate those same individuals for successful re-entry into society. Studies in juvenile justice examine the treatment of juvenile offenders.

**Concentration in Forensic Investigations.** This concentration prepares students for careers as criminal investigators or crime scene technicians. It provides insights into basic investigative skills, as well as specialized skills in drug, homicide, sex offenses, child abuse, and arson investigations. The main theme of Forensic Investigations, however, is crime scene processing, identification and collection of physical evidence, and the presentation of evidence into a court of law.

**Concentration in Law Enforcement.** This concentration focuses on the study of the role and functions of police organizations as agents of crime prevention in a democratic society, including an understanding of police history, organizational structure, policies, planning, and coordination between various police organizations. The importance of establishing and maintaining positive, supportive relations with the public is an area of special interest.

PLAN OF STUDY

The Bachelor of Science with a major in Criminal Justice requires the following, which meets the general academic regulations: a minimum of 128 hours consisting of 50 hours of General Studies courses; 18 hours of Criminal Justice core courses; 24 hours in a Criminal Justice concentration; and 36 hours of minor and elective courses.

**NOTE:** Criminal Justice majors **must** obtain a minor outside the department. Students selecting the Forensic Investigations concentration must select a minor in one of the following disciplines: Accounting, Biology, Chemistry, Computer Science, Computer Information Systems, Finance, Geography, Physics, or Psychology. Chemistry is the minor most highly recommended. A second minor in Spanish is encouraged. For all other Criminal Justice concentrations, Spanish is the preferred minor or co-minor.

Criminal Justice Core Curriculum

18 hours required for all CJ majors

CJ 101	Introduction to Criminal Justice	3 hours
CJ 201	Criminal Law	3 hours
CJ 300	Theories of Crime Causation	3 hours
CJ 302	Research Methods	3 hours
CJ 325	Criminal Courts	3 hours

Select one course from the following:

Senior Internship: CJ 471 or 472 or Senior Seminar: CJ 494, 495 or 496	3 hours
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Corrections Concentration 24 hours

CJ 200	Introduction to Corrections	3 hours
CJ 310	Criminal Behavior and Rehabilitation Strategies	3 hours
CJ 311	Correctional Techniques	3 hours
CJ 315	Community-Based Corrections	3 hours
CJ 322	Juvenile Agencies	3 hours
	+9 hours of CJ electives	

Forensic Investigations Concentration 24 hours

CJ 202	Introduction to Law Enforcement	3 hours
CJ 304	Introduction to Forensic Investigations	3 hours

CJ 430	Criminalistics	3 hours
CJ 456	Homicide Investigation	3 hours
CJ 460	Criminal Investigation +9 hours of CJ electives	3 hours

**Law Enforcement Concentration 24 hours**

CJ 202	Introduction to Law Enforcement	3 hours
CJ 363	Foundations of Law Enforcement	3 hours
CJ 370	Police Administration	3 hours
CJ 402	Police and Community Relations	3 hours
CJ 460	Criminal Investigation +9 hours of CJ electives	3 hours

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Courses credited within the core or a concentration will not be credited within another concentration or minor.

Students who are not majoring in Criminal Justice may minor in Criminal Justice, Corrections, Forensic Investigations, or Law Enforcement. Each minor requires a minimum of 21 credit hours. A minor in Criminal Justice consists of CJ 101, CJ 200, CJ 201, CJ 202, CJ 300, CJ 325 and 3 hours of CJ electives. A minor in Corrections consists of CJ 101, CJ 200, CJ 310, CJ 311, CJ 315, CJ 322, and 3 hours of CJ electives. A minor in Forensic Investigations consists of CJ 101, CJ 202, CJ 304, CJ 430, CJ 456, CJ 460, and 3 hours of CJ electives. A minor in Law Enforcement consists of CJ 101, CJ 202, CJ 363, CJ 370, CJ 402, CJ 460, and 3 hours of CJ electives.

**PLAN OF STUDY  
BACHELOR OF SCIENCE  
MAJOR: CRIMINAL JUSTICE**

*In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations.*

**FRESHMAN YEAR**

Fall	Spring
EH 101 .....3	EH 102 .....3
HY sequence .....3	HY sequence .....3
Natural Science .....4	Natural Science .....4
CJ 101 .....3	CJ 200 or 202 .....3
MS 108/110/112.....3	MS 204 or approved alternate .....3
STU 101.....0	
16	16

**SOPHOMORE YEAR**

Fall	Spring
Literature* .....3	Literature* .....3
EH 141 .....3	Fine Arts elective .....3
SY 221 .....3	PSY 201 .....3
CS 201 .....3	CJ 201 .....3
CJ 300 .....3	Elective .....3
CJ Concentration .....3	
18	15

**JUNIOR YEAR**

Fall	Spring
CJ 325 .....3	CJ Concentration .....6
CJ 302 .....3	Minor/electives 300+ .....9
PSC 100 .....3	
CJ Concentration .....6	
General electives/minor .....3	
18	15

## SENIOR YEAR

Fall	Spring
CJ Concentration .....6	Minor/electives 300+ ..... 12
Minor/electives 300+ .....9	Internship (CJ 471 or CJ 472) or Senior Seminar (CJ 494, CJ 495, or CJ 496) ..... 3
15	15
<b>TOTAL HOURS: 128</b>	

\*Select from these courses: EH 201, 202, 203, 204, 219, 220, 231, or 232.

### CRIMINAL JUSTICE (CJ) DESCRIPTION OF COURSES

#### Core Courses:

- 101. **Introduction to Criminal Justice (3).** Survey of the agencies and processes involved in the Criminal Justice System: the police, the prosecutor, the public defender, the courts, and corrections.
- 201. **Criminal Law (3).** *Prerequisite: CJ 101.* Analysis of the origin and sources of criminal law as well as definition of parties to crimes and affirmative defenses. Discussion of specific crimes of common law and in-state and national statutes.
- 300. **Theories of Crime Causation (3).** An examination of biological, psychological, sociological, political and economic theories of crime causation.
- 302. **Research Methods (3).** *Prerequisite: CJ 101.* An introduction to the theory, design, collection, and analysis of data in criminal justice research.
- 325. **Criminal Courts (3).** *Prerequisite: CJ 101.* An analysis of the roles of the Criminal Courts in their interactions with the other major participants in the Criminal Justice System; court structure and functions; selected critical cases and key issues, such as sentencing and plea bargaining.

#### Courses That May Count as Requirements or Electives Toward Any One Concentration or Minor:

- 200. **Introduction to Corrections (3).** *Prerequisite: CJ 101.* Philosophical foundations of punishments, historical developments in American penology. Corrections in contemporary America.
- 202. **Introduction to Law Enforcement (3).** *Prerequisite: CJ 101.* The development of contemporary American police. Law enforcement role, philosophy, values, culture, discretion, organizational control, accountability, corruption, misconduct, police-community relations, and future trends.
- 205. **Legal Research and Records (3)** *Prerequisite: CJ 101.* Study of essential legal research skills and knowledge about acquiring legal information from the statutes, case-law books, legal records, on-line data retrieval services and other legal resources, and essential content of key reports and documents currently used in the courts.
- 304. **Introduction to Forensic Investigations (3).** *Prerequisite: CJ 101.* Introduction to the development of Forensic Investigations and its contribution to the Criminal Justice System and the applications of the scientific discipline to the examination and analysis of physical evidence.
- 310. **Criminal Behavior and Rehabilitation Strategies (3).** *Prerequisite: CJ 200.* A study of criminal behavior from a psychological perspective with correctional rehabilitation programs and strategies serving as the focus. The effectiveness of various correctional institutions and their programs and strategies will also be examined.
- 311. **Correctional Techniques (3).** *Prerequisite: CJ 200.* An introduction to correctional strategies and the theories on which they are based. Among the topics discussed are counseling, psychotherapy and psychoanalysis, humanistic psychology, learning theory, and behavior modification. This course will also provide an in-depth examination of both assessment and counseling strategy effectiveness with offender populations.
- 315. **Community Based Corrections (3).** *Prerequisite: CJ 200.* A survey of non-institutional correctional programs focusing on alternatives to incarceration in community settings. Programs reviewed include prerelease, parole, halfway houses, restitution centers, probations, and community correctional centers.
- 322. **Juvenile Agencies (3).** *Prerequisite: CJ 200 or CJ 205.* Examination of the historical aspects of the juvenile justice system with emphasis on juvenile rights in the present juvenile court system and pretrial techniques.
- 352. **Evidence (3).** *Prerequisite: CJ 325.* Analysis of the rules of evidence, their origins, and types. Constitutional limitations upon their use, methods of safeguarding their value. The trial and techniques for testifying.
- 353. **Correctional Law (3).** *Prerequisite: CJ 200 or CJ 205.* Legal problems of the convicted from conviction to release; presentence investigation, sentencing, civil rights loss and restoration, and other legal problems confronting the convicted.

361. **Constitutional Law (3).** *Prerequisite: CJ 101.* Analysis of the Constitution of the United States as it affects the law enforcement and corrections field, to wit: the 1st, 4th, 5th, 6th, and 8th Amendments to the Constitution.
362. **Constitutional Law II (3).** *Prerequisites: CJ 361.* A study of constitutional issues in the administration of justice, fair trial guarantees, humane punishment, and the civil and criminal liability of criminal justice professionals.
363. **Foundations of Law Enforcement (3).** *Prerequisite: CJ 202.* An examination of the foundations of American law enforcement from its cultural heritage in England to the present.
370. **Police Administration (3).** *Prerequisite: CJ 202.* Organizational structure and coordination of all branches of law enforcement agencies; police, staff, and auxiliary function; their interrelationships and interdependence.
395. **Crime Prevention (3).** *Prerequisite: CJ 101.* Analysis of the roles of the Criminal Justice System and the private sector in preventing crime. Community involvement as a source of preventing crime. Crime prevention strategies and techniques for evaluating prevention programs.
399. **Study Tour (3).** Topics, excursions, and requirements determined by the department. May be duplicated for credit up to 6 hours. Infrequently scheduled and subject to minimum and maximum numbers. Advance deposit required.
400. **Protective Systems (3).** *Prerequisite: CJ 101.* The criminal threat, protective system concept; systems configuration and cost benefit analysis of currently available protective systems.
402. **Police and Community Relations (3).** *Prerequisite: CJ 202.* Study of the numerous and complex factors involved in the area of human relations as it affects policing and police management.
405. **Judicial Administration (3).** *Prerequisite: CJ 325.* Advanced study of the workings of the state and federal court systems, with a focus on the administrative support agencies of the courts, including the responsibilities of clerks of courts, court administrators, with an examination of careers in the court systems of the state and federal government, and the issues facing the judiciary.
406. **Retail Security (3).** *Prerequisite: CJ 101.* Employee thefts, shoplifting, robbery, burglary, shortages, special fire problems, insurance recovery.
410. **Correctional Administration (3).** *Prerequisite: CJ 200.* Advanced study of the workings of the state and federal prison systems and local jails. The application of the theories of organization, management and public administration to the operations of correctional units, policy matters, and other issues facing corrections.
411. **Victimless Crimes (3).** *Prerequisite: Junior standing with 18 hours in CJ.* Study of controversial area of law that deals with consensual crimes. Topics to be included for discussion may be homosexuality; drugs; obscenity and pornography; prostitution; gambling. The history of legislative enactments and judicial decisions will be dealt with, as well as the social and political implications of enforcement to both police agencies and their clients.
417. **Criminal and Deviant Behavior (3).** *Prerequisite: CJ 300 or SY 320.* An analysis of criminal and deviant behavior systems with an emphasis on classical and contemporary theories of crime causation.
420. **Probation and Parole (3).** *Prerequisites: CJ 200 or CJ 202.* Development, organization, operation of probation and parole with emphasis on alternatives to incarceration.
430. **Criminalistics (3).** *Prerequisite: CJ 304.* Methods of scientific analysis, comparison and identification of physical evidence; blood and body fluids, casts and molds, detective dyes, fingerprints, and trace evidence.
456. **Homicide Investigation (3).** *Prerequisite: CJ 304.* Special problems involved in homicide investigation, including the forensic autopsy.
460. **Criminal Investigations (3).** *Prerequisite: CJ 202 or CJ 304.* Practical application of investigative techniques for specific crimes, such as sex offenses, murder, robbery, arson, assaults, and fraud cases.
463. **Crime Scene Processing (3).** *Prerequisite: CJ 304.* In-depth and practical look at various types of physical evidence and methods by which evidence is collected and transported to forensic crime laboratories.
464. **Interviews and Interrogations (3).** *Prerequisite: CJ 200 or 202 or 205 or 304.* Discussions and practical exercises covering the various techniques used by criminal justice practitioners to elicit information from witnesses and criminal suspects.
466. **Drugs of Abuse (3).** *Prerequisites: BY 102/104 or CY 106/108; and CJ 430 or NU 306.* Drugs of abuse, their field identification and drug abuse education.
467. **Trace Evidence (3).** *Prerequisites: BY 102/104 or CY 106/108; and CJ 430.* Review of techniques used in the analysis of hairs, fibers, and minute items of evidence related to criminal matters.
471. **Internship in Criminal Justice (3).** *Prerequisites: Junior standing, consent of Internship Director, and only for students majoring in Criminal Justice.* Supervised work experience in an approved Criminal Justice agency. The student is required to attend a pre-announced orientation meeting prior to beginning internship. (Not open to in-service personnel or those with prior CJ work experience unless approved by Internship Director.)
472. **Senior Internship in Criminal Justice (3).** *Prerequisites: Senior standing, consent of Internship Director, and only for students majoring in Criminal Justice.* Supervised work experience in an approved Criminal Justice agency. The student is required to attend a pre-announced orientation meeting prior to beginning internship and additional scheduled meetings with the Internship Director. (Not open to in-service personnel or those with prior CJ work

experience unless approved by Internship Director.) This is a Senior Capstone course, and satisfactory work requires completing the EPP and other senior exit requirements.

- 482. Independent Study in Criminal Justice (3).** *Prerequisite: Junior standing with 18 hours in CJ.* An opportunity for the advanced student to explore an area of special interest. Student must have a supervising criminal justice faculty member agree to a written proposal or outline for an appropriate topic for study and then must secure the approval of the Department Head.
- 485, 486. Advanced Seminar in Criminal Justice (3) (3).** *Prerequisite: Junior standing with 18 hours in CJ.* An in-depth study of current issues in Criminal Justice. The content will vary each semester. Students seeking admission must have advanced standing and secure approval of Department Head. May be duplicated for credit for a total of six (6) semester hours.
- 488. Seminar Series (1 hour each).** *Prerequisite: Junior standing with 18 hours in CJ.* Seminars and tutorials dealing with current topics and issues in the field. No more than 6 hours credit may be earned.
- 494. Senior Seminar I (3).** *Prerequisites: Senior standing in the Criminal Justice major and completion of all other criminal justice core requirements.* Capstone course which utilizes the student's knowledge and academic skills, including pursuing archival research, journal keeping, note taking and report writing to address a topic or issue of contemporary interest in criminal justice or one of its sub-fields. While the topic or issue may change with each offering, the skills exercised will be those needed to prepare the senior for careers in criminal justice professions.
- 495. Senior Seminar II (3).** *Prerequisites: Senior standing in the Criminal Justice major and completion of all other criminal justice core requirements.* Capstone course which utilizes the student's knowledge and academic skills, including pursuing archival research, journal keeping, note taking and report writing to address a topic or issue of contemporary interest in criminal justice or one of its sub-fields. While the topic or issue may change with each offering, the skills exercised will be those needed to prepare the senior for careers in criminal justice professions.
- 496. Senior Seminar III (3).** *Prerequisites: Senior standing in the Criminal Justice major and completion of all other criminal justice core requirements.* Capstone course which utilizes the student's knowledge and academic skills, including pursuing archival research, journal keeping, note taking and report writing to address a topic or issue of contemporary interest in criminal justice or one of its sub-fields. While the topic or issue may change with each offering, the skills exercised will be those needed to prepare the senior for careers in criminal justice professions.

## DEPARTMENT OF DRAMA (DR)

Accredited by the National Association of Schools of Theatre

344 STONE CENTER

Department Head: Randal Blades

Professor: Clements

Associate Professor: Blades

Assistant Professors: Boynton, Ivey, Peck

The mission of the Jacksonville State University Drama Department is to provide a strong liberal arts education while promoting respect for and appreciation of the art of theatre and film. Through an academically rigorous and supportive, creative environment, we cultivate critical thinking, analysis, and skills for artistic expression needed to build a career, while providing opportunities for higher level development within our students' chosen specialties. We also seek to produce a multifaceted, high quality, and challenging theatrical experience on our stage to enrich the university and surrounding communities.

The Department of Drama offers a Bachelor of Arts with a concentration in either Performance or Design/Technical and minors in Drama or Film and Entertainment Technology. All students majoring in Drama must complete fifty-one (51) hours to include thirty-three (33) hours of core classes in addition to eighteen (18) hours within their concentration. A Bachelor of Arts in Drama requires a minimum of 128 semester hours.

### Core:

All Drama majors must complete the following core classes: DR 241, 242, 250, 284, 342, 350, 361, 362, 375, 450, 463, and 490; EH 373 or EH 410.

### Concentrations:

Performance – Eighteen (18) hours, which must include DR 290, 354, 441 and nine (9) hours of Performance electives.

Design/Technical – Eighteen (18) hours, which must include DR 243, 270; six (6) hours from the following design courses: DR 371, 372, 377, 378, 386, 389 or 486; and six (6) hours of Design/Technical electives.

**Drama Minor:** The requirements for a minor in Drama are twenty-one (21) hours of Drama courses, which must include DR 241, 242, 250, 284, 350, 361, 362, 450, and three (3) hours of Drama electives.

**Film and Entertainment Technology Minor:** The requirements for a minor in Film and Entertainment Technology are a minimum of twenty-four (24) hours, which must include DR 230, 270, 284, 330, EH 409, and nine (9) hours of electives chosen from DR 370, 371, 372, 377, 378, 385, 386, 387, 389, 391, 392, 398, 430, 486, 487, or 498. This minor is not available to Drama majors.

**Film Technology Certificate:** The requirements for a certificate in Film Technology include the following fifteen (15) hours: DR 230, 231, 232, 235, and three hours of electives by advisement.

**DRAMA (DR)**  
**DESCRIPTION OF COURSES**

230. **Introduction to Filmmaking (3).** Study of the filmmaking process from concept to completion with special emphasis on the relationship between various jobs of the production team.
231. **Film Technology Foundations I (3).** Introduction to film production and technical crew positions. Best practices and techniques in lighting, audio, grip and other production positions with an emphasis on recognized safety standards.
232. **Film Technology Foundations II (3).** *Prerequisite: DR 231.* Advanced techniques in film production and technical work.
235. **Camera and Film Techniques (3).** Introduction to camera set up, operation, types and lenses. Basic film techniques, including composition, setting up shots, and introductory editing.
241. **Acting (3).** Focuses upon the actor's approach to developing a role through points of training, including improvisation, character and scene study, and analysis.
242. **Introduction to the Theatre (3).** The appreciation of theatre as an expressive art form and as a business. A general survey of acting, directing, designing, playwriting, and audience participation.
243. **Play Analysis for Designers and Technicians (3).** Study of plays to develop artistic and technical solutions for production.
- 250, 350, 450. **Student's Theatre (1) (1) (1).** Active participation in the department's plays in the areas of scenery construction, painting, lighting, costumes, and make-up. Three laboratory hours per week arranged with drama faculty.
252. **Honors Introduction to the Theatre (3).** Advanced strategies for developing an appreciation for theatre as an art form.
- 255, 355, 455. **Music Theatre Dance (1) (1) (1).** Dance for musical theatre: a practical application of dance and movement in performance. Choreography includes works from such composers as Gershwin, Bernstein, Sondheim, and Webber.
260. **Summer Theatre Workshop (3).** An intensive course in which students work on all phases of theatre production from building scenery to performing in a major play which will be produced for the public during the last week of the course.
270. **Computer Graphics for the Theatre I (3).** *Prerequisite: CS 201.* Training in the use of CAD software with emphasis on specific applications of CAD to Theatre Design and Production.
- 281, 381, 481. **Dramatic Laboratory (1) (1) (1).** Experiments in the basics of acting. Limit 1 hour credit per semester.
284. **Stage Crafts (3).** Introduction to physical theatres, scenery construction and painting, properties, lighting, and sound.
290. **Speech for the Performing Arts (3).** A course designed to improve diction, pronunciation, accent, reading, and intonation.
330. **Introduction to Film Technology (3).** *Prerequisite: DR 230.* An introduction to the current technology used in film and video production. The course examines current trends in cinematography, editing, lighting, grip and sound. This course will include a small group production using modern production equipment.
331. **Techniques for High Definition Cinematography (3).** Advanced lighting and electronic imagery control in high definition cinematography. Experiences with light meters and digital single-lens reflex cameras.
342. **Directing (3).** *Prerequisites: DR 241 and permission of instructor.* Fundamental principles of theatrical directing.
343. **Auditioning and Portfolio (3).** Exercises in preparing actors, directors, designers, technical directors, and stage managers for auditions and portfolio review.
344. **Careers in Performance (3).** *Prerequisites: DR 241, 290 and 343.* An advanced acting course concentrating on the performance and business aspects of acting professionally.
351. **Playwriting (3).** *Prerequisites: DR 242 and permission of instructor.* Exercise in dramaturgical technique and the completion of a stage-worthy script by each student. (Offered in alternate years, Spring.)
354. **Movement for the Stage (3).** The examination and application of the theories of stage movement and the metakinetic process. Emphasis placed on the imaginative and artistic use of the whole body in the development of acting roles, including stage combat.
- 361, 362. **Theatre History (3) (3).** Conditions under which the great plays of the world have been produced. Audience, actors, patrons, physical conditions, architecture, and the relation to the other arts. 1st semester: Antiquity to 1600. 2nd semester: 1600 to present.
370. **Computer Graphics for the Theatre II (3).** *Prerequisite: DR 270.* Training in the use of 3D Graphics and paint programs with emphasis on Scenic Design and Costume Design.
- 371, 372. **Theatrical Design I & II (3) (3).** Principles and problems of staging in arena, thrust, proscenium, and flexible theatres. Designs for settings of plays in models and perspective rendering.

375. **Stage Management (3)**. A practical study of stage management duties, responsibilities, procedures, and organization during auditions, rehearsals, production meetings, and performance.
- 377, 378. **Costume Design I & II (3) (3)**. Exploration of basic design elements and fabrics and their culmination into stage costume: period, character, and stylized. (Offered in alternate years, Spring.)
383. **Puppetry (3)**. Scope and development of puppetry throughout the world. Practical experience in creating and performing with puppets.
385. **Stage Carpentry (3)**. A practical carpentry course that explores specialized wood-working and finishing techniques for the stage, including scenery, furniture, tools, and materials.
386. **Stage Lighting (3)**. Principles and problems of lighting for mood and effect in play production.
387. **Stage Makeup (3)**. Creation of straight, character, middle-age, old-age, beards, rubber prosthesis, and stylized makeup to aid the actor.
388. **Stage Costume History (3)**. History of costume as to styles, period fabrics, construction, and movement for theatrical performance.
389. **Sound Design and Production (3)**. Introduction to the principles of sound and the equipment used in sound production with an emphasis on digital audio, computer based editing, and Midi.
391. **Scene Painting (3)**. Techniques of scene painting to include drop painting, perspective illusion, lighting consideration, budget, and equipment.
392. **Scene Painting II (3)**. Advanced techniques of scene painting; molding, frescos, glazes, glosses, foliage, metals, and skies.
398. **Costume Techniques (3)**. Basics of construction of stage costumes, alteration and repair of existing costumes, and the implementation of professional costume shop practices.
399. **Study Tour (3)**. Topics, excursions, and requirements determined by department. May be duplicated for credit; however, only three (3) credits may be applied toward any major or minor. Infrequently scheduled and subject to minimum and maximum numbers. Advance deposit required.
430. **Film Technology (3)**. *Prerequisites: DR 230 and DR 330*. Fundamental theories and practices of cinematography and editing for film and video. Practical cinematography exercises will utilize small, professional grade HD cameras in location settings. Editing exercise will utilize professional offline editing software to complete a small group-produced short film.
441. **Acting II (3)**. *Prerequisites: DR 241 and DR 290*. Advanced acting scenes and problems of various periods.
445. **Child Drama (3)**. Instruction in the supervision of pre-school through elementary grade children in the spontaneous expression of ideas and characters through the theatrical form. Emphasis on the contribution of informal drama to the total development of the child.
- 451, 452, 453. **Design-Technical Practicum (1) (1) (1)**. *Prerequisites: DR 250, 350, 450*. Major production assignments in the department's plays in the areas of scenery, management, painting, lighting, costumes, and makeup arranged with drama faculty.
463. **Dramatic Theory (3)**. An investigation into the major theories of drama from Aristotle to the present. Extensive reading of play scripts as well as analytical works.
465. **Musical Theatre (3)**. A historical study of musical theatre in America from 1735 to the present. Emphasis is on theme, composers, performers, producers, and choreographers.
475. **Special Problems in Drama (3)**. *Prerequisite: Successful completion of 30 hours of drama or by advisement*. Individually designed and supervised research projects or production assignments.
- 482, 483, 484. **Performance Practicum (1) (1) (1)**. *Prerequisites: DR 281, 381, 481*. Major performance roles in the areas of acting, directing, movement, and playwriting.
486. **Stage Lighting II (3)**. *Prerequisite: DR 386*. Advanced lighting techniques and design problems.
487. **Stage Makeup II (3)**. *Prerequisite: DR 387*. Advanced makeup techniques for theatre, film, and television. Creation of false teeth and prosthetics for three dimensional, old-age, and specialty makeup.
490. **Senior Practicum (3)**. *Prerequisites: Senior standing, 39 hours in drama, and instructor's permission*. Directed practicum in one of these areas: acting, directing, design, management, technology, or theatre education.
498. **Costume Techniques II (3)**. *Prerequisite: DR 398*. A continuation of DR 398. Methods of transforming a costume into a stage costume. Projects in period draping, construction, corseting, and trimming.

**PLAN OF STUDY**  
**BACHELOR OF ARTS**  
**MAJOR: DRAMA – PERFORMANCE CONCENTRATION**

*In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations.*

**FRESHMAN YEAR**

Fall	Spring
EH Comp 101 .....3	EH Comp 102 .....3
HY Sequence* .....3	EH 141, Oral Communications .....3
MS 108 .....3	HY Sequence* .....3
DR 242, Intro to Theatre .....3	MS 110 or 112 .....3
DR 241, Acting.....3	DR 284, Stage Crafts .....3
STU 101.....0	DR 250, Students Theatre .....1
15	16

**SOPHOMORE YEAR**

Fall	Spring
EH 201 or 203 Literature .....3	EH 202 or 204 Literature .....3
Natural Science and lab* .....4	Natural Science and lab* .....4
PSY 201, Intro to Psychology.....3	Social/Behavioral Science .....3
DR 290, Speech for the Performer .....3	CS 201 .....3
DR 350, Students Theatre .....1	DR 450, Students Theatre .....1
ART 202 or MU 233** .....3	DR 354, Movement for Stage .....3
17	17

**JUNIOR YEAR**

Fall	Spring
Minor/Electives .....12	DR 441, Acting II.....3
DR 361, Theatre History .....3	DR 362, Theatre History .....3
DR 375, Stage Management.....3	Minor/Electives .....6
18	15

**SENIOR YEAR**

Fall	Spring
DR 463, Dramatic Theory .....3	EH 373 or 410 .....3
Minor/Electives .....6	Minor/Electives .....6
Drama Concentration *** .....6	Drama Concentration *** .....3
15	15

**TOTAL HOURS: 128; thirty-six hours must be 300+**

\_\_\_\_\_  
 \*Must be a sequence  
 \*\* Must take Art 202 or Music 233 to satisfy the Fine Arts requirement  
 \*\*\* Select nine hours from Performance concentration courses

**PLAN OF STUDY**  
**BACHELOR OF ARTS**  
**MAJOR: DRAMA – DESIGN/TECHNICAL CONCENTRATION**

*In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations.*

**FRESHMAN YEAR**

Fall	Spring
EH Comp 101 .....3	EH Comp 102 .....3
HY Sequence* .....3	HY Sequence* .....3
MS 108 .....3	MS 110 or 112 .....3
DR 242, Intro to Theatre .....3	DR 241, Acting .....3
DR 284, Stage Crafts ..... 3	DR 250, Students Theatre .....1
STU 101.....0	PSY 201, Intro to Psychology .....3
15	16

**SOPHOMORE YEAR**

Fall	Spring
Literature .....3	Literature .....3
Natural Science* .....4	Natural Science* .....4
DR 243, Play Analysis .....3	Social/Behavioral Science .....3
DR 350, Students Theatre..... 1	ART 202 or MU 233** .....3
CS 201, Intro to Info Tech .....3	DR 270, Comp Graphics for Theatre.....3
EH 141, Oral Communications .....3	
17	16

**JUNIOR YEAR**

Fall	Spring
Minor/Electives ..... 12	Drama Concentration*** .....3
DR 361, Theatre History .....3	DR 362, Theatre History .....3
DR 375, Stage Management .....3	Minor/Electives .....6
	DR 342, Directing .....3
	DR 450, Students Theatre ..... 1
18	16

**SENIOR YEAR**

Fall	Spring
DR 463, Dramatic Theory .....3	EH 373 or 410 .....3
Minor/Electives .....6	Minor/Electives .....6
Drama Concentration *** .....6	Drama Concentration *** .....3
	DR 490, Senior Practicum .....3
15	15

**TOTAL HOURS: 128; thirty-six hours must be 300+**

\* Must be a sequence

\*\* Must take Art 202 or Music 233 to satisfy the Fine Arts requirement

\*\*\* Select six hours from DR 371, 372, 377, 378, 386, 389, or 486 and six additional hours from Design/Technical concentration courses

**DEPARTMENT OF EMERGENCY MANAGEMENT (EM)**

**JSU McCLELLAN BUILDING 3181**

**Department Head: Jeffrey R. Ryan**

**Professor: Kushma**

**Associate Professors: Lowe, Ryan**

**Assistant Professors: Huang, Islam, Mann, Richards, Van Slyke**

The Department of Emergency Management offers a 120-hour Bachelor of Science degree in Emergency Management. The degree is designed to prepare students for careers related to emergency and disaster management in local, state, or federal government, business, and volunteer organizations. The major area of the program requires a minimum of thirty (30) hours of Emergency Management courses, including EM 301, EM 321, EM 331, EM 411, EM 471, EM 481, and twelve hours of approved EM 300+ electives.

**MINOR IN EMERGENCY MANAGEMENT (EM)**

The Department of Emergency Management offers a minor in Emergency Management for students outside of the Emergency Management major. The minor consists of eighteen (18) hours of Emergency Management courses which must include EM 301, EM 321, EM 411 and nine hours of approved EM 300+ electives.

**MINOR IN HOMELAND SECURITY (HS)**

The Department of Emergency Management offers a minor in Homeland Security. The minor consists of eighteen (18) hours of courses which must include EM 305 and 15 hours of electives to be chosen from the following list of Emergency Management and Public Safety Telecommunications courses: EM 309, EM 341, EM 351, EM 365, EM 420, EM 450, EM 461, EM 475, EM 483 and/or PST 314. EM 301 is also a Homeland Security minor elective option for non-Emergency Management majors. A major in Emergency Management with a minor in Homeland Security will consist of a minimum of forty-eight (48) hours of Emergency Management/Public Safety Telecommunications courses for the major and minor areas alone.

**PUBLIC SAFETY TELECOMMUNICATIONS (PST)**

The Department of Emergency Management offers a minor in Public Safety Telecommunications. The minor consists of twenty-one (21) hours of Public Safety Telecommunications courses, including PST 110, PST 311, PST 312, PST 313, PST 314, PST 328, and three hours of approved PST electives.

**PLAN OF STUDY**

**BACHELOR OF SCIENCE  
MAJOR: EMERGENCY MANAGEMENT**

*In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations.*

**FRESHMAN YEAR**

Fall	Spring
EH 101 .....3	EH 102 .....3
PSY 201 .....3	Social/Behavioral Science .....3
Natural Science sequence .....4	Natural Science sequence .....4
Fine Arts .....3	MS 108 or MS 110 or MS 112 .....3
Minor .....3	Minor .....3
STU 101.....0	
16	16

**SOPHOMORE YEAR**

Fall	Spring
Literature .....3	Literature .....3
HY sequence .....3	HY Sequence .....3
Elective .....3	EM 300+ elective .....3
EM 301 .....3	EM 321 .....3
Minor .....3	Minor .....3
15	15

## JUNIOR YEAR

Fall	Spring
EM 411 .....3	EH 141 or Fine Arts elective .....3
EM 331 .....3	EM 300+ elective .....3
Minor .....3	Area V elective .....3
Area V electives .....3	Minor / elective .....3
Elective ..... 3	
15	15

## SENIOR YEAR

Fall	Spring
EM 300+ elective .....6	EM 481 .....3
Area V electives .....7	EM 471 .....3
Elective .....3	Area V electives .....6
16	12

**TOTAL HOURS: 120**

### A PROGRAM OF STUDY FOR A BACHELOR OF SCIENCE IN EMERGENCY MANAGEMENT WITH A MINOR IN PUBLIC SAFETY TELECOMMUNICATIONS

#### Major

EM 301	Introduction to Emergency Management	3 hours
EM 321	Disaster Mitigation & Preparedness	3 hours
EM 331	Populations at Risk	3 hours
EM 411	Disaster Response & Recovery	3 hours
EM 471	Emergency Management Capstone course	3 hours
EM 481	Research in Disasters & Emergency Management	3 hours
	Approved EM 300 + Electives	<u>12 hours</u>
	<b>Total EM Courses</b>	<b>30 hours</b>

#### PST Minor

PST 110	Intro to Public Safety Communications	3 hours
PST 311	Interpersonal Communications	3 hours
PST 312	Legal Issues in Public Safety Communications	3 hours
PST 313	Introduction to Crisis Intervention	3 hours
PST 314	Introduction to Weapons of Mass Destruction	3 hours
PST 328	Technical Writing for Public Safety Communications	3 hours
	Approved PST electives	<u>3 hours</u>
	<b>Total PST Courses</b>	<b>21 hours</b>

#### Area I

EH 101	English Composition	3 hours
EH 102	English Composition	<u>3 hours</u>
	<b>Total Area I</b>	<b>6 hours</b>

#### Area II

Fine Arts		3 hours
Literature		6 hours
Speech/Humanities and Fine Arts elective*		<u>3 hours</u>
	<b>Total Area II</b>	<b>12 hours</b>

#### Area III

MS 108 Exploring Math		
Or MS 110 Finite Math		
Or MS 112 Precalculus Algebra		3 hours
Approved Laboratory Science Sequence		<u>8 hours</u>
	<b>Total Area III</b>	<b>11 hours</b>

#### Area IV

	History Sequence	6 hours
PSY 201	Intro to Psychology	3 hours
	Approved Social/Behavioral Science elective*	<u>3 hours</u>
	<b>Total Area IV</b>	<b>12 hours</b>

**Area V**

Courses to be chosen from an approved list.\*

19 hours

**General Electives**9 hours**Total****120 hours**

\*See advisor for elective choices in Area II, IV, and V.

**EMERGENCY MANAGEMENT (EM)  
DESCRIPTION OF COURSES**

- 301. Introduction to Emergency Management (3).** Overview of emergency management, including a history of the field, key legislation impacting practice and current issues in the field.
- 305. Introduction to Homeland Security (3).** Overview of the administrative, legislative, and operational elements of homeland security programs and processes, including a review of homeland security history and policies.
- 309. Emergency Response to WMD Event (3).** This course will focus on the potential use of Weapons of Mass Destruction by terrorists and the proper preparedness and response by communities and jurisdictions. This course is appropriate for members of the emergency response community, emergency management, and members of the general population desiring knowledge about the real and ever-present danger of terrorist activity within the United States.
- 321. Disaster Mitigation and Preparedness (3).** *Prerequisite: EM 301.* Methods and techniques used to lessen the potential impact of disasters and improve readiness to respond. Concepts related to preparedness actions, such as planning, training, public education and disaster exercises, are reviewed as well as mitigation principles related to sustainability and the built environment.
- 325. Management of Information Security (3).** Study of information security and digital forensics using practical case studies. Emphasis is on developing security policies, security management and practices, utilization of digital forensic tools and techniques, risk management, security project management, and protection mechanisms. Major components of the course are hands-on projects on digital forensic investigation and security management case studies. (EM 325 is cross-listed with CS 307, but only one course can be counted for credit.)
- 331. Populations at Risk (3).** *Prerequisite: EM 301.* Examines social vulnerability to disaster and the needs of at-risk populations. Methods to reduce vulnerabilities and build local capacity are considered.
- 341. Legal Fundamentals in Emergency Management and Homeland Security (3).** Introduction to the legislative foundation of domestic homeland security and emergency management processes. Significant legislation will be reviewed with special consideration for the concepts that define legal duties and consequences for first responders and emergency managers.
- 346. Emergency Medical Operations for CBRNE Incidents (3).** An in-depth study for emergency medical responders that focuses on chemical, biological, radiological, nuclear, and explosive (CBRNE) incident management; treatment of victims of exposure to chemical, biological, and radiological hazards, as well as explosions. Hands-on training modules provide the emergency medical responder with the knowledge and skills to perform triage operations while in personal protective equipment (PPE) and to perform decontamination of victims. Students are required to complete the FEMA resident course PER-267 at the Center for Domestic Preparedness.
- 347. Framework for Healthcare Emergency Management (3).** An in-depth study that provides healthcare personnel with a foundation of knowledge in healthcare emergency management. The course focuses on standards, regulations, and organizations affecting healthcare entities and the integration of government agencies and stakeholders; disaster preparedness planning; staffing and personnel; emergency management issues for healthcare; personal protective equipment (PPE) and decontamination; evacuation, isolation, and quarantine; ethical issues; financial issues; public affairs; and training, drills, and exercises. Students are required to complete the FEMA resident course AWR-900 at the Center for Domestic Preparedness.
- 348. Hospital Emergency Response Training for Mass Casualty Incidents (3).** An in-depth study designed to provide medical operation guidance to healthcare professionals who may become involved in a mass casualty incident (MCI) as a result of a natural, accidental, or intentional event. The course focuses on safe and effective emergency medical response to MCI. Students are required to complete the FEMA resident course PER-902 at the Center for Domestic Preparedness.
- 349. Radiological Emergency Response Operations (3).** An in-depth study of safe and effective response to radiological incidents. Topics include radiological concepts, radiological response team operations, commercial nuclear power facilities, plume modeling, radiological instrumentation, personal protective equipment (PPE) and decontamination. Students are required to complete the FEMA resident course PER-904 at the Center for Domestic Preparedness.
- 351. Understanding Terrorism: Characteristics and Perspectives (3).** The history, methods, and philosophy of terrorism are reviewed. Emphasis is placed on extremism as a foundation for terrorist behavior, types of terrorism, and how governments and law enforcement agencies respond to terrorism. Case studies of terrorist activities and implications for emergency response are highlighted.

361. **Hazardous Materials in Emergency Management (3).** *Prerequisite: EM 301.* Looks at key legislation regarding storage, handling, and transportation of hazardous materials, and reviews how the emergency management community plans, responds, and recovers when hazardous material incidents occur.
365. **Public Information in Emergency Management (3).** A review of the skills needed to effectively deal with the public and media before, during, and after an emergency event. Topics will include: role and responsibilities of the Public Information Officer, understanding the roles and responsibilities of the media, conducting awareness campaigns, writing news releases, public speaking, granting interviews, media management, and dealing with high-profile incidents.
366. **Social Media in Emergency Management (3).** Overview of the history and evolution in social media in emergency management. Provides an understanding of social media and its uses in all aspects of emergency management. Students will conduct research of better practices and how to grow an agency's social media presence. Additional topics addressed will include: identifying challenges and how to overcome them, choosing the best social media avenues for an agency and topic, and using private sector practices to enhance public sector outreach and effectiveness.
371. **Public Administration and Policy in Emergency Management (3).** *Prerequisite: EM 301.* Focuses upon the administrative roles of local, state and federal government in times of disaster and the importance of intergovernmental relations. The policy making process and the historical evolution of disaster policy is reviewed.
381. **Social Dimensions of Disaster (3).** *Open to all majors across the disciplines.* Overview of how individuals, groups, families, organizations, communities, and countries handle disasters before, during, and after they occur.
401. **Economics of Disaster (3).** *Prerequisite: EM 301.* The costs of natural and manmade disasters around the world, the existing policy frameworks for reducing these costs in the industrialized world, and the ways in which these policies might be adapted for the developing world.
411. **Disaster Response and Recovery (3).** *Prerequisite: EM 301.* How people, groups, organizations, communities and governments manage disasters in the immediate aftermath and recover from their effects, including social, physical, business, and infrastructure problems as well as intra- and inter-organizational issues. (EM 411 is cross-listed with CS 412, but only one course can be counted for credit.)
415. **Information Technology in EM (3).** The role of technology in the support of emergency planning, response, recovery and mitigation efforts. Application of current and emerging web-based technologies. Topics include GIS, GPS, simulation and modeling software, decision support and the application of current and emerging web-based technologies.
420. **Exercise Design and Evaluation (3).** Introduction to the fundamentals of exercise design, development and implementation. Includes a review of the different types of exercises, how they are used, and how they are conducted. Provides students with the knowledge and skills necessary to develop and conduct disaster exercises that test a community's emergency response plan and capabilities.
421. **Medical Disaster and Emergency Management (3).** *Prerequisites: EM 301 and EM 411.* Reviews structure and functions of health care delivery systems in mass casualty situations with specific attention to intra- and inter-organizational management, ranging from emergency response triage to inter-organizational systemic management issues.
425. **Emergency Operations Center Management (3).** *Prerequisites: EM 301 and EM 411.* This course is designed to introduce the student to Emergency Operations Center (EOC) management. The student will learn accepted concepts, methodologies, and strategies of EOC design and management and apply this knowledge to operations-based scenarios. The successful student will complete this course possessing a baseline understanding of the purpose and scope of an EOC operation and the components necessary for the physical facility and staff.
450. **Management Systems in Disaster (3).** Integration of emergency functions, response structures, technology use, information management, and decision-making. The National Response Plan and the National Incident Management System will be emphasized.
451. **Disaster Planning (3).** *Prerequisite: EM 301.* Engages students in elements of effective disaster planning and various types of emergency plans.
461. **Critical Infrastructures (3).** Identifies what constitutes critical infrastructure, including cyber as well as physical infrastructure. Evaluation of strategies for promoting vulnerability assessments and risk reduction, and protection of critical infrastructures are examined. (EM 461 is cross-listed with CS 461, but only one course can be counted for credit.)
471. **Emergency Management Capstone Course (3).** *Prerequisite: Senior standing in program and department approval. Intended to be taken in final semester.* Integrates prior coursework in an applied and experiential framework through case studies, exercises, applied research, and analytical activities.
475. **Current Issues in Homeland Security (3).** The examination of current issues and concerns with Homeland Security, including upcoming National Special Security Events that mandate comprehensive security planning and response capabilities. Challenges of implementing and maintaining homeland security will be covered.
481. **Research in Disasters and Emergency Management (3).** Overview of research principles and approaches to the study of disaster and how to understand and apply scholarly work from the field of disaster research.

- 483. Planning and Preparedness for Homeland Security (3).** Introduction to the homeland security planning process and related preparedness activities of assessing and enhancing preparedness for terrorism for organizations and communities. Topics include technical and organizational requirements, risk and vulnerability assessments, continuity of operations, communication and information management, capacity building needs, funding strategies, and recovery systems. Particular attention is given to multi-sector coordination requirements for incident management. For first responder agencies, healthcare systems, and public and private sector response systems.
- 496. Directed Studies in Emergency Management (3).** *Prerequisite: Permission of instructor and approval of department head.*
- 497. Internship in Emergency Management (3).** *Prerequisite: EM 301. Permission of instructor and internship coordinator.* Provides direct experience and application of principles, concepts and theories acquired in coursework in a supervised emergency management setting.

## PUBLIC SAFETY TELECOMMUNICATIONS (PST) DESCRIPTION OF COURSES

- 110. Introduction to Public Safety Communications (3).** An introduction to telephone and radio communications skills, interpersonal communications, and basics of call handling, legal issues in public safety communications and technologies for the telecommunicator. This course will provide the information necessary to understand the job of a public safety telecommunicator and is the foundation to begin working in police, fire, EMS or combined service communications center.
- 115. Emergency Medical Dispatching (3).** Preparation needed to receive a call requesting assistance for emergency medical services (EMS) and allocate community resources in response to such request. Upon course completion, the individual should be qualified to provide pre-arrival medical instructions to the caller and post-dispatch information to the responding agencies.
- 220. Technologies in Public Safety Communications and 911 (3).** An overview of the rapidly advancing technology in public safety communications. Computer aided dispatch, radio and telephony advances, mapping and GPS technology, and information management technology keynote this course.
- 221. Role in Hostage Negotiations (3).** The principles required for critical thinking to deal with a hostage situation until a highly trained negotiator assumes control.
- 222. Handling of Hazardous Materials Event (3).** The knowledge necessary in handling events involving hazardous material(s). Upon course completion, the individual should have basic knowledge in communication management of special circumstances involving chemical, biological and radiological hazardous events.
- 226. Advanced Public Safety Communications (3).** An in-depth study of the operations of telecommunication centers.
- 311. Interpersonal Communications (3).** Introduction to the basic concepts of interpersonal communications and oral communications necessary for the public safety telecommunicator to interact with public safety personnel and citizens of the community. Techniques to overcoming barriers, achieving effective communications, handling difficult callers, listening effectively, and resolving conflicts will be addressed.
- 312. Legal Issues in Public Safety Communication (3).** An overview of legal issues impacting the public safety communication and telecommunication industry. The course will present a series of case studies which present a rational prospective of the liability exposure of the public safety telecommunicator. The course shall provide the legal principles and processes that, when adhered to, should guide toward minimizing liability exposure.
- 313. Introduction to Crisis Intervention (3).** The critical principles in support of crisis intervention and techniques for handling domestic violence, potential suicide, hostage, and civil unrest situations as a public safety communicator.
- 314. Introduction to Weapons of Mass Destruction (3).** The basic principles needed to respond to a Weapons of Mass Destruction (WMD) event. The course will present the role and responsibilities of the public safety telecommunicator in recognizing and dispatching assistance for aid while maintaining documentation of calls for assistance resulting from a WMD incident.
- 323. Human Resource Management in Public Safety Communications (3).** An overview of Human Resource Management issues, including principles of human resources, federal employee regulations, and Americans with Disabilities Act.
- 325. Management Principles in Public Safety Communications (3).** An overview of basic management principles, including organizational theory, operational models, supervision, evaluations, and steps for effective leadership.
- 327. Location Identification.** An in-depth examination of rapidly advancing technologies used today to determine the exact location of people contacting 9-1-1 telecommunicators for emergency assistance. Students will learn of the systems in use and how to apply them.
- 328. Technical Writing for Public Safety Communicators (3).** An introduction to the basic concepts for professional writing. Emphasis on writing skills necessary for the preparation of standard operating procedures, training documents, and related materials.

## DEPARTMENT OF ENGLISH (EH)

215 STONE CENTER

Department Head: Robert Felgar

Professors: Davis, Di Biase, Felgar, Gates, Hug, Jones, Reed, Whitton

Associate Professors: Gray, Harding, Kostova, Porter

Instructors: Bailey, Bennett, Burns, Christopher, Cleveland, Dean, Foster,

Johnson, Maloney, Mecham, Moersch, Myer, Prickett, Richardson,

Rimpsey, Sasser, Sellers, Walker, K. Williams, L. Williams

The Bachelor of Arts in English requires 120 hours.

The major requires 36 hours of English courses, which must include the following:

*Survey Courses* (12 hours): EH 201, 202, 203, 204

*Foundation Course* (3 hours): EH 403 or 404

*English Literature Courses* (9 hours at 300/400 level): 3 hours of American literature and 6 hours of non-American literature

*English Language Courses* (6 hours): two of the following: EH 307, 321, 344, 415, 441

*English Electives* (6 hours): two courses chosen from any 300+ level course offered except EH 345, 348, 351, 352, and 360.

For the English major, a minimum of 12 of the 36 hours must be taken at the 300/400 level at JSU. The English major also requires 12 hours of a single foreign language (FL 101, 102, 201, 202). Students who plan careers in education should contact the Teacher Service Center in the College of Education, Ramona Wood Hall, Room 207, for information on certification and admission to education.

**Minor in English:** A minimum of 24 hours, which must include EH 101 or 103, 102 or 104, 141, 203, 204; one of the following: EH 201, 202, 219 or 220; and 6 hours of 300+ level electives. This minor is not available for students majoring in English. A minimum of 6 of the 24 hours must be taken at the 300/400 level at JSU. Electives may be chosen from any 300+ English courses offered except EH 345, 348, 351, 352, and 360.

**Minor in Business and Technical Writing:** A minimum of 24 hours, which must include EH 101 or 103, 102 or 104, 141, 201, 202, 322, 344, and 415. This minor is not available for students majoring in English.

**Minor in Creative Writing:** A minimum of 24 hours, which must include EH 101 or 103, 102 or 104, 141, 201, 202, 344, 351 or 352, and 415. This minor is not available for students majoring in English.

### ENGLISH (EH) DESCRIPTION OF COURSES

NOTE: All entering students who have not successfully completed or been awarded credit for EH 101 are required to submit scores from the American College Test (ACT). Placement in entry-level English will be determined by the following:

Placement	ACT English Sub Test
LS 095	11 or below
LS 095 or EH 100 (following advisement)	12 - 13
EH 100	14 - 17
EH 101	18 or above
EH 103	25 or above

**100. Basic English Skills (3).** A study of basic English grammar and writing skills. Credit granted but not toward major. Not open to students who have completed EH 101 or 103. **Grades for EH 100: A, B, C, NC.**

**101, 102. English Composition (3) (3).** Two semesters. *Prerequisite to all other English courses except EH 141.* Spelling, grammar, punctuation, vocabulary, and the strategies of effective writing. Introduction to literature. In 102: a research paper. **Grades for EH 101 and 102: A, B, C, NC.** *EH 102 prerequisite: successful completion of EH 101 or 103.*

**103, 104. Honors English Composition (3) (3).** Two semesters. *Substitutes for EH 101, 102.* Advanced strategies of effective writing. Advanced introduction to literature. In 104: a research paper. Admission requirements: 103, see requirements above; 104, by recommendation of instructor. **Grades for EH 103 and 104: A, B, C, NC.** *EH 104 prerequisite: successful completion of EH 101 or EH 103 and recommendation of instructor.* (EH 103 offered Fall only; EH 104 offered Spring only.)

**141. Oral Communication (3).** Conversational English with emphasis on the process by which ideas are interchanged orally from one person to another or to a group. Consists of regular classroom presentations, formal speaking, and practice on individual problems with usage and articulation.

**201, 202. American Literature (3) (3).** Two semesters. *Prerequisite: EH 102 or 104.* The American tradition as presented in literature. 201: Franklin, Irving, Poe, Douglass, Emerson, Thoreau, Hawthorne, Melville, Whitman. 202: James, Twain and more recent American authors, such as Ann Beattie and Alice Walker.

**203, 204. Survey of English Literature (3) (3).** Two semesters. *Prerequisite: EH 102 or 104.* Representative English writers in the major periods of their nation's cultural development. 203: *Beowulf* to Neoclassical writers. 204: Romantics to modern writers.

- 219, 220. **Honors Literature (3) (3)**. Two semesters. *Prerequisites: EH 102 or 104 and permission of instructor*. A study of works of literature against the background of philosophy, history, and the arts. (Offered Fall and Spring only.)
- 231, 232. **World Literature (3) (3)**. Two semesters. *Prerequisite: EH 102 or 104*. The literature of Greece and Rome, the Medieval Period, the Renaissance, the Enlightenment, the Romantic Age, Realism and Symbolism, and our own times.
300. **Independent Study (1)**. Special project in English studies. Permission of department head. (Offered Fall and Spring only.)
- 303, 304. **Survey of Black Literature (3) (3)**. Two semesters. *Prerequisite: EH 102 or 104*. 303: A study of African-American writers from Colonial times through the Harlem Renaissance. 304: From the 1940s to the present.
305. **Native American Literature (3)**. *Prerequisite: EH 102 or 104*. A study of selected literature by Native Americans, including traditional oral genres (myths, folktales) and written genres (autobiography, fiction, poetry).
307. **English Grammar (3)**. *Prerequisite: EH 102 or 104 or permission of the English Department Head*. This course will explore all aspects of English grammar, including sentence structure, usage, and mechanics. Open to all students with appropriate prerequisites.
309. **Film Noir, Classics, and Melodrama (3)**. *Prerequisite: EH 102 or 104*. An exploration of three of the most important forms of visual culture in contemporary America. The course will concentrate on the social and cultural work performed by the films, and the focus will shift from one semester to the next from film noir to classics to melodrama. May be taken only once.
311. **Romantic Poetry (3)**. *Prerequisite: EH 102 or 104*. English poetry of the late eighteenth and early nineteenth centuries, featuring works of Blake, Dorothy and William Wordsworth, Byron, Mary and Percy Shelley, and Keats.
313. **Twentieth-Century Poetry (3)**. *Prerequisite: EH 102 or 104*. British and American poets of the 1900s. Hardy and Robinson through Robert Lowell and Adrienne Rich.
321. **Advanced Grammar (3)**. *Prerequisite: EH 102 or 104*. A thorough study of the parts of speech and syntax.
322. **Technical Writing (3)**. *Prerequisite: EH 102 or 104*. Practical writing, especially correspondence and reports, for students in business, scientific, and technical fields.
344. **Advanced Composition (3)**. *Prerequisite: EH 102 or 104*. Improving the skills and the knowledge of composition acquired in EH 101 and 102, deepening the student's understanding of grammar, diction, and usage, and introducing him/her, through active production, to the larger forms, particularly of an expository or argumentative nature.
345. **Argumentation and Debate (3)**. *Prerequisite: EH 141*. Basic principles and practice of argumentation and debate, with instruction in parliamentary procedure. No credit allowed toward English major or minor.
346. **Advanced Oral Communication (3)**. *Prerequisite: EH 141; by advisement*. Study and practice of techniques of public speech-making, argumentation and debate.
347. **Theory of Speech (3)**. *Prerequisite: EH 141; by advisement*. Study and practice in developing oral communication skills and auditory discrimination ability. Offered during fall semester.
348. **Composition and Speech (3)**. *Prerequisites: EH 102 or 104 and 141. Only for students majoring in EED, ECK, CLS, or ECE*. Emphasis on writing and on oral presentation skills. **Grades for EH 348: A, B, C, NC**. No credit allowed toward English major or minor.
349. **The Literature of Young Adults (3)**. *Prerequisite: EH 102 or 104*. A survey of the literature of young adults with particular attention to recent examples. Emphasis will be on the literary qualities of the reading. Restricted to English majors, minors, and Secondary Education/ELA majors.
- 351, 352. **Creative Writing (3) (3)**. *Prerequisites: EH 102 or 104 and permission of the instructor*. The first semester will concentrate on writing fiction, the second on poetry. No credit allowed toward the English major or minor.
360. **Interpersonal Communication (3)**. *Prerequisite: EH 141*. A course designed to give students study and practice in effective oral communication in different one-to-one relationships and situations. No credit allowed toward English major or minor.
370. **The American Novel (3)**. *Prerequisite: EH 102 or 104*. From its beginning to the present: Cooper, Hawthorne, Melville, and Twain through such moderns as Faulkner, Hemingway, Wolfe, Ellison, Bellow, and Morrison.
371. **Contemporary Fiction (3)**. *Prerequisite: EH 102 or 104*. The reading and analysis of recent novels and/or short stories selected by the instructor.
372. **The Graphic Novel (3)**. *Prerequisite: EH 102 or 104*. An overview of the development of the graphic novel, beginning with Maus and ending with contemporary works.
373. **Twentieth-Century Drama (3)**. *Prerequisite: EH 102 or 104*. The social, moral, and psychological interests of modern and contemporary continental, English, and American dramatists.
375. **Southern Literature (3)**. *Prerequisite: EH 102 or 104*. Selected works of poetry and prose by such major Southern writers as George Washington Cable, Alice Walker, William Faulkner, and Flannery O'Connor.
377. **The Bible as Literature: Old Testament (3)**. *Prerequisite: EH 102 or 104*. This survey course will serve as an introduction to the literary ideas, forms, and techniques found in English translations of the Old Testament. This

course fulfills the upper level, non-American literature requirements for English and Secondary English Language Arts majors.

378. **The Bible as Literature: New Testament (3).** *Prerequisite: EH 102 or 104.* This survey course will serve as an introduction to the literary ideas, forms, and techniques found in English translations of the New Testament. This course fulfills the upper level, non-American literature requirements for English and Secondary English Language Arts majors.
399. **Study Tour (3).** *Prerequisite: EH 102 or 104.* Topics, excursions and requirements determined by department. May be duplicated for credit; however, only three (3) credits may be applied toward any major or minor. Infrequently scheduled and subject to minimum numbers. Advance deposit required.
401. **Chaucer (3).** *Prerequisite: EH 102 or 104.* The poet against the background of the Middle Ages.
402. **Special Studies in the English Renaissance (3).** *Prerequisite: EH 102 or 104.* Dedicated to selected writers, themes or genres.
- 403, 404. **Shakespeare (3) (3).** *Prerequisite: EH 102 or 104.* First semester: *Hamlet, Othello*, and selected histories and romantic comedies. Second semester: *King Lear, Macbeth*, and selected later comedies and tragedies.
405. **Shakespeare's England (3).** *Prerequisite: EH 102 or 104.* Program of study in Stratford-upon-Avon. Visits to places associated with Shakespeare and reading in social history of the period. (Offered infrequently.)
408. **Theory of Composition (3).** *Prerequisite: EH 102 or 104.* A study of current theory and practice in composition studies.
409. **The Art of the Film (3).** *Prerequisite: EH 102 or 104.* A consideration of the motion picture in its artistic, technical, and historical contexts. A number of films by major directors will be viewed.
410. **American Drama (3).** *Prerequisite: EH 102 or 104.* An examination of American drama both as theatre and literature, considering early plays in their historical contexts, with emphasis on major American dramatists beginning with Eugene O'Neill and progressing through Tennessee Williams, Arthur Miller, Edward Albee, and others.
411. **Eighteenth-Century Literature (3).** *Prerequisite: EH 102 or 104.* A survey of eighteenth-century English writers, focusing on major satirists, such as Dryden, Pope, Swift, and Fielding; also including Johnson and his circle, some of the major novelists and dramatists; and ending with a survey of the "Pre-Romantics" (the "poets of sensibility").
412. **Victorian Poetry (3).** *Prerequisite: EH 102 or 104.* Tennyson, Elizabeth Barrett and Robert Browning, Arnold, Swinburne, and other poets of the Victorian Era.
413. **English Drama (3).** *Prerequisite: EH 102 or 104.* Medieval background of Elizabethan drama and the reading of representative plays of the Tudor and Stuart periods.
415. **Advanced Expository Writing (3).** *Prerequisite: EH 344.* Refining skills and knowledge acquired in EH 101 or 103, 102 or 104, 344, and requiring expository/argumentative essays representative of excellent rhetoric. (Offered Spring only.)
419. **Milton (3).** Poetry and prose of John Milton, with special attention to *Paradise Lost*.
420. **Women's Literature (3).** *Prerequisite: EH 102 or 104.* Six centuries of representative literature by women. Emphasis on recent British and American, including ethnic-American, authors. Discussion of women writers in relation to the traditional canon.
423. **Alabama Literature (3).** *Prerequisite: EH 102 or 104.* An introduction to Alabama writers from the frontier period to the present; fiction and nonfiction; short story, novel, poetry, essay.
431. **Non-Western Literature (3).** *Prerequisite: EH 102 or 104.* An introduction to literature of the non-Western world from ancient times to the twenty-first century. This course will examine different genres of literature originating in the following regions or cultures: Asia, the Middle East, Africa, South and Central America, as well as other cultures whose heritage is not primarily based on the Western tradition.
441. **The History of the English Language (3).** *Prerequisite: EH 102 or 104.* Study of the origins and development of the English language from Old English through Modern English, focusing on the historical, cultural, and linguistic forces affecting language change.
442. **Black Writers in America (3).** *Prerequisite: EH 102 or 104.* A study of major twentieth-century writers, including Wright, Ellison, Hughes, Baldwin, Toni Morrison, Alice Walker, and others.
452. **Literary Criticism (3).** *Prerequisite: EH 102 or 104.* Prominent themes and theories, various critical approaches, and outstanding examples of literary criticism from Plato to feminism and African-American literary theory.
453. **The English Novel (3).** *Prerequisite: EH 102 or 104.* A history of the British novel, with readings of, and reports on, novelists of the eighteenth, nineteenth, and twentieth centuries.
467. **Twentieth-Century English Fiction (3).** *Prerequisite: EH 102 or 104.* British fiction of the twentieth century, including short stories and novels by modern and post-modern authors.
484. **Current New York Theatre (3).** *Prerequisite: EH 102 or 104.* A study of the New York theatre available at the time the course is offered. In addition to attending four current Broadway productions, students visit Lincoln Center for

the Performing Arts and major art museums, such as the Metropolitan Museum of Art and the Museum of Modern Art.

491. **Internship (3).** *Prerequisites: Completion of at least 12 hours of 300+ English classes and permission of the department head and sponsoring faculty member.* Provides direct experience and application of principles, concepts and theories acquired in coursework with an emphasis on writing in a professional organization while giving students the opportunity to gain work/career experience in service/learning or business/corporate settings. Pass/Fail grade only.

**PLAN OF STUDY  
BACHELOR OF ARTS  
MAJOR: ENGLISH**

*In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations.*

**FRESHMAN YEAR**

Fall	Spring
EH 101 or 103 .....3	EH 102 or 104 .....3
History sequence .....3	EH 141 .....3
Natural Science sequence .....4	History sequence .....3
Social/Behavioral Science .....3	Natural Science sequence .....4
MS 110 or 112 or 204 .....3	MS 108 or higher Math .....3
STU 101.....0	
16	16

**SOPHOMORE YEAR**

Fall	Spring
EH 201 .....3	EH 202 .....3
Fine Arts .....3	Social/Behavioral Science .....3
EH 203 .....3	EH 204 .....3
Foreign Language 101 .....3	Foreign Language 102 .....3
CS 201 .....3	Elective .....1
15	13

**JUNIOR YEAR**

Fall	Spring
English Literature <sup>1</sup> .....3	English Language <sup>2</sup> .....3
English Language <sup>2</sup> .....3	Foreign Language 202 .....3
Foreign Language 201 .....3	EH 403/404 .....3
Minor/Electives .....6	Minor/Electives 300+ .....6
15	15

**SENIOR YEAR**

Fall	Spring
English Literature <sup>1</sup> .....3	English Literature <sup>1</sup> .....3
English Elective 300+ .....3	English Elective 300+ .....3
Minor/Electives 300+ .....9	Minor/Electives 300+ .....9
15	15

**TOTAL HOURS: 120 HOURS; A MINIMUM OF 36 HOURS MUST BE 300+**

<sup>1</sup>English Literature Courses requirement: 9 hours at 300+ level, including one American and two non-American literature courses.

<sup>2</sup>English Language Courses requirement: 6 hours selected from the following: EH 307, 321, 344, 415, 441.

**DEPARTMENT OF HISTORY (HY) AND  
FOREIGN LANGUAGES (FL)**

**317 STONE CENTER**

**Department Head: Gordon E. Harvey**

**Professors: Cook, Gross, Harvey, Koerper, Lauderbaugh, Lemmons, Robinson, Wade**

**Associate Professors: Beezley, Koss, Levi, Pacheco, Prudlo**

**Assistant Professors: Martinez**

**Instructors: Burrows, Hudson, Stokesberry**

**History Major:**

History majors may select from a wide variety of courses designed to broaden their horizons and widen their world view. The History major prepares students for careers in the public and private sector, from teaching to archival work, or to careers in business and commerce.

The 120-hour degree requires 33 hours of History courses. Students will take one survey sequence (HY 101-102 or HY 201-202) as part of the General Studies Curriculum. The remaining sequence will be taken as part of the requirements for the major.

History Major (33 hours):

27 hours must be at the 300/400 level.

Survey Courses (sequence not taken in General Studies Curriculum):

HY 101-102 or HY 201-202	6 hrs
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Courses numbered 300 or above:

U.S. History*	6 hrs
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European History*	6 hrs
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Non-U.S./Non-European History	6 hrs
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History Electives	9 hrs
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<b>Total</b>	<b>33 hrs</b>
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\*Students must maintain a balance of early and modern classes in these sections.

**Other Requirements:**

Twelve (12) hours of foreign language courses are required. Majors should consult with advisors in selecting these courses. Students pursuing the Bachelor of Arts in history must have a minor as well as a major. A minor usually consists of eighteen to twenty-four semester hours in a single field of study (for example, English, Political Science, Geography).

**History Minor:**

Students wishing to minor in history must complete twenty-one semester hours in history. These courses must include HY 101-102 and HY 201-202 and nine hours numbered 300 or above.

**Gender Studies Minor:**

Students wishing to minor in gender studies must complete SY 368, Theories of Gender, and an additional 18 semester hours from the following list of gender studies courses: AN 345, AN 361, EH 420, HY 436, PSY 337, SY 310, SY 350, SY 367, SW 360, SW 365, and other relevant courses pending committee approval. Students must complete classes from at least three different programs. For Gender Studies minors, the respective departments have agreed to waive any normal prerequisites for the above-listed classes. For more information, please email the gender studies advisor at [genderstudies@jsu.edu](mailto:genderstudies@jsu.edu) or call the History Department at 256-782-5632.

Students may also complete up to six hours of the required 18 hours in non-designated courses that have been approved by the gender studies committee on a by-contract basis. Students wishing to take non-designated courses for gender studies credit must submit to the gender studies committee a contract for each non-designated course signed by both the instructor of record and the student, detailing how the student will create a gendered curriculum within the established framework of the course and course assignments. Students wishing to submit a proposal for a by-contract course should contact the gender studies advisor for the required form and pertinent information.

**Education Majors:**

Students who plan careers in education should contact the Teacher Service Center in the College of Education, Ramona Wood Hall, Room 207, for information on certification and admission to Education.

**HISTORY (HY)  
DESCRIPTION OF COURSES**

**100. Current History (1).** Students will do research on a current events topic which they select with the approval of the instructor. Consent of the department head is required.

- 101, 102. **Western Civilization (3) (3)**. Two semesters. Civilization from earliest times to the present. Some training in the technique of historical research.
- 103, 104. **Honors Western Civilization (3) (3)**. Two semesters. Advanced study in the history of western civilization from earliest time to the present. Includes training in the techniques of historical research, writing, and criticism.
- 201, 202. **American History (3) (3)**. Two semesters. Beginning with the European background, this course deals with the establishment of the thirteen English colonies, separation from the mother country, growth and expansion, participation in world affairs.
- 203, 204. **Honors American History (3) (3)**. Two semesters. Advanced study in American history, beginning with the European background and continuing up to the present. Includes training in the techniques of historical research, writing, and criticism.
301. **History of England to 1689 (3)**. *Prerequisites: HY 101, 102*. The origins of the English people and nation, its early legal and constitutional development, the struggle between king and parliament, and the beginning of overseas expansion down to the Glorious Revolution. Recommended especially for pre-law students.
302. **History of Great Britain, 1689 to the Present (3)**. *Prerequisites: HY 101, 102*. A continuation of HY 301. The consolidation to the constitutional evolution; the agricultural, social, industrial, and political revolutions of the eighteenth and nineteenth centuries; the merging of Great Britain into the Commonwealth of Nations.
304. **American Military History (3)**. *Prerequisites: HY 201, 202*. The evolution of warfare and the military in America's past. (Offered every year.)
331. **The Far East in Modern Times (3)**. *Prerequisites: HY 101, 102*. A survey of Far Eastern history with special emphasis upon China, Japan, and the impact of western influence in Modern Times.
332. **Russian History through the Revolutions of 1917 (3)**. *Prerequisites: HY 101, 102*. The political, social, and intellectual developments of Russia from the early migrations and consolidation of Muscovy through the fall of the House of Romanov.
333. **Russian History from 1855 to the Present (3)**. *Prerequisites: HY 101, 102*. Survey of the history of Russia focusing on the rise of radical activity that led to the Revolution of 1917, the creation, evolution and collapse of the Soviet Union and Russia after communism.
395. **Europe in the Middle Ages 476-1300 (3)**. *Prerequisites: HY 101, 102*. Major political, intellectual, and cultural trends, with emphasis on ecclesiastical developments and the fathers of the church.
399. **Study Tour (3)**. Topics, excursions, and requirements determined by department. May be duplicated for credit; however, only three (3) credits may be applied toward any major or minor. Infrequently scheduled and subject to minimum and maximum numbers. Advance deposit required.
400. **Europe in the High Middle Ages: Renaissance and Reformation, 1300-1648 (3)**. *Prerequisites: HY 101, 102*. European society as seen through its philosophy, religion, literature, and politics.
404. **The Age of the Cold War: Europe, 1945-Present (3)**. *Prerequisites: HY 101, 102*. The Cold War and its impact on the internal reorganization of the European nations. (Offered every year.)
405. **Environmental History of the U.S. (3)**. *No prerequisite*. A historical investigation of human interaction with the environment in the United States from the pre-colonial era to the present.
406. **Internship in Museum Studies (3)**. *Prerequisite: permission of instructor*. Working with local historical museums under the supervision of faculty, students will be introduced to the problems and possibilities of museum curatorship.
408. **Ancient History (3)**. *Prerequisites: HY 101, 102*. A survey of civilization in the Near East and Europe from the invention of writing to the fall of the Roman Empire.
409. **Modern France (3)**. *Prerequisites: HY 101, 102*. A survey of the development of the French nation-state from Louis XIV to the present.
415. **The American Experience in War (1775-1898) (3)**. *Prerequisites: HY 201, 202 or permission of instructor*. A military history of the American Revolution, War of 1812, Mexican War, Civil War, and Spanish American War. The course examines strategy, tactics, leadership, logistics, and civil military relations in America's first five conflicts.
433. **American Social and Cultural History to 1865 (3)**. *Prerequisites: HY 201, 202*. American society through its literature, religion, philosophy, and arts. Emphasis upon immigration strains, European cultural transfer, and environmental adaptations which have formed the American character. Wide opportunities for reading offered in religion, philosophy, literature, and the arts.
434. **American Social and Cultural History Since 1865 (3)**. *Prerequisite: HY 202 or permission of instructor*. This course will evaluate shifting immigration origins. Concentrated study will be given to the changing thought patterns which have resulted from Darwinism, the rise of Big Business, theories of the public interest, Pragmatism, and the emergence of the United States as a world power.
436. **History of American Women (3)**. *Prerequisites: HY 201, 202*. A survey of the history of women from the colonial period to the present with emphasis upon social, economic, political, and educational developments.
437. **Black America (3)**. *Prerequisites: HY 201, 202*. Blacks in the U.S. from colonial times to the present; events of the twentieth-century and the integral social relations between blacks and whites will be emphasized.

441. **The South Before 1860 (3).** *Prerequisites: HY 201, 202.* The colonization and the economic, political, social, and cultural development of the Old South and its part in building the nation.
442. **The South Since 1860 (3).** *Prerequisites: HY 441 or permission of instructor.* The issues which led to secession; the War Between the States; the economic, political, and social results; recent tendencies and developments.
443. **Introduction to Southern Culture (3).** *Prerequisites: HY 201, 202.* The study of the historic roots of regional culture that will integrate topics, such as the "Cult of the Lost Cause," religion, folk life, music, literature, and the transition from a rural/agricultural society to an urban/commercial/industrial one.
444. **History of Alabama (3).** *Prerequisites: HY 201, 202.* Alabama from the era of settlement to the present.
445. **North American Indians (3).** *Prerequisite: HY 201.* A survey of Native American history in what became the United States. Particular attention will be paid to Native-US government relations, the impact of the reservation and assimilation programs, and modern rights issues.
448. **The Westward Movement in American History (3).** *Prerequisites: HY 201, 202.* Significance of the frontier in American History; colonization of successive geographic areas; the West in relation to tariff, public lands, currency and banking; and crisis resulting from expansion.
451. **History of Early America to 1783 (3).** *Prerequisites: HY 201, 202.* European background to exploration; exploration and settlement; the Inter-Colonial Wars; the political, social, economic, and cultural developments within the colonies.
452. **The Age of Jefferson and Jackson, 1783 to 1850 (3).** *Prerequisites: HY 201, 202.* The development of the American Republic from the end of the American Revolution until the Compromise of 1850, with special emphasis on the influence that Jefferson and Jackson had on the evolution of democratic attitudes and institutions.
453. **Sectional Conflict, Civil War, and Reconstruction, 1850-1877 (3).** *Prerequisites: HY 201, 202.* The rise of opposition to slavery; the Decade of Crises; Civil War; political, social, economic, diplomatic, and military aspects of the conduct of the war. An examination of the various interpretations, regional and national, of the Reconstruction Period.
454. **The Beginning of Modern America, 1877-1914 (3).** *Prerequisites: HY 201, 202.* Description and evaluation of the shift of the United States from an agrarian to an industrial nation; the heritage of Civil War and Reconstruction; the rise of the Great Moguls; mass production and technological change; the rise of labor union movements and organized farm protests; the Spanish-American War; and American involvement in World War I.
455. **The 1920's and the Great Depression (3).** *Prerequisites: HY 201, 202.* A detailed study of American political, diplomatic, and cultural history from Presidents Woodrow Wilson through Franklin D. Roosevelt.
456. **Contemporary America, 1945-Present (3).** *Prerequisites: HY 201, 202.* A detailed study of American political, diplomatic, and cultural history since the end of the World War II. Part of this course will be devoted to the study of current events. (Offered every year.)
465. **The British Empire and Commonwealth (3).** *Prerequisites: HY 101, 102.* Growth and development of the British Empire, with emphasis on the factors leading to the Commonwealth of Nations.
468. **Constitutional History of England (3).** *Prerequisites: HY 101, 102.* Growth of common law, the court system, and the cabinet form of government from the earliest times to the present.
469. **Age of Churchill (3).** An examination of late Victorian-twentieth century British and World events through the career of Winston S. Churchill.
470. **American Diplomatic History to 1933 (3).** *Prerequisites: HY 201, 202.* History of United States foreign relations beginning with the American Revolutionary Period and continuing through the decade of the 1920's. A study of the historical changes in American foreign policy objectives which led to the increased size and importance of the United States.
471. **American Diplomatic History Since 1933 (3).** *Prerequisites: HY 201, 202.* A detailed study of United States' foreign relations beginning with Franklin D. Roosevelt and continuing to the present.
473. **Modern Middle East (3).** *Prerequisites: HY 101, 102.* This course centers around Israel's struggle for national independence and the tension this has produced in the Middle East.
480. **Colonial Latin America (3).** *Prerequisite: HY 101 or 201 or permission of instructor.* The interaction of Native American, European, and African people in the Spanish and Portuguese empires of the Americas, concluding with the wars for independence.
481. **Modern Latin America (3).** *Prerequisite: HY 102 or 202 or permission of instructor.* An examination of the political, economic, social, and cultural developments of the diverse Latin American nations since 1821, against a backdrop of tradition, reform, and revolution.
483. **United States-Latin American Relations (3).** *Prerequisites: HY 201, 202 or permission of instructor.* A survey of the diplomatic, economic, and cultural relations between the United States and the Latin American Republics from 1810 to the present.
485. **History of Mexico (3).** *Prerequisites: HY 201, 202 or permission of instructor.* A study of Mexico's past, including pre-Columbian civilizations, the Spanish Conquest and Colonial period, the independence movement and the early

republic, the struggle for nationhood, the modernization of Mexico with a special emphasis on the Mexican Revolution and the forces that shaped present day Mexico.

486. **The Andean Nations (3).** *Prerequisites: HY 201, 202 or permission of instructor.* A history of Colombia, Ecuador, Peru and Bolivia from pre-Columbian times until the present with an emphasis on the diversity of the peoples of these nations.
487. **History of Brazil (3).** *Prerequisites: HY 201, 202 or permission of instructor.* A survey of Brazil's history from 1500 until the present with an emphasis on The Empire of Brazil, 1822-1889, and modern Brazil, 1889 to present.

**PLAN OF STUDY  
BACHELOR OF ARTS  
MAJOR: HISTORY**

*In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations.*

**FRESHMAN YEAR**

Fall	Spring
EH 101 .....3	EH 102 .....3
HY 101 .....3	HY 102 .....3
PSC 100 .....3	Social/Behavioral Science .....3
Natural Science sequence .....4	Natural Science sequence .....4
MS 108 or higher math .....3	MS 204 .....3
STU 101.....0	
16	16

**SOPHOMORE YEAR**

Fall	Spring
Literature .....3	Literature .....3
HY 201 .....3	HY 202 .....3
Fine Arts elective .....3	CS 201 .....3
EH 141 .....3	Foreign language .....3
Foreign language .....3	Elective .....3
15	15

**JUNIOR YEAR**

Fall	Spring
HY 300+(by advisement) .....6	HY 300+ (by advisement) .....6
Foreign language .....3	Foreign language .....3
Minor/electives 300.....6	Minor/electives 300+ .....6
15	15

**SENIOR YEAR**

Fall	Spring
HY 300+ (by advisement) ..... 9	HY 300+(by advisement) .....6
Minor/electives 300+ .....5	Minor/electives 300+ .....8
14	14

**TOTAL: 120 hours, at least 36 hours of which must be in courses numbered 300 or above.**

**DESCRIPTION OF FOREIGN LANGUAGES (FL)**

The Department offers a Bachelor of Arts degree in Foreign Languages, with a concentration in either French or Spanish, as well as minors in the two languages, for students not seeking teaching certification (with a Bachelor of Science in Education degree). The Department also offers courses of study leading to teaching certification in the chosen language (see below).

In the 120-hour Bachelor of Arts degree in Foreign Languages, requirements for the major include the following: A minimum of 36 hours in the same language, which includes 101, 102, 201, 202, 303, 304, 310, 320, 321, 322, and at least

two 300/400 level courses. In addition, each student must complete a 12-hour core in the second language, consisting of 101, 102, 321, and 322. Students with native or near-native language ability must contact the Foreign Languages Head to determine their proper placement in language courses. Students with previous foreign language experience may be exempted from any or all of the lower-level courses based on their placement test performance; however, the total credit hour requirement (36 hours in the language of concentration) must be fulfilled with other courses in the chosen language. Additionally, courses 101, 102, 201, and 202 **must be taken in sequence** (unless the student is exempted by placement test or has instructor's permission).

Requirements for the minor: A minimum of 24 hours in the same language, which must include 101, 102, 201, 202, plus 4 additional 300/400 level courses. Again, students with prior language experience may test out of the lower-level courses, and unless exempted, must take 101, 102, 201, and 202 **in sequence**. The minor is not available to students seeking teaching certification, but students concentrating in one language may choose to minor in the other. A student may also choose a non-language minor.

For information concerning teaching certification, please consult the College of Education entries in this catalog or seek help from the College of Education Teacher Service Center, in room 207 Ramona Wood.

## FRENCH (FH) DESCRIPTION OF COURSES

- 101. Beginner's French I (3).** Beginning French grammar, pronunciation, conversation, culture, and supplementary work in the laboratory.
- 102. Beginner's French II (3).** *Prerequisite: FH 101 or instructor's approval.* Continuation of Beginner's French I.
- 201. Intermediate French I (3).** *Prerequisite: FH 102, or instructor's approval.* A review of French grammar and vocabulary, conversation, and discussion based on short literary selections. Writing short compositions, dialogs, etc. Laboratory required.
- 202. Intermediate French II (3).** *Prerequisite: FH 201 or instructor's approval.* Continuation of Intermediate French I. Successful completion of 202 is prerequisite for **all courses** numbered 300 or higher, *except* 321 and 322.
- 303, 304. Survey of Literature I and II (3) (3).** *Prerequisite: FH 202.* Two semesters. French literature from the Middle Ages to the Revolution (303) and from Romanticism to the present (304).
- 310. Advanced Grammar and Composition (3).** *Prerequisite: FH 202.* A thorough study of syntax, structure, vocabulary, and structures that the advanced student should know. Writing expository, descriptive, argumentative, and critical compositions.
- 313. Basic Business Communications (3).** *Prerequisite: FH 202.* Practice in written and spoken communications in all types of business situations for those specializing in areas where the language is French.
- 320. French Conversation (3).** *Prerequisite: FH 202.* Intensive practice in conversation.
- 321. French Civilization I (3).** *Offered in English, no prerequisites.* An extensive study of French culture in a historical context, covering prehistory through the French Revolution. Cultural aspects examined include art and architecture, music, literature, politics and government, and social trends.
- 322. Francophone Culture (3).** *Offered in English, no prerequisites.* Introduction to and examination of the culture of various French-speaking countries and regions outside Europe.
- 325. French Civilization II (3).** *Offered in English, no prerequisites.* An extensive study of French culture in a historical context, covering the Napoleonic Age through the present. Cultural aspects examined include art and architecture, music, literature, politics and government, and social trends.
- 416. Seventeenth-Century French Literature (3).** *Prerequisite: FH 202.* Reading and analysis of representative plays by Corneille, Racine, and Moliere.
- 420. Eighteenth-Century French Literature (3).** *Prerequisite: FH 202.* Literary, social and political trends of the Enlightenment as represented in the works of Montesquieu, Diderot, Voltaire, Rousseau and others.
- 430, 431. Nineteenth-Century French Literature (3) (3).** *Prerequisite: FH 202.* Two semesters. Nineteenth-Century French Novel (430): reading and analysis of representative works by Stendhal, Hugo, Balzac, Flaubert, Maupassant, and Zola. Nineteenth-Century Poetry and Drama (431): reading and analysis of poetry and drama representing the major movements of the era, from Romanticism through Symbolism.
- 440, 441. Twentieth-Century French Literature (3) (3).** *Prerequisite: FH 202.* Two semesters. Twentieth-Century Novel (440): reading and analysis of representative works by Gide, Proust, Mauriac, Sartre, Camus and Saint-Exupery. Twentieth-Century Poetry and Drama (441): reading and analysis of poetry and drama from the major movements, including Surrealism, Theater of the Absurd, Existentialism, etc.

## SPANISH (SH) DESCRIPTION OF COURSES

- 101. Beginner's Spanish I (3).** Beginning Spanish grammar, with emphasis on reading, writing, speaking, and understanding the language. Use of the language laboratory required.
- 102. Beginner's Spanish II (3).** *Prerequisite: SH 101 or instructor's approval.* Continuation of Beginner's Spanish I.

201. **Intermediate Spanish I (3).** *Prerequisite: SH 102 or instructor's approval.* A review of Spanish grammar, conversation, and discussion based on short literary selections. Writing short compositions, dialogs, etc. Laboratory required.
202. **Intermediate Spanish II (3).** *Prerequisite: SH 201 or instructor's approval.* Continuation of Intermediate Spanish I. Successful completion of 202 is prerequisite for **all courses** numbered 300 or higher, *except* 321, 322, and 406.
- 303, 304. **Survey of Literature I and II (3) (3).** *Prerequisite: SH 202.* Representative Spanish writers in the major periods of their nation's cultural development. From the Middle Ages to the Golden Age (303), and from the 18th Century to the present (304).
310. **Advanced Grammar and Composition (3).** *Prerequisite: SH 202.* A thorough study of syntax, structure, vocabulary, and structures that the advanced student should know. Writing expository, descriptive, argumentative, and critical compositions.
313. **Basic Business Communications (3).** Practice in written and spoken communications in all types of business situations for those specializing in areas where the language is Spanish.
320. **Spanish Conversation (3).** *Prerequisite: SH 202.* Intensive practice in spoken Spanish using a variety of cultural activities (films, magazine articles, TV programs, etc.).
321. **Spanish Civilization (3).** *No prerequisites; offered in English.* Evolution of the culture, history, and geography of Spain.
322. **Latin American Civilization (3).** *No prerequisites; offered in English.* Evolution of the culture, history, and geography of Latin America.
405. **Golden Age Drama (3).** *Prerequisite: SH 202.* Reading and analysis of representative plays by Lope de Vega, Tirso de Molina, Alarcón, and Calderón de la Barca.
406. **Don Quixote (3).** *No prerequisite; offered in English.* Reading and analysis of the works of Cervantes, with special attention to *Don Quixote*. Research paper is required.
408. **The Generation of 1898 (3).** *Prerequisite: SH 202.* Reading of and reports on the major works of Azorín, Unamuno, Valle-Inclán, Antonio Machado, and Pío Baroja.
409. **Contemporary Spanish Literature (3).** *Prerequisite: SH 202.* Representative works of major writers from the Spanish Civil War to the present.
410. **Latin American Literature (3).** *Prerequisite: SH 202.* Representative Latin American writers in the major periods of their nation's cultural development from the Colonial period to the present.
411. **Nineteenth-Century Spanish Poetry (3).** *Prerequisite: SH 202.* Representative poets from the Neo-Classical period, through Romanticism, Realism, Modernism, to the present.
412. **Nineteenth-Century Spanish Drama (3).** *Prerequisite: SH 202.* Reading and analysis of outstanding plays with emphasis on those of Duque de Rivas, Zorrilla, Echegaray, García Gutiérrez, Hartzenbusch, and Tamayo y Baus.
413. **Nineteenth-Century Spanish Novel (3).** *Prerequisite: SH 202.* Major developments and trends in the novel of the 19th century, as reflected in the works of Galdós, Pardo Bazán, Palacio Valdés, Blasco Ibañez, Valera, and Pereda.

## PLAN OF STUDY

### CONCENTRATION: FRENCH OR SPANISH

*In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations.*

#### FRESHMAN YEAR

Fall	Spring
FL 101 (1st lang.) .....3	FL 102 (1st lang.) .....3
HY sequence .....3	HY sequence .....3
Natural Science sequence .....4	Natural Science sequence .....4
EH 101 .....3	EH 102 .....3
Social & Behavioral Science** .....3	EH 141 .....3
STU 101 .....0	
_____	_____
16	16

## SOPHOMORE YEAR

Fall	Spring
FL 201 (1st lang.) .....3	FL 202 (1st lang.) .....3
MS 108 .....3	MS 110 or 204 .....3
Social & Behavioral Science** .....3	EH Literature.....3
EH Literature .....3	Fine Arts Elective* .....3
FL 101 (2nd lang.).....3	FL 102 (2nd lang.) .....3
15	15

## JUNIOR YEAR

Fall	Spring
FL 303, 304, 310 or 320 (1st lang.).....3	FL 303, 304, 310 or 320 (1st lang.) .....3
CS 201 .....3	Minor/ Electives .....6
FL 321 or 322 (1st lang.) .....3	FL 321 or 322 (1st lang.) .....3
Minor / Electives .....6	FL Elective 300/400 level.....3
15	15

## SENIOR YEAR

Fall	Spring
FL 303, 304, 310 or 320 (1st lang.).....3	FL 303, 304, 310, or 320 (1st lang.) .....3
FL 321 or 322 (2nd lang.) .....3	FL 321 or 322 (2nd lang.) .....3
FL Elective 300/400 Level..... 3	Minor/ Electives ..... 6
Minor/ Electives .....6	Elective ..... 1
15	13

**TOTAL HOURS: 120 hours, at least 36 of which must be at the 300+ level.**

\*Select from ART 202, MU 233, DR 242

\*\*Select from AN 224, GY 120, GY 220, PSY 201

### DEPARTMENT OF LEARNING SKILLS

#### HOUSTON COLE LIBRARY BASEMENT

**Department Head: Courtney Peppers-Owen  
Instructors: Beckett, Gladen, Kirk, White**

Learning Skills courses assist students in developing their basic academic skills and their reasoning and studying skills. General, elective academic credit is awarded for successful completion of Learning Skills courses, except LS 095 and 096, which carry institutional credit only.

### LEARNING SKILLS (LS) DESCRIPTION OF COURSES

- 095. Reinforcing Communication Skills (3).** Individualized development of reading, writing, speaking, and thinking skills. Institutional credit only. **GRADES: A, B, C, NC.**
- 096. Writing Competency Skills (1).** A review of writing skills, especially in the areas of punctuation, syntax, and coherence in writing. Designed for students, especially international, who have experienced difficulty in passing the English Competency Exam. **GRADES: A, B, C, NC.**
- 103. Reinforcing Reading Skills (3).** Individualized development of reading and thinking skills.
- 104. Academic Success Skills (3).** Individualized freshman seminar providing supportive guidance in study skills, problem-solving, decision-making, and college adjustment. Open to freshmen only. Required for all conditionally admitted students. **GRADES: A, B, C, NC.**
- 106. Algebra Emporium (0).** Effective fall semester 2015, this zero-credit emporium is a mandatory laboratory for students who have received an "NC" in MS 100. The learning environment in the laboratory will be individualized and mastery-based to enable students to prepare for their first general education mathematics course. Prior to the beginning of the next semester or term after an "NC" in MS 100, students must register for LS 106 and remain in

the laboratory until they have mastered the objectives of MS 100, including, if necessary, subsequent semesters or terms until the objectives have been met.

130. **Critical Thinking Skills (3).** Individualized development of higher order thinking skills needed for academic study and career success.
- 301, 302, 303. **Academic Performance Management (1-3).** Realizing that fellow students can be effective teachers, the University offers academic credit to qualified students who serve as learning assistants in selected areas. Permission of instructor is required. Each section may be duplicated up to three times for a total of 3, 6, and 9 hours for each course respectively.

DEPARTMENT OF MATHEMATICAL, COMPUTING,  
AND INFORMATION SCIENCES (MS) (CS)

Computer Science and Computer Information Systems Programs  
Accredited by the Computing Accreditation Commission of ABET, Inc.

119 AYERS HALL

Department Head: TBA

Professors: Case, Dempsey, Dodd, Francia, J. Kim, Y. Kim,  
Krishnaprasad, Leathrum, E. Smith, J. S. White

Associate Professors: Franklin, Garrett, K. Kim, Plotnick, Thornton, Trifas

Instructors: Alam, Chukwuemeka, Cochran, DaParma, Fathi, C. Jensen, J. Jensen,  
McDivitt, D. Smith, Snellen, A. White

Three majors are available: 1) Mathematics with one of three concentrations—Theoretical, Applied, and General; 2) Computer Science with one of three concentrations—Information Assurance, Game Development, and General; and 3) Computer Information Systems with one of three concentrations—Information Assurance, Web Development, and General.

The **Mathematics (MS) major** consists of prescriptive common courses, prescriptive concentration courses, and elective courses. Concentrations available are: 1) **Theoretical**—emphasizes course work to prepare the student for graduate work in mathematics and a career in mathematics (39 hours); 2) **Applied**—emphasizes course work to prepare the student for graduate work in applied mathematics and a career supported by significant applied mathematics (39 hours); and 3) **General**—emphasizes course work designed to give the student sound fundamental skills and to integrate these fundamental skills into a broad knowledge of the content and methods of mathematics as a liberal art (39 hours).

Each concentration requires completion of the following **common courses** with a “C” or better: MS 125, 126, 227, 300, 344, 352, and 415.

Each concentration requires completion of the following **concentration courses** with a “C” or better: *Theoretical*: MS 416, 441, and any two of 442, 451, 480, or 484; *Applied*: MS 304, 309, 390, 416, and any one of 403, 404, 451, 480, 484, or 499; *General*: MS 302, 305 or 309, 323, 441, and 475.

Each concentration requires **elective courses** selected from the departmental list of approved mathematics electives as follows: *Theoretical*: at least one additional MS course numbered above 300, excluding 322; *General and Applied*: none required.

In addition to the common, concentration, and elective courses, each concentration requires the following **support courses**: CS 230 and 231, and the physics sequence PHS 211 and 212 with labs.

The **Mathematics minor** requires a minimum of 21 hours and consists of the calculus sequence and three mathematics courses numbered 300 or above.

The **Computer Science major** emphasizes the development of large software systems. It consists of prescriptive courses and elective courses. The **prescriptive courses** are CS 230, 231, 232, 234, 304, 310, 331, 333, 350, 450, 462, 488, and 491, and must be completed with a “C” or better. **Three concentrations** are available based on elective courses pursued that must be completed with a “C” or better: (1) **Information Assurance**: CS 307, 308, 425 or 461, and 470; (2) **Game Development**: CS 339, 439, and two of the following courses: 430, 432, 444; and (3) **General**: Four **elective courses** must be completed from the departmental list of approved computer science electives: two numbered 300 or above and two numbered 400 or above. Courses in the major may not be taken until all prerequisites are completed with a grade of “C” or better.

In addition to the major courses, **support courses** required are MS 125, 126, 227, 302, 352, one of the following natural science sequences: the physics sequence PHS 211 and 212 with the associated labs, the chemistry sequence CY 105 and 106 with the associated labs, or the biology sequence BY 101 and 102 with the associated labs and one additional science course with a lab component emphasizing the scientific method, either in physics, chemistry, or biology. Note that a minimum of twelve hours of natural science needs to be taken.

The **Computer Information Systems major** emphasizes the development and maintenance of business software systems. It consists of prescriptive courses and elective courses. The **prescriptive courses** are CS 230, 231, 232, 304, 309, 310, 311, 333, 350, 370, 450, 462, 488, and 491, and must be completed with a “C” or better. **Three concentrations** are available based on elective courses pursued that must be completed with a “C” or better: (1) **Information Assurance**: CS 307, 308, 412 or 425 or 461, and 470; (2) **Web Development**: CS 315, 325, 425, and 415; and (3) **General**: Four **elective courses** must be completed from the departmental list of approved computer information systems electives: two

numbered 300 or above and two numbered 400 or above. Courses in the major may not be taken until all prerequisites are completed with a grade of "C" or better.

In addition to the major courses, **support courses** required are ACC 200, EC 221, FIN 301, MGT 301, MKT 301, MS 120 or MS 125, and MS 302.

The **Computer Science minor** requires 21 hours consisting of CS 230, 231, 232, 310, 333, 350, and 488. The **Computer Information Systems minor** requires 21 hours consisting of CS 230, 231, 232, 310, 311, 370, and 488. The **Applied Information Processing minor** requires 21 hours consisting of CS 230 and six CS courses selected from CS 231, 300, 302, 305, 307, 309, 310, 315, 322, and 339. Courses in each of these minors must be completed with a "C" or better. Also, courses in these minors may not be taken until all prerequisites are completed with a grade of "C" or better.

To satisfy the general studies curriculum, general courses from the areas listed in the "Plan of Study" for each major and concentration must be completed. The "Plan of Study" is located after the "Description of Courses" for each major. All students, especially transfer students, must note the specific courses required in their "Plan of Study." For specific requirements in each major/minor see the department head or an advisor. Students may also use the Internet to obtain an outline of the specific courses required for their chosen major and concentration. The URL is <http://www.jsu.edu/mcis>.

## MATHEMATICS (MS) DESCRIPTION OF COURSES

NOTE: Information regarding placement in an initial mathematics course may be found on the MCIS department web page. The placement criteria found on the web page are subject to change. Students will be placed based on the criteria current at the time of enrollment in their initial mathematics course.

100. **Intermediate Algebra (3).** *Prerequisite: Satisfactory score on the departmental placement test.* Operations and properties of real numbers, rates and proportions, units and measurement, elementary plane geometry, linear equations and inequalities, exponents and polynomials, factoring algebraic expressions, graphing in the cartesian plane, systems of equations and inequalities, rational and radical expressions, and functions. (May not be repeated. Institutional credit only.) Grades: P, NC.
108. **Exploring Mathematics (3).** *Prerequisite: Satisfactory score on the departmental placement test or satisfactory performance in MS 100 or LS 106.* This course is intended for liberal arts and other non-mathematics and non-science majors who plan to concentrate in fields which require no specialized mathematical knowledge. The purpose of the course is to cultivate an appreciation of the beauty and fascination of mathematics. Ideas discussed will be chosen for their intrinsic interest and accessibility to a wide audience. Applications will be chosen to demonstrate the role that mathematical thinking plays in the human quest for understanding.
110. **Finite Mathematics (3).** *Prerequisite: Satisfactory score on the departmental placement test or satisfactory performance in MS 100 or LS 106.* Systems of equations and matrices, matrix applications, sets and counting, probability, probability distributions, and statistics.
111. **Honors Finite Mathematics (3).** *Prerequisite: Satisfactory score on the departmental placement test or satisfactory performance in MS 100 or LS 106 or by advisement.* Advanced study of systems of equations and matrices, matrix applications, sets and counting, probability, probability distributions, and statistics with an emphasis on writing, projects, and technology.
112. **Precalculus Algebra (3).** *Prerequisite: Satisfactory score on the departmental placement test or satisfactory performance in MS 100 or LS 106.* First and second degree equations and inequalities, linear and quadratic functions and graphs, polynomial and rational functions, exponential and logarithmic functions, conic sections, and systems of equations.
113. **Precalculus Trigonometry (3).** *Prerequisite: MS 112 with a "C" or better or satisfaction of MCIS Department placement criteria (see the MCIS Department web site).* Trigonometric functions and inverses, applications, graphs, identities and equations, laws of sines and cosines, vectors and complex numbers.
115. **Precalculus Algebra and Trigonometry (4).** *Prerequisite: MS 112 with a "C" or better or MS 113 with a "C" or better or satisfaction of MCIS Department placement criteria (see the MCIS Department web site).* The course is an algebra-trigonometry composite providing the student with a mathematical foundation required for calculus or other courses requiring a similar mathematical background.
117. **Advanced Technical Mathematics I (2).** *Prerequisite: MS 112 with a "C" or better or satisfactory score on ACT/ SAT or departmental placement test.* Selected topics from: unit conversions, geometry, trigonometry, differential and integral calculus. Applications emphasize solving problems in technology. Open only to students in the Technology program, except by instructor permission. Student cannot receive credit for both this course and TEC 302. (Department credit not given for mathematics majors or minors.)
119. **Advanced Technical Mathematics II (2)** *Prerequisite: MS 117 with a "C" or better.* Selected topics from: unit conversions, geometry, trigonometry, differential and integral calculus. Applications emphasize solving problems in technology. Open only to students in the Technology program, except by instructor permission. Student cannot receive credit for both this course and TEC 302. (Department credit not given for mathematics majors or minors.)
120. **Calculus and Its Applications (3).** *Prerequisite: MS 112 with a "C" or better or satisfaction of MCIS Department placement criteria (see the MCIS Department web site).* Topics in differential and integral calculus with business

applications, functions of several variables, partial derivatives with business applications, Lagrange Multipliers, and multiple integration.

125. **Calculus I (4).** *Prerequisite: MS 113 with a "C" or better or MS 115 with a "C" or better or satisfaction of MCIS Department placement criteria (see the MCIS Department web site).* Introduction to analytic geometry, functions and limits, differentiation with applications, indeterminate forms, antiderivatives, definite integrals, numerical integration, calculus of transcendental functions.
126. **Calculus II (4).** *Prerequisite: MS 125 with a "C" or better.* Applications of integration, techniques of integration, improper integrals, infinite series, vectors in the plane and in 3-space.
133. **Mathematical Concepts I (3).** *Prerequisite: MS 112.* Preparation for implementation of standards set by the National Council of Teachers of Mathematics. Problem solving, set theory, number theory, real number operations, historical development and structure of number systems. (Not open to students with credit in MS 108.) (Enrollment by advisement only.) Two hours lecture and two hours lab.
134. **Mathematical Concepts II (3).** *Prerequisites: MS 112 and 133.* A thorough study of geometry, measurement, and statistics as recommended by the NCTM. Problem solving and application are emphasized. (Enrollment by advisement only.) Two hours lecture and two hours lab.
135. **Mathematical Concepts III (3).** *Prerequisites: MS 112 and 133.* Further study in NCTM recommended math content to include logic, probability, principles of counting, algebraic reasoning and representation. (Enrollment by advisement only.) Two hours lecture and two hours lab.
204. **Basic Statistics (3).** *Prerequisite: Satisfactory score on the departmental placement test or satisfactory performance in MS 100 or LS 106.* Numerical descriptive methods, axioms of probability, random variables, statistical inference, point and interval estimation of mean, and hypothesis testing.
227. **Calculus III (4).** *Prerequisite: MS 126 with a "C" or better.* Polar coordinates, parametric equations, vector-valued functions, multivariate functions, multiple integrals, vector analysis.
250. **Introduction to Linear Algebra (3).** *Prerequisite: MS 113 or 115.* Basic theory of linear equations, matrices, real vector spaces, bases, dimension, linear transformations, determinants, eigenvalues, eigenvectors, inner product spaces, and the diagonalization of symmetric matrices.
300. **Introduction to Advanced Mathematics (3).** *Prerequisite: MS 126 with a "C" or better.* Mathematical writing, including methods of proof, and fundamentals of sets and functions. May also include selected topics in algebra, analysis, number theory, or discrete mathematics. Students will be required to demonstrate mastery of selected precalculus material by independently completing a mastery-based tutorial and testing program with a satisfactory score.
302. **Applied Probability and Statistics (3).** *Prerequisite: MS 120 with a "C" or better or MS 125 with a "C" or better.* Provides a summary of introductory probability and statistics centered around data analysis examples and computer simulations. Includes discrete and continuous probability distributions, estimation, and hypothesis testing.
304. **Mathematical Statistics I (3).** *Prerequisite: MS 126 with a "C" or better.* Probability rules, discrete and continuous random variables and their probability distributions, expected value, variance, moment generating functions, multivariate probability distributions, and covariance.
305. **Number Theory (3).** *Prerequisite: MS 126 with a "C" or better.* An introduction to the principal topics of elementary number theory, including divisibility, linear Diophantine equations, distribution of primes, congruences, Fermat's Theorem, and number theoretic functions.
309. **Combinatorics (3).** *Prerequisite: MS 126 with a "C" or better.* An introduction to counting techniques, such as permutations and combinations, the inclusion-exclusion principle, recurrence relations, and generating functions. May also include topics from graph theory, combinatorial design, and discrete probability.
322. **Selected Survey of Secondary School Mathematics (3).** *Prerequisites: MS 112 and 113 or equivalents.* For students pursuing certification in mathematics. Overview of secondary school mathematics for prospective and in-service teachers of mathematics. (Department credit not given for mathematics majors or minors.)
323. **College Geometry (3).** *Prerequisite: MS 300.* Euclidean geometry, including synthetic and analytic proofs, geometric constructions, properties of the triangle and circle; an introduction to non-Euclidean geometry.
331. **Peer Educator (1).** Academic credit given to advanced undergraduate students who provide tutorial assistance in the mathematics department. Students will work under the guidance of an experienced mathematics instructor. Permission of department head required. (Department credit not given for mathematics majors or minors. MS 331 and MS 332 may be repeated for credit up to a maximum combined total of six semester hours. Course graded Pass/Fail.)
332. **Peer Educator (2).** Academic credit given to advanced undergraduate students who provide tutorial assistance in the mathematics department. Students will work under the guidance of an experienced mathematics instructor. Permission of department head required. (Department credit not given for mathematics majors or minors. MS 331 and MS 332 may be repeated for credit up to a maximum combined total of six semester hours. Course graded Pass/Fail.)

344. **Differential Equations (3).** *Prerequisite: MS 126 with a "C" or better.* The methods of solving differential equations of first or second order and higher order linear equations, including series solutions and selected applications.
352. **Linear Algebra (3).** *Prerequisite: MS 126 with a "C" or better.* Matrices, linear systems, vector spaces with emphasis on algebraic structures.
390. **Numerical Analysis (3).** *Prerequisites: MS 352 and CS 231 with a "C" or better in both.* Numerical analysis and computing with emphasis on methods adaptable to electronic computing machinery.
397. **Directed Readings in Undergraduate Mathematics (1).** *Prerequisites: Advanced standing and approval of instructor.* This course may be repeated for credit up to a maximum of three hours.
399. **Study Tour (3).** Topics, excursions, and requirements determined by department. May be duplicated for credit; however, only three (3) credits may be applied toward any major or minor. Infrequently scheduled and subject to minimum and maximum numbers. Advance deposit required.
403. **Vector Analysis (3).** *Prerequisite: MS 227.* The algebra and calculus of vectors; applications to geometry, electricity, harmonic functions, and potentials.
404. **Mathematical Statistics II (3).** *Prerequisites: MS 227 and 304.* A continuation of MS 304. The Central Limit Theorem, order statistics, functions of random variables, properties of estimators, confidence intervals, hypothesis testing, and least squares regression models.
415. **Advanced Calculus I (3).** *Prerequisites: MS 227 and 300.* Real number system, elementary point set theory, limits, theory of continuous functions, differentiable functions.
416. **Advanced Calculus II (3).** *Prerequisite: MS 415.* Selected topics from advanced calculus, including differentiable functions, the Riemann integral, and sequences and series of functions.
423. **A Survey of Geometries (3).** *Prerequisite: MS 323.* Selected topics from advanced Euclidean geometry, finite geometries, Non-Euclidean geometry, and other related topics.
441. **Abstract Algebra I (3).** *Prerequisites: MS 300 and 352.* Algebraic structures, rings, and fields. The axiomatic approach.
442. **Abstract Algebra II (3).** *Prerequisite: MS 441.* Introduction to group theory and related topics.
451. **Functions of a Complex Variable (3).** *Prerequisites: MS 227 and 300 and 415.* Fundamental operations with complex numbers, differentiation and integration theorems, mappings, series, and residues.
475. **Senior Seminar in Mathematics (3).** *Prerequisites or corequisites: MS 415 or 441 or 451, and senior standing.* A capstone course in advanced mathematics. Goals include examining deeply the fundamental ideas of mathematics and connections among various branches of mathematics, exploring the historical development of major concepts, and further developing the habits of mind that define mathematical approaches to problems.
480. **Introductory Topology (3).** *Prerequisite: MS 415.* Basic topological concepts to include topological spaces, mapping, compactness, connectedness, and separation axioms.
484. **Partial Differential Equations (3).** *Prerequisites: MS 227 and 344.* Standard methods of solution: separation of variables, Fourier Series, Laplace Transforms. Selected applications.
499. **Undergraduate Research in Mathematics (3).** *Prerequisites: MS 302 or 304 or 415 or 441, senior standing, and permission of instructor.* A guided independent investigation of a topic outside the department's normal course offerings, to culminate in a written paper and oral presentation to the faculty.

**PLANS OF STUDY**  
**BACHELOR OF SCIENCE**  
**MAJOR: MATHEMATICS**

NOTE: This schedule reflects the mathematics program beginning with Calculus I (MS 125). Freshman mathematics majors needing additional preparation before beginning calculus will be placed in the appropriate algebra or precalculus courses that provide this preparation. See advisor.

*In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations.*

**FRESHMAN YEAR**

Fall	Spring
MS 125, Calculus I .....4	MS 126, Calculus II .....4
CS 230 .....3	CS 231 .....3
EH 101 .....3	EH 102 .....3
HY 101/201 .....3	HY 102/202 .....3
Social/Behavioral Science ..... 3	Social/Behavioral Science ..... 3
STU 101.....0	
16	16

**SOPHOMORE YEAR**

Fall	Spring
MS 227, Calculus III .....4	MS 300, Advanced Math .....3
Literature .....3	MS 352, Linear Algebra .....3
PHS 211 & 213 .....5	EH 141 .....3
Fine Arts .....3	Literature .....3
	PHS 212 & 214 ..... 5
15	17

**CONCENTRATION: THEORETICAL**

**JUNIOR YEAR**

Fall	Spring
MS 344, Differential Equations .....3	MS 390, Numerical Analysis.....3
MS 403 or 404 or 451 or 480 or 484 or 499.....3	MS 415, Advanced Calculus I .....3
Minor/Electives .....10	Minor/Electives .....10
16	16

**SENIOR YEAR**

Fall	Spring
MS 304, Math Statistics I .....3	MS 309, Combinatorics .....3
MS 416, Advanced Calculus II .....3	Minor/Electives .....13
Minor/Electives ..... 10	
16	16

**TOTAL HOURS: 128**

**CONCENTRATION: APPLIED**

**JUNIOR YEAR**

Fall	Spring
MS 344, Differential Equations .....3	MS 390, Numerical Analysis .....3
MS 403 or 404 or 451 or 480 or 484 or 499.....3	MS 415, Advanced Calculus I .....3
Minor/Electives ..... 10	Minor/Electives ..... 10
16	16

## SENIOR YEAR

Fall	Spring
MS 304, Math Statistics I .....3	MS 309, Combinatorics .....3
MS 416, Advanced Calculus II .....3	Minor/Electives .....13
Minor/Electives ..... 10	
16	16
<b>TOTAL HOURS: 128</b>	

## CONCENTRATION: GENERAL

### JUNIOR YEAR

Fall	Spring
MS 323, College Geometry .....3	MS 305 or 309, Number Theory or Combinatorics .....3
MS 344, Differential Equations .....3	MS 441, Abstract Algebra I .....3
Minor/Electives .....10	Minor/Electives ..... 10
16	16

### SENIOR YEAR

Fall	Spring
MS 302, Applied Prob and Stats .....3	MS 475, Senior Seminar in Math .....3
MS 415, Advanced Calculus I .....3	Minor/Electives .....13
Minor/Electives ..... 10	
16	16
<b>TOTAL HOURS: 128</b>	

## COMPUTER SCIENCE (CS) DESCRIPTION OF COURSES

201. **Introduction to Information Technology (3).** A brief exposure to theory and operations of information technology. Concepts presented include computer systems, hardware and software. Hands-on experience with selected productivity software packages. (Department credit not given for CS/CIS majors and/or minors.)
202. **Honors Introduction to Information Technology (3).** *Prerequisite: ACT score of 24 or above or SAT of 520 or above and basic computer proficiency.* Advanced coverage of the theory and operations of information technology. Hands-on experience with selected popular software packages for Web and program design. (Department credit not given for CS/CIS majors or minors.)
230. **Fundamentals of Computing (3).** Lecture/1 hour, Lab/2 hours. Sets, functions, propositional logic, number systems, data representation, binary arithmetic. Problem solving tools and techniques. Control structures. Data structures. Implementation using a high-level language. (Open to any major, but required for CS/CIS majors.)
231. **Computer Programming I (3).** Lecture/2 hours, Lab/1 hour. *Prerequisites: CS 230 and overall GPA of 2.0 or higher and MS 112 or higher level mathematics (excluding MS 113) or satisfactory score on the departmental placement test.* Algorithmic problem solving. Modular programming. Strings, multi-dimensional arrays, records, dynamic linked lists. Documentation. Testing and debugging. Developing robust, user-friendly programs. Integral, scheduled laboratory.
232. **Computer Programming II (3).** Lecture/2 hours, Lab/1 hour. *Prerequisite: CS 231.* Advanced problem solving. Efficiency and reuse. Abstract Data Types. Object-Oriented programming. Dynamic data structures: linked lists, queues, stacks. Recursive functions and procedures. Integral, scheduled laboratory.
234. **Discrete Computational Structures (3).** *Prerequisites: CS 230 and MS 112 or higher.* Introduction to the concepts, terminology and manipulative skills associated with combinatorial structures and logic. Sets and functions, partially ordered sets, trees and graphs, algorithms and induction. Boolean algebra and introduction to symbolic logic.
300. **Microcomputing (3).** *Prerequisite: CS 231.* Examination of micro-computers and their role in small to medium firms. Emphasis on applications, I/O operations and file handling in a laboratory environment.
302. **Database Applications (3).** *Prerequisite: CS 231.* Introduction to database management systems using a current DBMS package; development of menu-driven database applications.

304. **Technical Writing for Computer Science (3).** *Prerequisites: EH 102 and CS 230.* Introduction to the writing tasks necessary of computer technology professionals. Covers skills necessary to prepare the technical reports, presentations, and documentation specific to the information technology environment.
305. **Spreadsheet Modeling (3).** *Prerequisites: MS 112 or higher and CS 201.* The use of spreadsheet software in modeling business problems. Extensive hands-on use of spreadsheets is required. (Department credit not given for CS/CIS majors or minors.)
307. **Management of Information Security and Forensics (3).** *Prerequisite: CS 201.* Study of information security and digital forensics using practical case studies. Emphasis is on developing security policies, security management and practices, utilization of digital forensic tools and techniques, risk management, security project management, and protection mechanisms. Major components of the course are hands-on projects on digital forensic investigation and security management case studies. (CS 307 is cross-listed with EM 325, but only one course can be counted for credit.)
308. **Embedded and Control Systems Security (3).** *Prerequisite: CS 231.* A study of embedded system architectures, security, and digital forensics; the role of hardware abstraction layers and middleware; real-time OS issues, such as concurrency, synchronization, and resource management; and the components and applications of industrial control systems. Laboratory activities include: ladder logic programming, embedded systems programming, and digital forensics for microcontrollers, mobile computing platforms, and industrial control systems.
309. **Introduction to E-Commerce (3).** *Prerequisite: CS 201.* This course focuses on a rich variety of models and strategies for connecting individuals, businesses, governments, and other organizations to each other. The topics covered in the course will span value and supply chain concepts, varying business relationship types, as well as obligations for protection of individual privacy and organizational security.
310. **Software Engineering I (3).** *Prerequisite: CS 232.* Introduction to the systems development life cycle, software development models, analysis and design techniques and tools, and validation and verification testing. Emphasis and experience will be on software engineering within a team environment.
311. **Management Information Systems (3).** *Prerequisite: CS 309.* Study of the systems concept and its relationship to information requirements for decision making and management in traditional and e-commerce environments.
312. **Software User Documentation (3).** *Prerequisites: CS 310 and EH 102.* Introduction to writing, analyzing, and evaluating effective software documentation. Exposure to proposal writing. Emphasis on writing software user manuals.
315. **Introduction to Web Design (3).** *Prerequisite: CS 201.* Step-by-step process of creating a well-designed website. Emphasizes web design techniques resulting in fast-loading and well-placed graphics, cohesive color and typography across platforms and browsers, clear navigational interface, and appropriate use of sound and video. Includes studio component where students analyze, design, and implement websites.
322. **Document Management (3).** *Prerequisite: CS 304.* Trains students to manage dynamic documents as well as apply document imaging technologies to achieve a paperless office environment. Students will learn about the technology of scanning, importing, transmitting, organizing, indexing, storing, protecting, locating, controlling, authenticating, retrieving, viewing, printing, and preserving documents for document imaging systems and digital libraries. This course has direct implications for project management and information assurance, among other topics that will be addressed.
325. **Web Scripting (3).** *Prerequisite: CS 231 or 315.* A practical hands-on introduction to web scripting for writing client-side scripts. Topics include fundamentals of scripting as a web programming language, scripting techniques and programming concepts, such as control structures, data structure, objects, event handling and functions. Multiple scripting languages will be used for the hands-on projects.
331. **Data Structures and Algorithms (3).** *Prerequisite: CS 232.* Design, analysis, and implementation of fundamental data structures: trees, heaps, and graphs. Basic algorithmic analysis and strategies. Basic computability and introduction to distributed algorithms.
333. **Computer Organization and Architecture (3).** *Prerequisite: CS 232.* Digital logic; instruction set architecture and computer organization; memory systems; functional organization; interfacing and communication; multiprocessing and alternative architectures.
339. **Game Design I (3).** *Prerequisites: EH 102 and CS 201 or CS 230.* Principles of game design. Covers analysis of genres; gameplay; conceptual design; story and character development; effects of art, lighting, and sound; interface design; level design; and the business of game development.
340. **Discovering Genomics and Bioinformatics (3).** *Prerequisite: CS 230.* The course provides a fundamental background in bioinformatics, both theoretical (bioinformatics algorithms) and practical (databases and web-based tools used to study problems in biology), to students in computer science or in biological sciences. Introduction to the biological problems addressed in this course will be provided, as well as a formal definition of the computational problems and a deep exploration of the algorithms for solving these problems. Practical use of topics introduced in class is demonstrated by laboratory exercises and homework problems. Students are grouped for class projects such that each group contains at least one life scientist and one computer scientist. (CS 340 is cross-listed with BY 340, but only one course may be taken for credit.)
350. **Fundamentals of Computer Operating Systems (3).** *Prerequisite: CS 232.* Overview of operating system concepts and structures. Study of process management, including synchronization techniques for cooperating processes,

main memory management, including virtual memory systems, system resource allocation and deadlocks, file system implementation, secondary storage management and input/output subsystems.

370. **COBOL for Information Systems (3)**. Lecture/3 hours, Lab/1.5 hours. *Prerequisite: CS 232*. An introduction to solving business problems using structured programming techniques and methodology for both interactive and batch processing. Integral, scheduled laboratory.
399. **Study Tour (3)**. Topics, excursions and requirements determined by department. May be duplicated for credit; however, only three (3) credits may be applied toward any major or minor. Infrequently scheduled and subject to minimum and maximum numbers. Advance deposit required.
400. **Business Information Management (3)**. *Prerequisite: CS 201 or equivalent*. Study of terminology and concepts of computer-based management information systems. Emphasis on applications for developing and managing World-Wide Web page information. (Department credit not given for CS/CIS majors and/or minors.)
412. **Disaster Response and Recovery (3)**. *Prerequisite: CS 201*. How people, groups, organizations, communities, and governments manage disasters in the immediate aftermath and recover from their effects, including social, physical, business, and infrastructure problems as well as intra- and inter-organizational issues. (CS 412 is cross-listed with EM 411, but only one course can be counted for credit.)
415. **Dynamic Web Application (3)**. *Prerequisite: CS 488*. The course will present dynamic web based application architecture, web scripting languages syntax, principles and techniques for developing database driven web applications using multiple web scripting languages. Students will gain experience in web scripting programming via the completion of a series of practical dynamic website projects.
420. **Algorithms Design/Analysis (3)**. *Prerequisite: CS 331*. Survey of design and analysis of efficient algorithms. Introduces methods of describing algorithm time and space complexity and various problem-solving techniques.
425. **Web Application Development Using Web Services (3)**. *Prerequisite: CS 310*. Introduction to technologies and tools for developing Web applications using Web Services, emphasizing organizational issues, challenges, and security concerns related to the effective deployment of those applications.
430. **Human-Computer Interaction (3)**. *Prerequisite: CS 232*. Human-computer interface, human performance, diversity, and mental models, interaction devices, dialog styles, interface styles, error handling, documentation, and evaluation of software interface designs.
432. **Computer Graphics (3)**. *Prerequisites: CS 232 and MS 113 or equivalent*. Hardware and software components of computer graphic systems, input representation, and transformation of graphic information. Two-dimensional and three-dimensional transformations; perspective, hidden-line algorithms, shading. Interactive graphics. Survey of applications-
438. **Introduction to Business Intelligence and Data Mining (3)**. *Prerequisite: CS 488*. Introduction to business intelligence and data mining methodologies and tools that enable users to analyze big data and develop insight for decision making. This course provides students thorough conceptual framework and practical experience in business intelligence and related topics. Topics covered include business intelligence, data mining methods, predictive analysis, information quality and data warehousing management. Hands-on assignments will apply the skills learned.
439. **Game Design II (3)**. *Prerequisites: CS 232 and CS 339*. Principles of game development. Covers relevant game mathematics and data structures; selected artificial intelligence topics common to game development; programming and optimization techniques; game engines; and software engineering and project management for game development.
444. **Artificial Intelligence (3)**. *Prerequisite: CS 331 or 350 or permission of instructor*. An introduction to the principles and methods used in artificial intelligence programs with a focus on autonomous agents. Offered every two years during fall semester.
450. **Computer Networking (3)**. *Prerequisite: CS 350*. Study of computer interconnection and protocols with emphasis on network layers, error detection/correction, data compression, and topologies. Project approach utilized.
453. **Theory of Languages and Automata (3)**. *Prerequisite: CS 232*. Formal representations for language syntax, semantics, and underlying language theory. Study of automata theory: finite automata, pushdown automata, and Turing machines.
461. **Critical Infrastructure (3)**. *Prerequisite: CS 201*. Identifies what constitutes critical infrastructure, including cyber as well as physical infrastructure. Evaluation of strategies for promoting vulnerability assessments and risk reduction, and protection of critical infrastructures are examined. (CS 461 is cross-listed with EM 461, but only one course can be counted for credit.)
462. **Ethics and Legal Issues (3)**. *Prerequisite: CS 310 or permission of instructor*. An overview of legal, ethical, global and professional issues in computing.
464. **Honors Ethics and Legal Issues (3)**. *Prerequisite: Completion of CS 310 (with "B" or above) or permission of the instructor*. This course is an advanced (honors) course that provides an overview of the legal, ethical, global and professional issues in computing. This course will enable students to identify ethical issues in technology, perform ethical analyses using a variety of ethical theories, and to critically read professional literature in the field. Students will develop an awareness of ethical issues in technology, including, but not limited to, the internet (e.g.

freedom of expression on the internet), intellectual property rights, privacy, security, reliability, professional ethics, employment issues and technology, and plagiarism, and apply ethical theories to issues in those domains.

- 470. **Computer Security (3).** *Prerequisite:* CS 350. Study of network security architectures and models, cryptography, authentication and authorization protocols, secure application and systems development, and federal regulations and compliance. Emphasis is on security professional certification.
- 488. **Database Systems (3).** *Prerequisite:* CS 232. Concepts and terminology associated with data structure, file organization, access methods, packaged systems, database design and database systems.
- 491. **Software Engineering II (3).** *Prerequisite:* CS 310. This course is a continuation of software engineering that emphasizes the entire software process, developing and using process and product metrics, and managing software projects. Both individual and team projects will develop student expertise.
- 499. **Special Topics (1-6).** *Prerequisites:* Senior status and permission of department head. Exposes student to current or developing topics in computer science or computer information systems. Projects/topics are jointly selected by student and computer science instructor. This course can be taken multiple times of variable credit hours up to a total maximum of six credit hours.

### PLANS OF STUDY

#### BACHELOR OF SCIENCE MAJORS: COMPUTER SCIENCE AND COMPUTER INFORMATION SYSTEMS

NOTE: This schedule reflects the computer science program beginning with Calculus I (MS 125) and the computer information systems program beginning with Calculus and Its Applications (MS 120) or Calculus I (MS 125). Freshman computer science majors needing additional preparation before beginning calculus will be placed in the appropriate algebra or precalculus courses that provide this preparation. See advisor.

#### COMPUTER SCIENCE

*In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations.*

#### FRESHMAN YEAR

Fall	Spring
CS 201, Information Technology .....3	CS 231, Computer Programming I.....3
CS 230, Fund. of Computing .....3	CS 234, Discrete Comp Structures.....3
EH 101 .....3	EH 102 .....3
Fine Arts .....3	EH 141 .....3
Natural Science sequence ..... 4-5	Natural Science sequence .....4-5
STU 101.....0	
16-17	16-17

#### SOPHOMORE YEAR

Fall	Spring
CS 232, Computer Programming II .....3	CS 331, Data Structures & Algorithms .....3
CS 304, Tech Writing for Comp Sc .....3	CS 333, Comp Org & Architecture .....3
MS 125, Calculus I .....4	MS 126, Calculus II .....4
HY 101/201 .....3	HY 102/202.....3
CS Elective* .....3	CS 310, Software Engineering I .....3
16	16

#### JUNIOR YEAR

Fall	Spring
CS 488, Database Systems .....3	CS 350, Operating Systems.....3
MS 227, Calculus III .....4	CS 491, Software Engineering II .....3
CS Elective* .....3	Natural Science .....4
Literature .....3	Literature .....3
Social/Behavioral Science .....3	Social/Behavioral Science .....3
16	16

**SENIOR YEAR**

Fall		Spring	
CS 450, Computer Networking .....	3	CS 462, Ethics & Legal Issues .....	3
CS Elective* .....	3	CS Elective* .....	3
MS 302, Applied Prob & Stats .....	3	MS 352, Linear Algebra.....	3
Minor / Electives .....	6-8	Minor / Electives .....	6
	<hr/>		<hr/>
	15-17		15
		<b>TOTAL HOURS: 128</b>	

\*Refer to specific elective requirements for each concentration

**COMPUTER INFORMATION SYSTEMS**

*In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations.*

**FRESHMAN YEAR**

Fall		Spring	
CS 201, Information Technology .....	3	CS 231, Computer Programming I.....	3
CS 230, Fund. of Computing .....	3	CS 309, Intro to E-Commerce .....	3
EH 101 .....	3	EH 102 .....	3
Fine Arts .....	3	EH 141 .....	3
Natural Science sequence .....	4-5	Natural Science sequence .....	4-5
STU 101.....	0		
	<hr/>		<hr/>
	16-17		16-17

**SOPHOMORE YEAR**

Fall		Spring	
CS 232, Computer Programming II .....	3	CS 311, MIS.....	3
CS 304, Tech Writing for Comp Sc .....	3	CS 333, Comp Org & Architecture .....	3
MS 120 or 125, Calc/Apps or Calc I .....	3-4	EC 221 .....	3
ACC 200 .....	3	HY 101/201.....	3
CS Elective* .....	3	CS 310, Software Engineering I .....	3
	<hr/>		<hr/>
	15-16		15

**JUNIOR YEAR**

Fall		Spring	
CS 370, COBOL for Info Sys .....	3	CS 350, Operating Systems.....	3
CS 488, Database Systems .....	3	CS 491, Software Engineering II .....	3
CS Elective* .....	3	MGT 301 .....	3
Literature .....	3	HY 102/202.....	3
Minor / Electives .....	3	Literature .....	3
Minor / Electives .....	3		
	<hr/>		<hr/>
	18		15

**SENIOR YEAR**

Fall		Spring	
CS 450, Computer Networking .....	3	CS 462, Ethics & Legal Issues .....	3
CS Elective* .....	3	CS Elective* .....	3
MS 302, Applied Prob and Stats .....	3	FIN 301 .....	3
MKT 301 .....	3	PSY 201 .....	3
Minor / Electives .....	3	Minor / Electives .....	3-6
	<hr/>		<hr/>
	15		15-18
		<b>TOTAL HOURS: 128</b>	

\*Refer to specific elective requirements for each concentration

## DEPARTMENT OF MUSIC (MU)

201 MASON HALL

Accredited by the National Association of Schools of Music

Department Head: TBA

Professors: Baptiste, Collins, Corbin, Freeland, McCutchen, Steward

Associate Professors: Gordon, Logsdon, Wight

Assistant Professors: Benson, Lambert, Nevala, Probst, Woodward

Instructors: Brandon, Gillespie, Hosmer, Oft, Stovall, Stricklin

### Mission

The mission of the Department is to develop musicians who are aware of the past, engaged in the present, embracing the future, and capable of leading and making musical contributions in whatever community or walk of life they choose. We offer professional training and promote scholarship among students in the discipline of music, sharing the expertise of our faculty in the training of music educators, scholars and performers. We recognize the interdependence among performance studies, music education and the theoretical and historical aspects of musical study, and we strive to instill excellence in each of these areas. We provide leadership for the region and serve the musical needs of the University, the general college student, campus cultural goals and the larger surrounding community through ensembles, solo performances and curricular offerings.

The Department of Music offers a Bachelor of Arts degree in Music with two concentrations. Concentration One in Music Education fulfills the requirements for the professional certificate to teach music in Alabama public schools on both the elementary and secondary levels. Concentration Two in General Music offers a program designed for the study of music within a liberal arts curriculum and requires a non-music minor.

*Eligibility requirements: Students seeking to pursue a degree in Music must be determined as eligible for the program. Eligibility requirements include a formal audition in the student's primary performance medium (vocal or instrumental), theory and keyboard examinations and evaluation of the student's potential for success by a faculty committee. The procedures are in addition to University admission requirements. Music auditions and examinations may be arranged through the Music Office. A program assessment review will be accomplished at the end of the sophomore year to determine eligibility to advance to upper division level music studies.*

### Music Major

See "Plan of Study" for either Concentration One or Concentration Two located after the "Description of Courses" section. All students, but especially potential transfer students, should note the specific courses required for their selected "Plan of Study." Students may also obtain a Degree Worksheet showing the specific courses required for their chosen concentration at [http://www.jsu.edu/music/student\\_resources.html](http://www.jsu.edu/music/student_resources.html).

### Music Minor

Music 101, 102 (Music Theory) .....	6
Music 111, 112 (Aural Skills) .....	2
Primary Applied Music (3 consecutive semesters) .....	6
Music 236 (Honors Introduction to Music) .....	3
Music Elective 300+ .....	4
Music 104 (Concerts and Recitals – 2 semesters) .....	0
Ensemble (3 semesters, 2 must be 300+) .....	3
<b>Total .....</b>	<b>24</b>

### Music Electives for Non-music Majors

Introduction to Music (MU 233) and all ensembles are available to any student in the University and are designed to meet the needs of the general student who wishes to increase his or her appreciation and understanding of music.

## APPLIED MUSIC DESCRIPTION OF COURSES

Courses in applied music include individual and class instruction in voice, piano, or band and orchestral instruments. The student may elect that area of individual instruction best adapted to his/her own individual needs. Class instruction is designed to cover all phases and activities of vocal and instrumental music to insure that the student receives a practical and broad musical experience.

Each student must take a placement examination for the first course attempted in any applied music area, and performance examinations are given at the end of each semester. **All Music majors must pass a piano proficiency**

**examination (MU 299) before graduation.** This test will be administered by the piano faculty and may be taken at any time during the student's undergraduate study.

All students majoring in Music will appear in recital performance. Specific degree requirements concerning recital performance may be obtained from the academic advisor. The academic advisor reserves the right to advise individual students to suit individual needs.

## PERFORMANCE AND APPLIED MUSIC (MU) DESCRIPTION OF COURSES

Applied Music courses are available to all University enrolled students regardless of major or minor. Entrance to each of the courses, however, is determined by a placement test prior to the student's registration to determine ability to study at the undergraduate level and requires permission of the individual instructor. Students enrolled in Applied Music courses will meet public performance recital requirements and end of semester Music Jury performance examinations as specified by the instructor.

**113 through 414. Secondary Applied Music (2 each semester).** These courses are available so that students, upon the approval of the instructor and the department head, may broaden their performance skills in a secondary area in addition to the primary area. Students needing additional skill development on a particular instrument may enroll in Secondary Applied Music in preparation for taking courses at the Primary Applied level.

**134 through 435. Primary Applied Music (2 each semester).** *Prerequisite for MU 334 and above: MU 298.* For Music majors and minors, upon approval of instructor. Primary Applied Music includes mastery of etudes (studies), significant music literature and improvisation. Public performance is a required component of the course.

**Individual Voice.** Training the solo voice with emphasis on vocal technique, song interpretation, and repertoire. Materials are drawn from the rich heritage of song literature from Elizabethan song-writers and early Italian masters to 21st Century composers. Seminars in vocal repertoire and performance help students gain a fuller knowledge of and experience in the art of singing.

**Individual Piano.** The study of the piano involving scales (major, minor, and chromatic), arpeggios (major, minor, dominant sevenths, and diminished sevenths), transpositions, sight reading, and improvisations of melodies with accompaniment. Repertoire for piano, depending upon level, to be representative of all periods of musical history. Repertoire class is intended to increase the student's knowledge of piano literature and performance techniques.

**Individual Organ.** Before beginning the study of organ, the student should already have mastered fundamental piano technique. Basic repertoire includes works ranging from Baroque to contemporary composers.

**Individual Flute.** A graded selection of materials will be used to build technique and musicianship, including scales and arpeggio studies in various forms and etudes by Garibaldi, Andersen, Berginguier, Moyses, Bozza, and others. Repertoire of all periods will be studied, including works by Bach, Handel, Vivaldi, Chaminade, Hindemith, Poulenc, Debussy, Mozart, and others.

**Individual Oboe.** Studies by Frerling, Barret, Andraud, and others. Repertoire of all historical periods, including Handel Sonatas and Concerti Grossi Nos. 8, 9, and 10; Schumann Romances, Op. 94; Marcello Concerto in C minor; Hindemith Sonata; Nielsen Fantasy Pieces, Op. 2; and others. Excerpts from orchestral and band repertoire.

**Individual Clarinet.** A graded selection of materials will be used to build technique and musicianship, including scales and arpeggio studies in various forms and etudes by Rose, Thurston, Bozza, Polatschek, Gambaro, Capelle, and others. Repertoire of all periods will be studied, including works by Stamitz, Bozza, Marty, Von Weber, Mozart, Brahms, Hindemith, Debussy, and others.

**Individual Saxophone.** A graded selection of materials will be used to build technique and musicianship, including scales and arpeggio studies in various forms and studies by Teal, Mule, Samie, Berbiquier, Terschak, Soussman, Boehm, Ferling, and others. Repertoire of all periods will be studied.

**Individual Bassoon.** Studies by Weissenborn, Jancourt, Oubradous, and others. Repertoire from all periods, including Mozart Concerto; transcriptions of Bach Cello Suites; Weber Concerto in F, Op. 75; Hindemith Sonata; Saint-Saens Sonata, Op. 168; Dunhill Lyric Suite, Op. 196; and others. Excerpts from standard orchestral and band literature.

**Individual Trumpet or Cornet.** Discussion and mastery of basic tone production skills, such as breath support, embouchure formation and articulation. Development in these areas will use studies by Stamp, Arban, Clarke, Schlossberg and others. Musical and technical development will be accomplished by preparing lyrical and technical etudes of Arban, Brandt, Charlier and others. Preparation of solo and ensemble pieces as well as orchestral excerpts, including works by Hindemith, Haydn, Hummel, Bozza and others. Familiarity with and proficiency performing on various keyed trumpets, including C trumpet, D/Eb trumpet and piccolo trumpet. Performance for student peers in studio class.

**Individual French Horn.** Tone and technic study, such as Pares Daily Exercise, Pattag Selected Studies, Alphonse studies, etc. Solos representative of the repertoire, such as those by Mozart, Cohen, and Busser. Muting and transposition techniques.

**Individual Euphonium.** A comprehensive study of manuscript and published material dealing with breath support and control, embouchure formation and development, tone production, articulation, and intonation. Methods and studies will be used for the development of musicianship and technique. The study of alto, tenor, bass, and treble

clefs will be facilitated. Solo repertoire, both original and in transcription, of all periods will be studied. Excerpts from the standard band and orchestral literature will be studied as well.

**Individual Trombone.** A comprehensive study of manuscript and published material dealing with breath support and control, embouchure formation and development, tone production, articulation, and intonation. Methods and studies for the development of musicianship and technique, single and double-rotor skills, facility in reading tenor and alto clefs by Arban, Ostrander, Rochut, Blume, Blazhevich, Kopprasch, and others. Solo repertoire, both original and in transcription, of all periods, including works by J. S. Bach, Wagenseil, Saint-Saens, Hindemith, Martin, Bozza, and others. Individual and ensemble study of excerpts from the standard orchestral literature.

**Individual Tuba.** A comprehensive study of manuscript and published material dealing with breath support and control, embouchure formation and development, tone production, articulation, and intonation. Methods and studies will be used for the development of musicianship and technique. Solo repertoire, both original and in transcription, of all periods will be studied. Excerpts from the standard band orchestral literature will be studied as well.

**Individual Percussion.** A comprehensive study of manuscript and published material dealing with coordination and dexterity, sound quality, rhythmic accuracy, intonation, and grip formation. Methods and studies will be used for the development of musicianship and technique on snare, timpani, keyboard percussion, and drum set. Solo repertoire, chamber works, and excerpts from standard band orchestral repertoire will be studied.

**300. Junior Recital (0).** *Corequisite: MU 335.* Junior Recital is designed to be taken concurrently with the sixth semester of applied music during which the junior recital is presented.

**400. Senior Recital (0).** *Corequisite: MU 435.* Senior Recital is designed to be taken concurrently with the eighth semester of applied music during which the senior recital is presented.

## MUSIC THEORY AND LITERATURE (MU) DESCRIPTION OF COURSES

Majors are required to complete six semesters of MU 104, Concerts and Recitals, and minors are required to complete two semesters of MU 104. Requirements for this course for transfer students are determined by the department head based upon a review of the transcript.

**101. Music Theory (3).** *Prerequisite: Ability to read music (base and treble clefs). Corequisite: MU 111.* Music fundamentals, including written skills, keys, scales, intervals, triads, and elementary harmonic movement.

**102. Music Theory (3).** *A continuation of MU 101, a prerequisite. Corequisite: MU 112.* Includes knowledge of figured bass, non-harmonic tones and dominant seventh chords.

**104. Concerts and Recitals (0 each semester).** Applied students must attend a specified number of department-sponsored or off-campus concerts, recitals, or approved performances each semester. This course may be repeated for a total of six (6) times.

**111. Aural Skills (1).** *Prerequisite: Ability to read music (base and treble clefs). Corequisite: MU 101.* The development of musicianship skills, particularly through singing and aural dictation.

**112. Aural Skills (1).** *Prerequisite: MU 111. Corequisite: MU 102.* The development of musicianship skills, particularly through singing and aural dictation.

**201. Music Theory (3).** *Prerequisite: MU 102. Corequisite: MU 211.* The study of voice leading, secondary dominants, modulation, and small forms.

**202. Music Theory (3).** *A continuation of MU 201, a prerequisite. Corequisite: MU 212.* The study of advanced chromatic harmony and large forms.

**203. History of American Jazz (3).** A comprehensive, formalized study of American Jazz Masterpieces from 1900 to the present.

**211. Aural Skills (1).** *Prerequisite: MU 112. Corequisite: MU 201.* The development of musicianship skills, particularly through singing and aural dictation.

**212. Aural Skills (1).** *Prerequisite: MU 211. Corequisite: MU 202.* The continued development of musicianship skills, particularly through singing and aural dictation.

**233. Introduction to Music (3).** Music fundamentals, literature, and appreciation. (Meets Area II General Studies Requirement for majors other than music. Music majors and minors must take MU 236.)

**236. Honors Introduction to Music (3).** *Prerequisites: Permission of instructor; ability to read musical notation. Substitutes for MU 233.* Advanced study in basic music literature from pre-Baroque to present stressing development of recognition of various styles, genres, and musical forms through individualized listening activities.

**301. Music Theory (2).** *Prerequisite: MU 202.* A study of the techniques and styles employed by art music composers since 1900. The course emphasizes learning how to listen to, appreciate, and interpret music written in the last hundred years.

**302. Music Theory (2).** *Prerequisite: MU 202.* The study of tonal counterpoint which pertains to the art of combining two or more independent musical lines to create a rhythmically and harmonically coherent musical fabric consistent with common practices of tonal composition.

332. **Pre-College Piano Literature (2).** *Prerequisite: MU 214 or 234 (Applied Piano).* Study of literature that forms the basis of piano instruction at the elementary through intermediate levels from all music style periods.
353. **Survey of Black Music (3).** An analytical examination of the works, careers, and performances of leading Afro-American musicians from the 18th century to the present.
399. **Study Tour (3).** Topics, excursions, and requirements determined by department. May be duplicated for credit; however, only three (3) credits may be applied toward any major or minor. Infrequently scheduled and subject to minimum and maximum numbers. Advance deposit required.
404. **Music Theory: Composition (3).** An introduction to the art of composition through analysis and application of contemporary techniques.
405. **Theory and Composition of American Jazz (3).** *Prerequisite: MU 401.* A comprehensive formalized study of American Jazz Masterpieces from 1900 to the present. Ear training, harmonic analysis, formal and structural considerations, composition, arranging.
408. **Song Literature I (3).** *Prerequisite: Permission of instructor.* A survey course examining the major categories of solo vocal literature with a detailed study of selected songs.
409. **Opera Literature (3).** *Prerequisite: Permission of instructor.* A survey of the development of opera as a form with a detailed study of selected works.
410. **Song Literature II (3).** *Prerequisite: MU 408.* A survey course examining art song literature through the 21st century, with a detailed study of selected songs.
411. **Music History and Literature (3).** *Prerequisite: MU 236.* A survey course correlating the development of music literature with the historical development of world culture from the early beginning of music to the Baroque period.
412. **Music History and Literature (3).** *Prerequisite: MU 236.* A continuation of MU 411 from the Baroque period to the present.
428. **Piano Literature (3).** *Prerequisite: MU 236.* A survey of piano repertoire from the early Baroque era through the Contemporary period.
432. **Orchestral Music Literature (3).** *Prerequisite: MU 236.* A survey of stylistic development in the history of orchestral literature and detailed study of selected examples.
433. **Chamber Music Literature (3).** *Prerequisite: MU 236.* A survey of stylistic development in the history of instrumental chamber music and detailed study of selected examples.
438. **Percussion Literature (3).** A survey of percussion materials for the public school or college teacher. Literature for percussion and mallet instruments will be examined and discussed.
439. **Topics in Music Literature (3).** An in-depth survey of selected topics in music literature of various periods. Topics to be posted in the Department of Music. Course number may be duplicated for credit for four different topic selections (12 semester hours).
440. **Band Literature for Teachers (1).** A survey of current repertoire appropriate for various levels of developing instrumental groups.
441. **Choral Literature for Teachers (1).** A survey of choral repertoire from the Renaissance through the 21st Century, including music appropriate for elementary, middle school and high school choirs.

#### PROFESSIONAL PREPARATION (MU) DESCRIPTION OF COURSES

150. **Technology in Music (1).** An introduction to basic software programs used in music applications, including musical notation and aural skills, as well as those found in educational settings.
169. **Basic Piano Skills (1).** Designed for music majors with minimal keyboard ability who are unable, through placement exam, to enter Class Piano Skills I (MU 170).
- 170, 171. **Class Piano (1) (1).** *Prerequisite: Successful completion of MU 169 or the MU 169 Piano Diagnostic Exam.* A sequence of two courses leading to the acquisition of basic keyboard skills through laboratory instruction. Completion of the sequence prepares the student to successfully complete the MU 299 Piano Proficiency Exam.
- 180, 181. **Class Piano Repertoire I and II (1) (1).** *Prerequisite: MU 299 or permission of instructor.* Designed to broaden the knowledge of piano literature for pianists.
210. **Conducting (2).** *Prerequisites: MU 102 and 135 or equivalent.* Principles of interpretation and techniques of conducting are stressed through detailed study of selected compositions.
240. **Music Business Fundamentals (1).** An introduction to business fundamentals for music educators and commercial music practitioners.
244. **Introduction to Music Education (2).** An introduction to current issues in the teaching field of music, including a series of supervised in-school observational experiences. (To be taken after the first 32 hours.)

253. **Opera Workshop (1).** Operatic techniques for the singer/actor: the cultivation, through study and performance of free, expressive and significant movement on stage, and the development of musical, dramatic and muscular sensitivity as the basis of good operatic theater.
260. **Class Guitar (1).** A beginning class introducing basic skills on the guitar, such as tuning, reading easy music, development of strummed and finger style accompaniments to songs, as well as basic vocabulary of chord positions.
298. **Mid-degree Assessment Review (0).** An assessment of the student's progress and potential for successful completion of the degree requirements.
299. **Piano Proficiency (0).** An assessment tool to ensure acquisition of skills in the areas of keyboard technique, transposition, harmonization and repertoire. All music majors must pass a piano proficiency examination before graduation.
310. **Performance Anxiety (2).** Explores mental and physical aspects of performance anxiety and explores coping techniques and strategies. Musical performances in various settings are part of course requirements.
316. **Arranging and Orchestration (2).** *Prerequisite: MU 150 (Tech in Music).* A practical exploration of the techniques of writing and arranging music for instruments.
317. **Choral Arranging (2).** *Prerequisite: MU 150 (Tech in Music).* Arranging and writing choral music for a variety of choral combinations and sizes with emphasis on those found in school and community settings.
318. **Marching Band Techniques (2).** A study of various styles, including the formulation of drill and show writing for bands of varying sizes and abilities.
320. **Piano Pedagogy Fundamentals (2).** *Prerequisite: MU 214 or 234 (Applied Piano).* Fundamentals in forming a teaching philosophy, surveying methods for beginners, and organizing an independent studio (business and professional aspects).
350. **Advanced Technology (1).** An exploration of advanced music software programs, including digital audio workstations used in professional digital recording and MIDI realization studios, and an introduction to audio recording techniques and the fundamentals of building a personal home or professional studio.
360. **Class Voice I (1).** Introduces the art of singing, including breath control, pronunciation, use and care of the vocal instrument, and repertoire.
361. **Class Voice II (1).** *Prerequisite: MU 360.* Continues instruction in the art of singing, including breath control, pronunciation, use and care of the vocal instrument and repertoire.
363. **Class Voice Pedagogy (1).** A study of methods of vocal training with emphasis on vocal health and development for amateur and school-aged singers. *Course offered in even years only.*
365. **Diction I (1).** A study and practice of the phonetic sounds used in singing English and Italian languages. *Course offered in Fall semester only.*
366. **Diction II (1).** *Prerequisite: MU 365.* A study and practice of the phonetic sounds used in singing French and German languages. *Course offered in Spring semester only.*
367. **Diction III (1).** *Prerequisite: MU 366.* A performance application of phonetic articulation in English, French, Italian and German languages.
370. **Keyboard Harmony and Accompaniment (1).** *Prerequisite: MU 299.* A course designed to expand keyboard skills to include use of harmonic structures in accompaniments, sight reading, improvisation and simple repertoire.
371. **Keyboard Harmony and Accompaniment II (1).** *Prerequisite: MU 299.* A continuation of MU 370, designed to further keyboard skills and practical applications in accompaniments, sight reading, and repertoire.
378. **Instrumental Pedagogy Lab (1).** *Prerequisite: Permission of instructor.* Provides a laboratory experience for students to apply teaching concepts to practical situations. Normally taken in conjunction with either MU 380, 381 or 391.
379. **Vocal Pedagogy Lab (1).** *Prerequisite: Permission of instructor.* Provides a laboratory experience for students to apply teaching concepts to practical situations. Normally taken in conjunction with MU 363.
380. **Class Woodwinds (1).** Basic playing skills and teaching strategies of the flute, oboe, bassoon, clarinet and saxophone for the music educator.
381. **Class Brass (1).** Explores the rudiments of brass playing through practice on at least two different brass instruments. Basic concepts, such as breathing, embouchure and articulation, are discussed from a pedagogical standpoint, and students articulate their understanding of these concepts by conducting the class through exercise material.
384. **Beginning Band Foundations (1).** Instruction techniques for teaching beginning bands, including appropriate repertoire, methods, procedures, and scheduling.
385. **General Instrumental Techniques (1).** An introduction to basic performance skills in major instrumental families (brass, woodwind, percussion). Designed for music majors in vocal/choral concentration.
390. **Class Strings (1).** Gives a practical understanding of how to teach an orchestral string instrument, including the basic principles of tone production, bowing technique, and establishing good playing practices.

391. **Class Percussion (1).** Introduces the fundamental techniques of percussion instruments for the music educator.
401. **Improvisation and Arranging (1).** Involves the comprehension and application of improvisational skills for the beginning jazz instrumentalist. The class will consist of exploring the use of scales, modes, melodic patterns and common jazz motifs as well as the study of listening and performing.
402. **Improvisation and Arranging (1).** *Prerequisite: MU 401.* A continuation of MU 401 focusing on the continued development of the improvisational skills.
403. **Improvisation and Arranging (1).** *Prerequisite: MU 402.* A continuation of MU 402 focusing on the continued development of the improvisational skills.
415. **Advanced Brass Methods and Literature (3).** *Prerequisite: Upper division undergraduate or graduate standing, with permission of instructor.* A survey of brass teaching materials for the public school or college teacher. Methods, etudes, and special studies of each instrument will be examined and discussed. Available records and corollary readings will supplement class discussion.
419. **Advanced Woodwind Methods and Literature (3).** *Prerequisite: Upper division undergraduate or graduate standing, with permission of instructor.* A survey of woodwind teaching materials for the public school or college teacher. Methods, etudes, and special studies of each instrument will be examined and discussed. Available recordings and corollary readings will supplement class discussion.
421. **Individual Study in Music Composition I (1).** Individual instruction in techniques of musical composition.
422. **Individual Study in Music Composition II (1).** *Prerequisite: Satisfactory completion of MU 421 and permission of instructor.* Individual instruction in techniques of musical composition.
443. **Instrumental Conducting (3).** *Prerequisite: MU 210.* Training and experience in the techniques of instrumental conducting through the study of representative instrumental literature. Discussion of score preparation and rehearsal procedures. *Course is offered in Spring semester only.*
444. **Choral Conducting (3).** *Prerequisite: MU 210; Corequisite: MU 418.* Training and experience in the techniques of choral conducting through the study of representative choral literature. Discussion of score preparation and rehearsal procedures. *Course is offered in Fall semester only.*
453. **Opera Workshop (1).** Operatic techniques for the singer/actor: the cultivation, through study and performance of free, expressive and significant movement on stage, and the development of musical, dramatic and muscular sensitivity as the basis of good operatic theater.
455. **Practicum (2).** Directed and supervised experiences in observation and participation in music activities at various age levels. Allows student to observe and apply music teaching concepts to classroom situations.
471. **Elementary Music Materials and Methods (3).** Methods, materials, and problems of teaching general music. Grades N-6. *Course is offered in Spring semester only.*
482. **Secondary Instrumental Music Materials and Methods (3).** *Prerequisite: MU 471.* Professional preparation of teachers of instrumental music, grades 7-12, with emphasis on appropriate theory, literature, teaching methods and organizational skills needed to teach in an effective public school instrumental music program. *Course is offered in Fall semester only.*
483. **Secondary Vocal Music Materials and Methods (3).** *Prerequisite: MU 471.* Professional preparation of teachers of vocal music, grades 7-12, with emphasis on theory, literature, teaching methods and organizational skills needed to teach in an effective public school choral program. *Course is offered in Fall semester only.*
487. **Internship in Grades N-12 (9).** *Corequisite: MU 454.* Supervised classroom observation and student teaching in vocal and/or instrumental music in grades N-12. The education concentration candidate is required to take a minimum of 9 hours internship and should consult an academic advisor about scheduling.
489. **Capstone in Music Education (3).** Designed to encourage the student to reflect upon the process of training in music education and to deepen his/her understanding of aspects of the profession of teaching in music.
499. **Independent Study in Music (2).** *Permission of instructor required.* Provides the opportunity for an advanced student to pursue independent study and research on a specified topic in music under faculty direction. Course may be duplicated for credit for two (2) semesters for a total of four (4) semester hours.

#### MUSIC ENSEMBLES (MU) DESCRIPTION OF COURSES

Music majors must be enrolled in an ensemble approved by the major area every semester until minimum totals are reached; however, specific areas dictate or restrict which of these ensembles may be counted for credit toward the degree. Only one ensemble per semester will count toward the required minimum. Students should consult the music advisor for specific information regarding which ensembles count toward the minimum total. Students are urged to take no more than two ensembles per semester. No student may participate in any ensemble for which he or she is not duly and properly registered.

121, 321. **Mallet Ensemble (1).** Each number may be duplicated for credit for a total of four (4) semester hours.

132, 332. **Orchestra (1).** Each number may be duplicated for credit for a total of four (4) semester hours.

- 138, 338. **Gospel Choir (1)**. Each number may be duplicated for credit for a total of four (4) semester hours.
- 146, 346. **Chamber Music Ensemble (1)**. Each number may be duplicated for credit for a total of four (4) semester hours.
- 148, 348. **Wind Ensemble (1)**. Each number may be duplicated for credit for a total of four (4) semester hours.
- 162, 362. **Chamber Singers (1)**. Each number may be duplicated for credit for a total of four (4) semester hours.
- 168, 368. **Percussion Ensemble (1)**. Each number may be duplicated for credit for a total of four (4) semester hours.
- 182, 382. **Accompanying (1)**. Each number may be duplicated for credit for a total of four (4) semester hours.
- 188, 388. **Applied Ensemble (1)**. Each number may be duplicated for credit for a total of four (4) semester hours.
- 192, 392. **Marching Southerners (1)**. Each number may be duplicated for credit for a total of four (4) semester hours.
- 193, 393. **Chamber Winds (1)**. Each number may be duplicated for credit for a total of four (4) semester hours.
- 196, 396. **Chorus (1)**. Each number may be duplicated for credit for a total of four (4) semester hours.
- 198, 398. **Marching Ballerinas (1)**. Each number may be duplicated for credit for a total of four (4) semester hours.
- 207, 407. **Jazz Combo (1)**. Each number may be duplicated for credit for a total of four (4) semester hours.
- 218, 418. **A Cappella Choir (1)**. Each number may be duplicated for credit for a total of four (4) semester hours.
- 250, 450. **Symphonic Band (1)**. Each number may be duplicated for credit for a total of four (4) semester hours.
- 252, 452. **Lyric Theatre Workshop (1)**. Each number may be duplicated for credit for a total of eight (8) semester hours.
- 279, 479. **Jazz Ensemble (1)**. Each number may be duplicated for credit for a total of four (4) semester hours.
- 295, 495. **Show Choir (1)**. Each number may be duplicated for credit for a total of four (4) semester hours.

## PLAN OF STUDY

### BACHELOR OF ARTS MAJOR: MUSIC

#### CONCENTRATION: MUSIC EDUCATION – VOCAL

*The approved educational program cycle is assigned based on the actual assessment date into the Teacher Education program. For information on Teacher Education program eligibility, please consult the Education Program Requirements section of this Catalog or the Teacher Service Center, Rm 207, Ramona Wood Hall.*

*In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations.*

#### FRESHMAN YEAR

Fall	Spring
EH 101, English Composition .....3	EH 102, English Composition .....3
MS 110 or 112 .....3	Social/Behavioral Science .....3
MU 101, Music Theory .....3	MU 102, Music Theory ..... 3
MU 111, Aural Skills .....1	MU 112, Aural Skills .....1
MU 134, Primary Applied Music <sup>1</sup> .....2	MU 135, Primary Applied Music <sup>1</sup> .....2
MU 170 or 180, Class Piano Skills .....1	MU 171 or 181, Class Piano Skills .....1
Ensemble <sup>2</sup> .....1	Ensemble <sup>2</sup> .....1
Concerts and Recitals .....0	Concerts and Recitals .....0
MU 365, Diction I .....1	MU 299, Piano Proficiency .....0
STU 101 .....0	MU 366, Diction II .....1
15	15

#### MAY TERM

EH 141, Oral Communication ..... 3

**SOPHOMORE YEAR**

Fall	Spring
HY 101 or 201 .....3	HY 102 or 202 .....3
MU 201, Music Theory .....3	MU 202, Music Theory ..... 3
MU 211, Aural Skills .....1	MU 212, Aural Skills ..... 1
MU 234, Primary Applied Music <sup>1</sup> .....2	MU 235, Primary Applied Music <sup>1</sup> .....2
Concerts and Recitals ..... 0	Concerts and Recitals .....0
Ensemble <sup>2</sup> .....1	MU 150, Technology in Music .....1
MU 236, Intro to Music Honors .....3	Ensemble <sup>2</sup> .....1
ED 300, Intro to Teacher Ed .....2	MU 244, Intro to Music Education .....2
MU 370, Keyboard Harmony & Acc I.....1	MU 371, Keyboard Harmony & Acc II.....1
	MU 441, Choral Literature .....1
	MU 298, Mid-degree Assessment.....0
16	15

**MAY TERM**

Literature ..... 3

**JUNIOR YEAR**

Fall	Spring
Natural Science .....4	Natural Science .....4
Music Theory Option <sup>4</sup> .....2	MU 471, Elem. Music Mat./Meth. ....3
MU 210, Conducting .....2	MU 412, Music History .....3
MU 334, Primary Applied Music <sup>1</sup> .....2	MU 335, Primary Applied Music <sup>1</sup> .....2
Concerts and Recitals .....0	MU 300, Junior Recital .....0
Ensemble <sup>2</sup> .....1	Concerts and Recitals .....0
SPE 300, Survey of Except. Child .....3	MU 367, Diction III .....1
MU 350, Adv Tech in Music.....1	MU 385 General Inst Techniques .....1
	MU 363, Class Voice Pedagogy .....1
	Ensemble <sup>2</sup> .....1
15	16

**MAY TERM**

Literature ..... 3

**SENIOR YEAR**

Fall	Spring
Social/Behavioral Science.....3	MU 487, Internship ..... 9
MU 483, Secondary Mat. & Meth. .... 3	MU 489, Capstone.....3
MU 444, Choral Conducting ..... 3	
MU 411, Music History .....3	
MU 455, Practicum .....2	
MU 379, Vocal Pedagogy Lab .....1	
15	12

**TOTAL HOURS: 128**

**CONCENTRATION: MUSIC EDUCATION – INSTRUMENTAL**

*The approved educational program cycle is assigned based on the actual assessment date into the Teacher Education program. For information on Teacher Education program eligibility, please consult the Education Program Requirements section of this Catalog or the Teacher Service Center, Rm 207, Ramona Wood Hall.*

*In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations.*

**FRESHMAN YEAR**

Fall		Spring	
EH 101, English Composition .....	3	EH 102, English Composition .....	3
MS 110 or 112 .....	3	Social/Behavioral Science .....	3
MU 101, Music Theory .....	3	MU 102, Music Theory .....	3
MU 111, Aural Skills .....	1	MU 112, Aural Skills .....	1
MU 134, Primary Applied Music <sup>1</sup> .....	2	MU 135, Primary Applied Music <sup>1</sup> .....	2
MU 170 or 180, Class Piano Skills .....	1	MU 171 or 181, Class Piano Skills .....	1
Ensemble <sup>2</sup> .....	1	Ensemble <sup>2</sup> .....	1
Concerts and Recitals .....	0	Concerts and Recitals .....	0
Class Methods Applied <sup>1</sup> .....	1	Class Methods Applied <sup>1</sup> .....	1
STU 101 .....	0	MU 299, Piano Proficiency .....	0
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	15		15

**MAY TERM**

EH 141, Oral Communication .....	3
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**SOPHOMORE YEAR**

Fall		Spring	
HY 101 or 201 .....	3	HY 102 or 202 .....	3
MU 201, Music Theory .....	3	MU 202, Music Theory .....	3
MU 211, Aural Skills .....	1	MU 212, Aural Skills .....	1
MU 234, Primary Applied Music <sup>1</sup> .....	2	MU 235, Primary Applied Music <sup>1</sup> .....	2
Concerts and Recitals .....	0	Concerts and Recitals .....	0
Ensemble <sup>2</sup> .....	1	MU 150, Technology in Music .....	1
MU 236, Intro to Music Honors .....	3	Class Methods Applied <sup>5</sup> .....	1
Class Methods Applied <sup>5</sup> .....	1	Ensemble <sup>2</sup> .....	1
ED 300, Intro to Teacher Ed .....	2	MU 244, Intro to Music Education .....	2
	<hr/>	MU 298, Mid-degree Assessment.....	0
	16		<hr/>
			14

**MAY TERM**

Literature .....	3
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**JUNIOR YEAR**

Fall		Spring	
Natural Science .....	4	Natural Science .....	4
Music Theory Option <sup>4</sup> .....	2	MU 471, Elem. Music Mat./Meth. ....	3
MU 210, Conducting .....	2	MU 412, Music History .....	3
MU 334, Primary Applied Music <sup>1</sup> .....	2	MU 335, Primary Applied Music <sup>1</sup> .....	2
Concerts and Recitals .....	0	MU 300, Junior Recital .....	0
Ensemble <sup>2</sup> .....	1	Concerts and Recitals .....	0
SPE 300, Survey of Except. Child .....	3	Class Methods Applied <sup>5</sup> .....	1
MU 350, Adv Tech in Music.....	1	Ensemble <sup>2</sup> .....	1
MU 440, Band Literature.....	1	MU 384, Beginning Band Foundations.....	1
	<hr/>		<hr/>
	16		15

**MAY TERM**

Literature .....	3
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**SENIOR YEAR**

Fall		Spring	
Social/Behavioral Science.....	3	MU 487, Internship .....	9
MU 411, Music History .....	3	MU 489, Capstone.....	3
Class Methods Applied <sup>5</sup> .....	1		
MU 482, Secondary Mat & Methods .....	3		
MU 443, Band Conducting .....	3		
MU 455, Practicum .....	2		
MU 378, Instrumental Pedagogy Lab .....	1		
	<hr/>		<hr/>
	16		12

**TOTAL HOURS: 128**

**CONCENTRATION: GENERAL MUSIC**

*In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations.*

**FRESHMAN YEAR**

Fall		Spring	
EH 101, English Composition .....	3	EH 102, English Composition .....	3
MU 101, Music Theory .....	3	MU 102, Music Theory.....	3
MU 111, Aural Skills .....	1	MU 112, Aural Skills .....	1
MU 134, Primary Applied Music <sup>1</sup> .....	2	MU 135, Primary Applied Music <sup>1</sup> .....	2
Concerts and Recitals .....	0	Concerts and Recitals .....	0
Ensemble <sup>3</sup> .....	1	Ensemble <sup>3</sup> .....	1
STU 101.....	0	Math Elective.....	3
MS 110 or 112.....	3	MU 171 or 181, Class Piano Skills .....	1
MU 170 or 180, Class Piano Skills.....	1	MU 299, Piano Proficiency .....	0
	<hr/>		<hr/>
	14		14

**MAY TERM**

EH 141, Oral Communication ..... 3

**SOPHOMORE YEAR**

Fall		Spring	
Natural Science.....	4	Natural Science .....	4
Foreign Language .....	3	Foreign Language.....	3
MU 201, Music Theory .....	3	MU 202, Music Theory.....	3
MU 211, Aural Skills .....	1	MU 212, Aural Skills .....	1
MU 234, Primary Applied Music <sup>1</sup> .....	2	MU 235, Primary Applied Music <sup>1</sup> .....	2
Concerts and Recitals .....	0	Concerts and Recitals .....	0
Elective <sup>6</sup> .....	3	Ensemble <sup>3</sup> .....	1
Ensemble <sup>3</sup> .....	1	MU 298, Mid-degree Assessment.....	0
	<hr/>		<hr/>
	17		14

**MAY TERM**

Literature ..... 3

## JUNIOR YEAR

Fall	Spring
HY 101 or 201.....3	HY 102 or 202 .....3
MU 301, Music Theory ..... 2	MU 412, Music History ..... 3
MU 236, Intro to Music Honors .....3	MU 302, Music Theory .....2
Ensemble <sup>3</sup> ..... 1	MU 335, Primary Applied Music <sup>1</sup> .....2
MU 210, Conducting .....2	MU 300, Junior Recital .....0
MU 334, Primary Applied Music <sup>1</sup> .....2	Elective <sup>6</sup> ..... 6
Concerts and Recitals .....0	Ensemble <sup>3</sup> .....1
Elective <sup>6</sup> .....3	Concerts and Recitals .....0
16	17

## MAY TERM

Literature ..... 3

## SENIOR YEAR

Fall	Spring
Social/Behavioral Science..... 3	Social/Behavioral Science ..... 3
MU 411, Music History .....3	Elective <sup>6</sup> ..... 9
Elective <sup>6</sup> ..... 4	Ensemble <sup>3</sup> .....1
CS 201, Computer Science .....3	
Ensemble <sup>3</sup> .....1	
14	13

**TOTAL HOURS: 128**

<sup>1</sup>Individual applied music must be studied each semester for a total of six semesters. In the sixth and final semester of study, each student will present a public recital. To aid the student in preparing for this final project, the Department of Music offers a special seminar under the guidance of the applied music instructor. Normally, all six semesters should be taken in the same applied instrument (voice, piano, clarinet, etc.). In exceptional cases a change from one instrument to another may be permitted in the major area with the approval of the instructors involved and the department head, but in such cases the student will be expected to declare clearly what subject his/her major instrument is and to pass the junior seminar work in that instrument.

<sup>2</sup>Every Music Education student is encouraged to participate in as many ensembles as possible, each for one credit hour, since practical experience of this kind will prove invaluable to the student in future teaching careers. Each student is required to participate in a large ensemble representing his/her certification area (instrumental or vocal/choral). Students must participate in 6 required ensembles: 4 large and 2 small. Large Vocal Ensembles are: MU 418 & 396. Large Instrumental Ensembles are (choose from at least two of the following): MU 392, 348, 393, 450, 479 & 332 (strings only). Small Vocal Ensembles are: MU 495, 452 & 362. Small Instrumental Ensembles are: MU 407, 346, 321, 382 (pianists only), & 368. Pianists are encouraged to choose large ensembles from both vocal and instrumental categories. Deviations in the selection of required ensembles must receive the written approval of the department head.

<sup>3</sup>Every General Music student is encouraged to participate in as many ensembles as possible, each for one credit hour, since practical experience of this kind will prove invaluable to the student in advancing one's ability on the primary instrument and overall musical development. Students must participate in 8 semesters of ensembles: 5 large and 3 small. Large Vocal Ensembles are: MU 418 & 396. Large Instrumental Ensembles are (choose from at least two of the following): MU 392, 348, 393, 450, 479 & 332 (strings only). Small Vocal Ensembles are: MU 495, 452 & 362. Small Instrumental Ensembles are: MU 407, 346, 321, 382 (pianists only), & 368. Pianists are encouraged to choose large ensembles from both vocal and instrumental categories. Deviations in the selection of required ensembles must receive the written approval of the department head.

<sup>4</sup>Students may choose from MU 301, 302, 316, 317, 318 or PHS 350 to fulfill this requirement.

<sup>5</sup>For Instrumental Music Education: MU 360, 380, 381, 390, 391. Choose one additional course from: MU 260, 370, or 363.

<sup>6</sup>A non-music minor must be included in the 25 hours listed as electives.

Specific requirements, qualifications and procedures for assessment into the Teacher Education program leading to Alabama teacher licensure may be found under the Education Program Requirements section of the College of Education and Professional Studies in this Catalog.

## DEPARTMENT OF PHYSICAL AND EARTH SCIENCES

206 MARTIN HALL

**Department Head: TBA**

**Professors: Gregg, Gryko, Hill, Holstein,  
Nichols, Sewastynowicz, Steffy, Zettli**

**Associate Professors: Helms, Morgan, Mwebi, Weinkauff**

**Assistant Professors: Perygin, Tsikalas**

Within this department listing you will find information on the following programs: Anthropology (AN), Chemistry (CY), Environmental Science (ESC), Geography (GY), Geology (GL), Marine Science, and Physics (PHS).

General studies courses for Chemistry and Geography majors in the Physical and Earth Sciences Department are included in the Plan of Study for each major located after the Description of Courses for each major. All students, but

especially potential transfer students, should note the specific courses required for their selected Plan of Study. For additional information, consult our home page at <http://www.jsu.edu/pes/>.

### ANTHROPOLOGY (AN)

Anthropology is a broad-based field of study. Its subject matter ranges from the analysis of primitive and modern cultures throughout the world (cultural anthropology) to the examination of ancient peoples and civilizations (archaeology) to the study of human biological evolution derived from the fossil record of Africa, Europe, and Asia (physical anthropology). Students may study anthropology to develop expertise leading to careers in archaeology or applied cultural research or to supplement a liberal arts education.

**ANTHROPOLOGY MINOR.** A minor in Anthropology requires a minimum of 18 semester hours, which must include AN 224, 225, 345, 350, and 6 hours of anthropology electives.

### DESCRIPTION OF COURSES

- 224. Introduction to Anthropology (3).** Surveys the field of anthropology, including cultural anthropology, archaeology, and physical anthropology.
- 225. Introduction to Archaeology (3).** A study of the history, methodology, problems, and theory of archaeology, including an outline of prehistoric cultural development in both the New and Old Worlds.
- 299. Archaeology Field Techniques (3).** Introduction to techniques and theory of conducting archaeological excavation. Four days per week field experience.
- 344. Principles of Archaeology (3).** An examination of the ways in which the archaeologist recovers archaeological data. Methods, theory, actual field work, and field trips to archaeological sites will be included in this course.
- 345. Cultural Anthropology (3).** A global survey of the dynamics of cultural systems, including subsistence, kinship, marriage, sex and gender, politics, and religion. Covers both modern and primitive societies.
- 347. Current Social Issues (3).** An examination of how anthropology offers insight into national and international problems and events. Topics include environmental issues, poverty, crime, warfare, gender, and racism.
- 348. North American Indians (3).** Uses archaeological and ethnographic data to describe the diversity and ingenuity of traditional North American Indian societies and their contributions to contemporary American culture.
- 349. Middle American Indians (3).** Surveys the growth and development of Indian cultures in Mexico and Central America from prehistoric times to the present.
- 350. Physical Anthropology (3).** An examination of human origins covering evolutionary theory, the fossil record of human ancestry, primatology, genetics, and other pertinent topics.
- 361. Anthropology of Sexual Behavior (3).** A cross-cultural survey of sexual behavior, gender roles, and male-female relations among the world's societies, including biological and cultural influences on sexual phenomena.
- 399. Anthropology Study Tour (3).** *Prerequisite:* AN 224 or permission of instructor. Topics, excursions, and requirements determined by department. May be duplicated for credit; however, only 3 credits may be applied toward any major or minor. Infrequently scheduled and subject to minimum and maximum numbers. Advance deposit required.
- 410. Archaeological Field School (3).** This course is designed to provide the student field experience in methodology and techniques of archaeological data recovery. May be duplicated for credit for a total of 6 semester hours.
- 412. Lab Techniques in Archaeology (3).** Instruction and experience in the techniques of artifact preparation, analysis, cataloging, and storage.
- 490. Advanced Seminar in Anthropology (3).** *Prerequisite:* AN 224. An examination of current issues in anthropology. The content of this course will vary each semester. Students seeking admission must have advanced standing and secure approval of instructor. May be duplicated for credit for a total of 9 semester hours.
- 493. Independent Study (1).** An opportunity for students with advanced standing to engage in special research projects in anthropology. Approval of instructor and department head required. Pass/fail grade only. May be duplicated for credit for a total of 3 semester hours.

### CHEMISTRY (CY)

A Bachelor of Science in Chemistry prepares students for a diversity of careers. All program majors complete a general education and chemistry core curricula. Students seeking careers as chemists or admission to graduate programs in chemistry follow the Professional plan of study below. This plan adheres to certification guidelines of the American Chemical Society (ACS). Students pursuing the Professional plan complete the program's core curricula and then select one of the following concentrations to complete the major: Professional Chemistry, Biochemistry, or Environmental Chemistry.

Students seeking careers that require a basic understanding of chemistry follow the General Chemistry plan of study below. Such careers include medicine, dentistry, veterinary science, pharmacy, education, forensics, patent or environmental law, technical writing, art conservation, sales, marketing or management in a chemical-related industry. The plan below consists of the program's core curricula and 18 semester hours of 300/400 level courses, including a year of mathematics and a year of physics by advisement.

The Bachelor of Science in Chemistry requires a minimum of 128 semester hours, comprised of the following sub-requirements: 41 semester hours of state-articulated general studies courses; 23 hours of support courses; 23-24 semester hours in chemistry at the 300/400 level, including 12 semester hours minimum at the 300/400 level at Jacksonville State University; a minor, including 6 semester hours minimum at the 300/400 level at Jacksonville State University, or a second major. A minimum of thirty-six (36) semester hours of 300/400 level courses, which include those required in the major or minor, are required to complete the program. Any hours remaining to meet the 128 semester hour program or the 36 semester hours of 300/400 level requirements will be classified as electives. Students must earn a minimum "C" or better in each of their major or minor courses. Students entering Teacher Education must confer with the department head concerning the program of study.

**CHEMISTRY MAJOR CORE REQUIREMENTS (21 semester hours)**

CY 105, 107 - General Chemistry I .....	4
CY 106, 108 - General Chemistry II .....	4
CY 231 - Organic Chemistry I .....	4
CY 232 - Organic Chemistry II .....	4
CY 321 - Quantitative Analysis .....	5

**Professional Plan (ACS)** Select one from Professional Chemistry, Biochemistry, or Environmental Chemistry:

**A. Professional Chemistry**

CY 341 - Physical Chemistry I .....	4
CY 342 - Physical Chemistry II .....	4
CY 362 - Biochemistry or CY 411 - Inorganic Chemistry .....	4
CY 421 - Instrumental Analysis .....	5
CY 490 - Internship or CY 497 - Senior Research .....	1
In this concentration, the math requirement is MS 125 and MS 126; the Physics requirement is PHS 211 and PHS 212 with labs.	

Total this option	39
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**B. Biochemistry**

CY 341 - Physical Chemistry I .....	4
CY 342 - Physical Chemistry II .....	4
CY 362 - Biochemistry I .....	4
CY 363 - Biochemistry II .....	4
Cy 490 - Internship (1) <b>AND</b> CY 492 - Biochemical Research (1)	
or	
CY 492 - (1) (1) .....	2
In this concentration, the math requirement is MS 125 and MS 126; the Physics requirement is PHS 211 and PHS 212 with labs.	

Total this option	39
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**C. Environmental Chemistry** (Students are strongly encouraged to minor in ESC.)

CY 341 - Physical Chemistry I .....	4
CY 342 - Physical Chemistry II .....	4
CY 430 - Environmental Chemistry .....	3
CY 433 - Sampling and Analysis .....	4
CY 490 - Internship (1) <b>AND</b> CY 493 - Envirochem Research (1)	
or	
CY 493 - (1) (1) .....	2
In this concentration, the math requirement is MS 125 and MS 126; the Physics requirement is PHS 211 and PHS 212 with labs.	

Total this option	38
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**D. General Chemistry** (Pre-medical, Pre-dental, etc.)

CY 347- Concepts of Physical Chemistry .....	4
300/400 CY electives by advisement .....	15
In this concentration, the math requirement is MS 112 and MS 113; the Physics requirement is PHS 201 and PHS 202 with labs.	

Total this option	40
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**CHEMISTRY MINOR.** A minor in Chemistry consists of a minimum of 24 hours of Chemistry courses, including CY 105, 106, 107, 108, 231, 232 and an additional 8 hours of 300/400 level chemistry electives.

**CHEMISTRY (CY)**  
**DESCRIPTION OF COURSES**

101. **Fundamentals of Chemistry (3).** Lecture/3 hours. Designed to prepare students with weak backgrounds in chemistry and mathematics for CY 105. Fundamentals of chemical problem solving are stressed. Elective credit only; cannot be used to satisfy science requirements or a major or minor in Chemistry.
105. **General Chemistry I (3).** Lecture/3 hours. *Prerequisite: Appropriate ACT/SAT score for MS 112. Concurrent enrollment in CY 107 is required.* Part I of a two-semester sequence. General chemistry for science majors, including basic principles and laws of chemistry. Topics include measurements, dimensional analysis, reaction and stoichiometry, periodicity, atomic structure, bonding and molecular structure, and an introduction to organic chemistry.
106. **General Chemistry II (3).** Lecture/3 hours. *Prerequisite: CY 105. Concurrent enrollment in CY 108 is required.* Part II of a two-semester sequence. Continuation of CY 105. Topics include states of matter, solutions, kinetics, equilibrium, acid-base theory, thermodynamics, and electrochemistry.
107. **General Chemistry Laboratory I (1).** Lab/3 hours. *Concurrent enrollment in CY 105 is required.* Basic principles of matter will be explored. Topics of experimentation include obtaining accurate measurements, identifying unknown substances from their physical and chemical properties, purifying matter, exploring gas laws, and performing an acid-base titration.
108. **General Chemistry Laboratory II (1).** Lab/3 hours. *Concurrent enrollment in CY 106 is required.* Topics of experimentation include qualitative analysis, exploring reaction rates, ionic equilibria, and synthesis.
109. **Elementary Organic Chemistry (4).** Lecture/3 hours. Lab/3 hours. *Not open to students for credit toward a major or minor in Chemistry. Prerequisites: CY 105 and 107.* Principles of organic chemistry with emphasis on compounds of biological importance.
115. **Concepts of General Chemistry I (4).** Lecture/3 hours. Lab/3 hours. *Prerequisite: Appropriate ACT/SAT score for MS 112.* Part I of a two-semester sequence. General chemistry for students who are not planning to take any higher level courses in chemistry. This course in the basic principles and laws of chemistry is designed to cover a broad range of topics. Topics include measurements, the periodic table, ionic and covalent compounds, chemical reactions, energy changes, gases, liquids and solids, acids and bases and nuclear chemistry.
116. **Concepts of General Chemistry II (4).** Lecture/3 hours. Lab/3 hours. *Prerequisite: CY 115.* Part II of a two-semester sequence. General chemistry for students who are not planning to take any higher level courses in chemistry. This course is the second semester in the basic principles and laws of chemistry. Topics include organic molecules, functional groups, molecular configurations, aldehydes and ketones, carboxylic acids and derivatives, neurotransmitters, and metabolism.
164. **Physiological Chemistry (4).** Lecture/3 hours. Lab/3 hours. *Prerequisite: CY 105.* Not open to students for credit toward a major or minor in Chemistry. A brief review of organic chemistry followed by a study of the chemistry and metabolism of proteins, carbohydrates, and lipids.
231. **Organic Chemistry I (4).** Lecture/3 hours. Lab/3 hours. *Prerequisite: CY 106.* Part I of a two-semester sequence. Structure and properties of aliphatic hydrocarbons and their halo derivatives, emphasizing nomenclature, isomerism, synthesis, reactions, mechanisms and applications.
232. **Organic Chemistry II (4).** Lecture/3 hours. Lab/3 hours. *Prerequisite: CY 231.* Part II of a two-semester sequence. Structure and properties of aromatic compounds, halides, carbonyl compounds, alcohols, ethers and amines, their nomenclature, synthesis, reactions, mechanisms, spectroscopy and applications.
321. **Quantitative Analysis (5).** Lecture/3 hours. Lab/6 hours. *Prerequisites: CY 106 and 108.* Theory and practice of gravimetric, volumetric, potentiometric, and colorimetric methods of analysis.
341. **Physical Chemistry I (4).** Lecture/3 hours. Lab/3 hours. *Prerequisites: CY 106, MS 125, PHS 211 and 212 are required.* Chemical thermodynamics with emphasis on understanding physical properties of pure substances and mixtures. The course covers fundamentals of classical thermodynamics with applications to phase transitions, colligative properties, and chemical equilibria.
342. **Physical Chemistry II (4).** Lecture/3 hours. Lab/3 hours. *Prerequisites: CY 106, CY 341, MS 126, PHS 211 and 212 are required.* Fundamentals of quantum chemistry and spectroscopy. The course concentrates on fundamentals of quantum mechanics with applications to chemistry. The course also covers theoretical basis of spectroscopy, focusing on infrared, Raman, visible, and nuclear magnetic resonance techniques.
347. **Concepts of Physical Chemistry (4).** Lecture/3 hours. Lab/3 hours. *Prerequisites: MS 113, PHS 202, CY 106.* This algebra-based course covers fundamentals of chemical thermodynamics and molecular structure with emphasis on life-science applications.
362. **Biochemistry I (4).** Lecture/3 hours. Lab/3 hours. *Prerequisite: CY 231.* Biochemical evolution, protein structure and function, flow of genetic information, enzymes, and enzyme kinetics.
363. **Biochemistry II (4).** Lecture/3 hours. Lab/3 hours. *Prerequisite: CY 232 and CY 362.* Metabolism, signal transduction, glycolysis and gluconeogenesis, citric acid cycle, oxidative phosphorylation, photosynthesis, glycogen and fatty acid metabolism.

- 411. Intermediate Inorganic Chemistry (5).** Lecture/3 hours. Lab/6 hours. *Prerequisites:* CY 106, 232, PHS 202. Fundamental topics in inorganic chemistry, including atomic structure, chemical bonding, periodic relationships, acid-base theories, non-aqueous solvents, and reaction mechanisms.
- 421. Instrumental Analysis (5).** Lecture/3 hours. Lab/6 hours. *Prerequisites:* CY 106, 321, PHS 202 or PHS 212. The operating principles and techniques involving the use of analytical instruments.
- 430. Environmental Chemistry (4).** Lecture/3 hours. Lab/3 hours. *Prerequisites:* CY 232 and 321. Introduction to water, air, and soil quality and their measurements. Introduction to the problems, regulations, treatment, and ultimate disposal of hazardous and toxic waste materials. Spill clean-up, groundwater transport, land disposal, incineration, and treatment technologies are discussed.
- 433. Environmental Sampling and Analysis (4).** Three hours lecture, three hours field and laboratory work per week. *Prerequisites:* CY 231, 232, 321, and ESC 300. This course will emphasize proper environmental sampling techniques (including QA/QC) and the EPA mandated analysis of various parameters, including soil, water, and air. Students will be expected to provide their own waders, hard hats, and rain suits.
- 435. Advanced Topics in Chemistry (3).** *Prerequisite:* CY 232. Advanced study of various topics in chemistry and chemistry related fields. This course is intended to be offered once per year, and topic selections will vary from year to year. See instructor. May be duplicated for credit for a total of 12 semester hours.
- 471. Toxicological Chemistry (3).** Lecture/3 hours. *Prerequisite:* CY 232. A study of the principles of toxicology, including identification of, characterization of, and risk from environmental exposures to toxic substances.
- 484. Laboratory Practicum (1).** One laboratory period per week. *Prerequisites:* Consent of instructor and completion of CY 321 or 341 or 347 or 362. Students will be involved in chemical pedagogy. This may involve chemical demonstrations, tutoring, grading or development of laboratory experiments. May be duplicated for credit for a total of 3 semester hours. Pass/Fail grade only.
- 490. Internship (1).** *Prerequisite:* Consent of instructor and availability of placement. Student will gain on-the-job experience with a firm or government agency. Student is expected to devote a minimum of 20 hours/week to this course. Pass/Fail grade only.
- 492. Biochemical Research (1).** *Prerequisites:* CY 231, 232, 362, 363. An introduction to biochemical research. Students will be involved in an ongoing research project, learning laboratory techniques pertinent to biochemical research, how to conduct literature searches, and how to critically evaluate their own and others' data. A minimum of 10 hours involvement per week will be expected. May be duplicated for credit for a total of 3 semester hours. Pass/Fail grade only.
- 493. Environmental Chemistry Research (1).** *Prerequisites:* CY 430 and 433. The student will complete an environmental research project which will involve monitoring, sampling, and chemical analysis. A detailed paper will be required outlining the student's findings and conclusions. A minimum of 10 hours involvement per week will be expected. May be duplicated for credit for a total of 3 semester hours. Pass/Fail grade only.
- 497. Senior Research (1).** *Prerequisite:* Permission of instructor. The student is assigned a simple piece of fundamental research. May be duplicated for credit for a total of 3 semester hours. Pass/Fail grade only.

## PLAN OF STUDY

### BACHELOR OF SCIENCE MAJOR: CHEMISTRY WITH PROFESSIONAL CONCENTRATION AND PHYSICS MINOR

*In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations.*

#### FRESHMAN YEAR

Fall	Spring
EH 101 .....3	EH 102 .....3
HY Sequence <sup>1</sup> .....3	EH 141 .....3
Fine Arts <sup>2</sup> .....3	HY Sequence <sup>1</sup> .....3
MS 125, Calc I ..... 4	MS 126, Calc II .....4
CY 105, Gen Chem .....3	CY 106, Gen Chem .....3
CY 107, Chem Lab .....1	CY 108, Chem Lab .....1
STU 101.....0	

**SOPHOMORE YEAR**

Fall	Spring
Literature <sup>3</sup> .....3	Literature <sup>3</sup> .....3
CY 231, Organic Chemistry .....4	Social/Behavioral Sci. <sup>4</sup> .....3
PHS 211 .....4	CY 232, Organic Chemistry. ....4
PHS 213 . .....1	PHS 212 .....4
CS 201 or higher .....3	PHS 214 .....1
15	15

**JUNIOR YEAR**

Fall	Spring
CY 341 .....4	CY 342 ..... 4
Social/Behavioral Sci. <sup>4</sup> .....3	Elective .....3
CY 321, Quant. Analysis .....5	PHS 300+ .....3
PHS 301 .....3	General elective 300+ .....3
General elective 100+ .....3	General elective 100+ .....3
18	16

**SENIOR YEAR**

Fall	Spring
CY 362 . .....4	General electives 300+ .....6
PHS 300+ .....3	PHS 300+ .....3
General electives 300+ .....8	CY 421 .....5
15	CY 490..... 1
	15

**TOTAL HOURS: 128**

**PLAN OF STUDY**

**BACHELOR OF SCIENCE  
MAJOR: CHEMISTRY WITH GENERAL CONCENTRATION  
FOR PRE-HEALTH PROFESSIONAL AND BIOLOGY MINOR**

*In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations.*

**FRESHMAN YEAR**

Fall	Spring
EH 101 .....3	EH 102 .....3
BY 101 .....3	BY 102 .....3
BY 103 .....1	BY 104 .....1
MS 112 ..... 3	MS 113 .....3
CY 105, General Chemistry .....3	CY 106, General Chemistry .....3
CY 107, Chemistry Lab .....1	CY 108, Chemistry Lab .....1
STU 101.....0	EH 141 .....3
14	17

**SOPHOMORE YEAR**

Fall	Spring
CY 231, Organic Chemistry .....4	CY 232, Organic Chemistry .....4
BY 373 .....4	BY 322 .....4
PHS 201 ..... 3	PHS 202 .....3
PHS 203 .....1	PHS 204 .....1
HY sequence <sup>1</sup> .....3	HY sequence <sup>1</sup> .....3
15	Elective .....2
	17

## JUNIOR YEAR

Fall	Spring
BY 332 .....4	BY elective 300+ .....4
EH Literature <sup>1</sup> .....3	EH Literature <sup>1</sup> .....3
CY 321, Quant. Analysis .....5	Fine Arts <sup>2</sup> .....3
CY 362 & Lab .....4	CS 201 or higher .....3
16	17

## SENIOR YEAR

Fall	Spring
Social/Behavioral Science <sup>4</sup> .....3	General electives 300+ .....6
General elective 100+ .....3	CY 300+ .....3
CY 300+ elective .....4	CY 347..... 4
General electives 300+ .....6	Social/Behavioral Science <sup>4</sup> .....3
16	16

**TOTAL HOURS: 128**

<sup>1</sup>Choose either HY 101, 102 or HY 201, 202.

<sup>2</sup>Choose from ART 202, DR 242, MU 233, or FL 101.

<sup>3</sup>Choose from EH 201, 202, 203, 204, 219, 220, 231, 232.

<sup>4</sup>Choose from AN 224, EC 221, 222, GY 120, 220, PSC 100, PSY 201, 222, SY 221.

## ENVIRONMENTAL SCIENCE (ESC)

The minor in Environmental Science (ESC) will be of value to majors seeking jobs involving environmental planning, safety, compliance, or oversight functions. Prior to enrolling in any of the ESC courses, a student must have completed a two-semester sequence of coursework in two of the following disciplines: BY, CY, GL, GY, or PHS.

The ESC minor consists of the following core of required courses: 15 hours

ESC 300 - Intro to Environmental Science ..... 3	3
ESC 310 - Environmental Laws and Regulations ..... 3	3
ESC 321 - Environmental Systems ..... 3	3
ESC 460 - Quality Assurance/Quality Control .....3	3
ESC 490 - Environmental Auditing .....3	3

Students complete the minor by completing three of the following electives: 9-10 hours

BY 303 – Biological Conservation .....3	3
CY 471 – Toxicological Chemistry..... 3	3
ESC 330 - Principles of Hazardous Materials Mgt .....3	3
BY 332 – Ecology .....4	4
ESC 495 – Risk Analysis .....3	3
PHS 327 - Elementary Radiation Physics .....3	3

**Total Hours .....24/25**

## DESCRIPTION OF COURSES

300. **Introduction to Environmental Science (3).** An overview of environmental science principles, environmental and health effects of pollutants, and a discussion of possible solutions that can be implemented to minimize or eliminate damage to Earth.
310. **Environmental Laws and Regulations (3).** *Prerequisite: ESC 300.* In-depth study of selected environmental regulations relating to hazardous substances and wastes, clean air and clean water, and origins in statutory law.
321. **Environmental Systems (3).** *Prerequisite: ESC 300.* An introduction to the engineering systems and equipment used to protect our air, water, and soils. This non-mathematical course is designed to prepare individuals from various disciplines to understand the selection, basic design, application, and effectiveness of environmental engineering systems.
330. **Principles of Hazardous Materials Management (3).** *Prerequisites: CY 105 and 106.* An introduction to the identification and management of hazardous materials encountered in the workplace, school, or home. This course

will focus on management approaches, including education and training, engineering systems, task performance practices, administrative procedures, emergency response plan preparation, and first responder actions that can be used to minimize exposures and consequent health and environmental effects.

- 402. **Practicum in Environmental Science (3).** *Prerequisite: Approval of instructor.* This course provides opportunity to gain on-the-job experience with a firm or government agency. May be duplicated for credit for a total of six semester hours. Grades: Pass/Fail.
- 403. **Independent Study (1).** *Prerequisite: Approval of instructor required.* This course gives the advanced student opportunity to pursue directed research. May be duplicated for credit for a total of three semester hours. Grades: Pass/Fail.
- 460. **Quality Assurance/Quality Control (3).** *Prerequisite: Permission of instructor.* This course is designed to equip the student with a firm understanding of QA/QC techniques in the environmental field. This will be accomplished through the use of simple statistical methods and a study of the EPA requirements for sampling and analysis of environmental parameters.
- 480. **Environmental Impact Statements (3).** *Prerequisites: ESC 300, 310, 321, 330, and 400.* The National Environmental Policy requires that potential environmental impacts of proposed projects be evaluated and presented in the form of an Environmental Impact Statement (EIS). This course reviews the EIS format and the collaborative procedures used to produce an EIS.
- 490. **Environmental Auditing (3).** Overview of systematic auditing techniques with a focus on regulatory compliance, liability, environmental awareness and ethics. This course will also cover process mapping as a tool of auditing, the new international standards (ISO 14000) and their implications on future industrial activities.
- 493. **Special Topics in Environmental Science (3).** Advanced study of various topics in environmental science and related fields. May be duplicated for credit for a total of 12 semester hours.
- 495. **Risk Analysis (3).** An in-depth study of methodologies for human and environmental risk analysis, with a focus on hazardous chemical releases. Case studies will illustrate current field techniques.
- 496. **Watershed Management (3).** *Prerequisites: GY 307 and ESC 300.* This course will cover fundamental principles of the hydrologic processes occurring in watersheds. The material will cover the hydrologic impacts of management activities on watersheds, such as urbanization, farming, forestry, and recreational use. Cases studies of watershed management techniques will be used to illustrate problems confronting our nation’s waters. Applications of GIS-based techniques will be covered as a tool available for managers.

### GEOGRAPHY (GY)

Geography serves as a bridge between the physical and social sciences. Emphasis is on the nature and distribution of environmental systems, human activities, relations between them, and their variation from place to place. Geography’s uniqueness is not derived from the subject matter studied, but from the discipline’s technical and methodological approach to the locational analysis of phenomena.

The Bachelor of Science in Geography degree offered by the Department of Physical and Earth Sciences requires an overall minimum of 120 semester hours comprised of the following sub-requirements: 32 hours of Geography, including 18 hours of 300/400 level courses at JSU (this must include GY 307); a minor, including 6 hours of 300/400 level courses at JSU; 41 hours of state articulated general studies courses; 23 hours of support courses; and 36 hours of 300/400 level courses, which include those required in the major and minor. Any hours remaining to meet the 120 hour minimum or the 36 hour minimum of 300/400 level will be classified as electives. Students must earn a minimum “C” or better in each of the major and minor courses.

**Geography Major.** Students should work closely with an advisor in selecting electives appropriate to their goals.

GY 208 - Map Reading .....	3
GY 220 - Human Geography .....	3
GY 250 and 251 - Physical Geography and labs (252, 253) <b>OR</b>	
GL 241 and 242 - Physical & Historical Geology	
and labs (243, 244) .....	8
GY 307 - Geographic Information Systems .....	3
GY 300/400 level electives .....	15
Total hours .....	32

**Geography Minor.** A minor in Geography requires a minimum of twenty-three (23) semester hours and must include the following courses:

GY 120 or 220 .....	3
GY 250/252 and 251/253 or GL 241/243 and 242/244 .....	8
GY 208 .....	3
GY Electives - 300/400 level .....	9

## DESCRIPTION OF COURSES

120. **World Regional Geography (3).** This course examines major world regions, each the unique result of interaction between an environmental setting and human social and economic activity.
208. **Map Reading (3).** An introduction to basic map reading and analysis involving symbol identification, coordinate location, and direction and distance measurement. Emphasis is upon using the topographic map.
210. **Earth and Space Science (3).** The study of earth systems, including weather, climate, the lithosphere, soils and biomes.
220. **Human Geography (3).** The study of social and cultural patterns, emphasizing the arrangement and diversity of economic, social, political, religious, and demographic culture traits.
250. **Physical Geography I: Atmospheric Patterns and Processes (3).** *GY 252 is required but not concurrently.* Study of the function and distribution of the interrelated processes that shape Earth's weather and the classification and distribution of Earth's climates.
251. **Physical Geography II: Landscape Patterns and Processes (3).** *GY 253 is required but not concurrently.* Study of Earth's soils, biomes and physiographic regions with emphasis on the processes that formed them and their global patterns.
252. **Physical Geography Laboratory I (1).** *GY 250 is required but not concurrently.* One two-hour lab per week. Experiments focus on weather, energy and moisture budgets, and climatic classification.
253. **Physical Geography Laboratory II (1).** *GY 251 is required but not concurrently.* One two-hour lab per week. Exercises focus on study of the physical properties of soils, the analysis of biomes, the use of topographic maps to identify land surface features and the identification of physiographic regions.
302. **Principles of Remote Sensing (3).** *Prerequisite: GY 208.* An introduction to the electromagnetic spectrum, aerial photography and aerial photo interpretation and mapping.
307. **Geographic Information Systems (3).** *Prerequisite: GY 208.* Introduction to the cartographic acquisition, processing, management, manipulation, analysis, and generation of spatial digital data in a Geographic Information System.
308. **Cartography: Map Design (3).** *Prerequisite: GY 208 or permission of instructor.* Two hours of lecture, two hours of lab. Introduction to computer-assisted map making, emphasizing principles of map design.
312. **Public Service Mapping (3).** Examines the tools and methods provided by geographic information science for planning and maintaining public service. Consideration includes crime analysis and mapping, emergency and disaster response, environmental management, geographic distribution of health problems and facilities, parcel and infrastructure maintenance and mapping, analysis of networks, and predictive modeling.
315. **Research Methods I (3).** *Prerequisites: EH 101 and 102, GY 250 and 252 or 251 and 253 or GL 241 and 243, and GY 220.* Design and preparation of a geographic research proposal, with emphasis on problem identification, methodology design and literature review. Fall semester only.
316. **Research Methods II (3).** *Prerequisite: GY 315.* Design and preparation of the graphics and statistical analysis portions of a geographic research proposal. Spring semester only.
320. **Political Geography (3).** A study of the spatial aspects of political phenomena from the international to the local scale. Suggested background: GY 220.
331. **Climatology (3).** A study of climates, how they are classified, and their effect upon human activity.
333. **Meteorology (3).** *Recommended: GY 250.* The study of weather types and their causes, weather instrumentation, the construction and interpretation of weather maps, analog and synoptic forecasting, and weather modification.
341. **Economic Geography (3).** A survey of the factors which influence the location of economic activities with emphasis on the application of various elementary techniques designed to determine the relative economic potential of any place.
351. **Advanced Regional Study (3).** Examination of the interrelations among various physical and cultural elements that make regions of the world distinctive. Regional focus varies. See instructor. May be duplicated for credit for a total of 12 semester hours.
361. **Geography of the Arab World (3).** This course employs a macro geographical (regional and systematic) approach that introduces the students to the process of social and political change in the Arab World. The focus will be on the political, social, environmental and economic positions and interaction of the major players within the region. We look at the complexity of the region and its historical-cultural specifics. From a geopolitical perspective we survey recent socioeconomic and political exchanges and look at events that have begun to transform the contemporary Arab World, most notably the "Arab Spring" and the uprisings of Summer and Fall of 2012, and how these events are precursors to continued change.
398. **National Parks Interpretation (3).** Students will receive intensive training preparing them to work as student interns at Little River Canyon National Preserve. Several days of travel to Little River Canyon will be required.
399. **Geography Study Tour (3).** *Permission of instructor required.* Topics, excursions, and requirements determined by department. May be duplicated for credit; however, only 3 credits may be applied toward any major or minor. Infrequently scheduled and subject to minimum and maximum numbers. Advance deposit required.

401. **Practicum in Geography (3).** *Permission of instructor required.* This course provides opportunity to gain on-the-job experience with a firm or government agency. May be duplicated for credit for a total of 6 semester hours. Pass/Fail grade only.
403. **Independent Study (1).** *Permission of instructor required.* This course gives the advanced student opportunity to pursue directed research. May be duplicated for credit for a total of 3 semester hours. Pass/Fail grade only.
406. **Digital Image Analysis (3).** *Prerequisite: GY 302.* Advanced instruction in multi-spectral, thermal and microwave sensing of the geographic environment. Emphasis on analysis of digital imagery.
422. **Geographic Views of History (3).** Use of the geographic perspective to examine facets of World, United States, and Alabama history.
431. **Topics in Physical Geography (3).** Advanced geographic study of various facets of the natural environment. Topic selection varies. See instructor. May be duplicated for credit for a total of 12 semester hours.
444. **Topics in Environmental Conservation (3).** In-depth examination of various conservation issues. Topic selection varies; see instructor. May be duplicated for credit for a total of nine semester hours.
451. **Advanced GIS (3).** *Prerequisites: GY 307 and permission of instructor required.* Advanced training in selected geographic techniques. Topic selection varies. See instructor. May be duplicated for credit for a total of 15 semester hours.
453. **Analyzing Spatial Networks (3).** *Prerequisite: GY 307.* Introduction to topology theory and its employment in GIS network analysis. Emphasis on methods of determining efficient paths, modeling network flows, and creating efficient service areas for organization entities.
454. **Site Location Analysis (3).** *Prerequisite: GY 307.* Emphasis on evaluating existing site location efficiencies, determining of appropriate point site and area site locations for organizational entities, and analyzing environmental impact analyses using GIS.
455. **Organization and Management of Spatial Systems (3).** *Prerequisite: GY 307.* Fundamentals of GIS implementation and GIS management. Consideration in designing organization-wide GIS and the management of both special projects and organization-wide use of GIS.
456. **Spatial Data Layout and Display (3).** *Prerequisite: GY 307.* Fundamentals of map composition and layout, chart creation, data classification, and map design to produce meaningful maps and charts of the results of spatial analysis.
459. **Spatial Data Collection and Management (3).** *Prerequisite: GY 307.* Methods of capturing data, acquiring and importing existing spatial data into geographic information systems, deriving spatial information from remotely sensed data, and storing spatial data.
466. **Topics in Cultural Geography (3).** Advanced geographic study of various facets of human culture. Topic selection varies. May be duplicated for credit for a total of 12 semester hours.
475. **Natural Hazards (3).** *Prerequisites: GY 250 and GY 251 or GL 241.* An introduction to natural hazards, their causes, distribution and impacts. Focus on human perception, vulnerability and risk analysis.
480. **Geography Laboratory Practicum (1).** *Prerequisite: Permission of instructor.* Four hours of laboratory per week. Students learn to utilize pieces of equipment and demonstration techniques while assisting an instructor to prepare and conduct lab sessions. May be duplicated for credit for a total of 2 semester hours. Pass/Fail grade only.
490. **Colloquium (1).** *Prerequisite: A completed piece of research must be submitted prior to enrollment in this course.* Results of a basic research project in geography are presented in a conference setting using PowerPoint or equivalent software. Permission of instructor required. Pass/Fail grade only.

**PLAN OF STUDY**  
**BACHELOR OF SCIENCE**  
**MAJOR: GEOGRAPHY**

*In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations.*

**FRESHMAN YEAR**

Fall	Spring
EH 101 .....3	EH 102 .....3
HY Sequence <sup>1</sup> .....3	EH 141 .....3
MS 110/112 .....3	HY Sequence <sup>1</sup> .....3
GY 250, Physical GY I .....3	MS 204, Basic Stat .....3
GY 252, Geography Lab I .....1	GY 251, Physical GY II. ....3
AN 224, Intro to Anth .....3	GY 253, Geography Lab II .....1
STU 101.....0	
16	16

**SOPHOMORE YEAR**

Fall	Spring
Literature <sup>3</sup> .....3	Literature <sup>3</sup> .....3
Fine Arts elective <sup>2</sup> .....3	GY 220, Human GY .....3
GY 120, World Regional GY .....3	CS 201 .....3
GY 208, Map Reading .....3	Minor .....6
Science elective w/lab <sup>4</sup> .....4	
16	15

**JUNIOR YEAR**

Fall	Spring
GY 307, GIS .....3	GY electives 300/400 .....6
Minor .....6	Minor/Gen electives 300/400 .....9
General elective/300+ Elective .....4	
13	15

**SENIOR YEAR**

Fall	Spring
GY electives 300/400+ .....6	General electives 300+ .....13
General electives/300+ Elective .....7	GY elect 300/400+ .....3
13	16

**TOTAL HOURS: 120**

<sup>1</sup>Choose either HY 101, 102 or HY 201, 202.

<sup>2</sup>Choose from ART 202, DR 242, MU 233, or FL 101.

<sup>3</sup>Choose from EH 201, 202, 203, 204, 219, 220, 231, 232.

<sup>4</sup>Choose from BY 101 and 103, CY 105 and 107, GL 242 and 244, PHS 201 and 203.

**GEOLOGY (GL)**

A two-semester sequence of geology is offered which can be used to meet the University general studies natural science requirement. Students interested in earth science are encouraged to consider a major/minor in Geography.

**DESCRIPTION OF COURSES**

- 241. Physical Geology (3).** *GL 243 is required but not concurrently.* Modern concepts of the Earth's physical composition, crustal structures, and the internal/external forces acting on them.
- 242. Historical Geology (3).** *GL 244 is required but not concurrently.* Study of the Earth's evolution, including changes in its crust, surface features, atmosphere, and life forms.

243. **Physical Geology Lab (1).** *GL 241 is required but not concurrently.* One two-hour lab per week. Emphasis on rock/mineral identification and the study of landforms through topographic and geologic map interpretation.
244. **Historical Geology Lab (1).** *GL 242 is required but not concurrently.* One two-hour lab per week. Study of Earth history using geologic maps and the fossil record of plant and animal development.
483. **Geology Lab Practicum (1).** *Prerequisite: Permission of instructor.* Students learn how to use various pieces of equipment and lab demonstration techniques while assisting an instructor to prepare and conduct lab sessions. May be duplicated for credit for a total of 2 semester hours. Pass/Fail grade only.

#### MARINE SCIENCE (GL)

Courses taken in Marine Science are offered only at the Sea Lab of the Marine Environmental Sciences Consortium on Dauphin Island. Courses taken at the Sea Lab may be used for elective credit toward graduation, but will not count toward any major or minor offered by the department. For course description of other courses taught at the Sea Lab, see listing in the Biology Department. Students requiring further information about Sea Lab programs should consult with the program advisor in the Biology Department.

#### DESCRIPTION OF COURSES

329. **Coastal Climatology (2).** Introduction to physical factors resulting in climatic conditions of coastal regions, emphasis on the northern Gulf of Mexico.
390. **Marine Geology (4).** *Prerequisite: GL 241 or permission of instructor.* A study of the geology of the ocean basins, with special emphasis on the continental shelves, their sediments, and the sedimentary processes at work there.

#### PHYSICS (PHS)

Jacksonville State University offers a minor in Physics. Students in the sciences, mathematics and computer science will find this program a valuable complement to their majors.

**PHYSICS MINOR.** Requirements for a minor in Physics include PHS 211, 213, 212, 214, 301 and nine hours in Physics 300+. These courses will be selected in conference with a Physics program advisor.

#### DESCRIPTION OF COURSES

##### COURSES WITH NO PHYSICS OR MATH PREREQUISITES

327. **Elementary Radiation Physics (3).** This course is intended for any student interested in radiation safety and specifically for students in Physics, Chemistry, Pre-medicine, Pre-dentistry, Nursing, Biology, and Archaeology. The course objective is to provide individuals with the knowledge and procedures necessary to minimize exposures to ionizing and non-ionizing radiation and to understand the physiological and environmental effects of radiation. Instruction will include lectures, discussions, demonstration, and laboratory exercises.
350. **Physics in Music (3).** This course will explore the physics involved in music. A variety of questions with sound and music will be explored. What physical properties can be used to describe sound? How do musical instruments produce sound? What are the physical reasons that instruments playing the same note sound different? How does sound travel through space? Why does your voice sound so different on a recording? Students will be encouraged to generate and explore their own questions. Some class periods will be devoted to a hands-on look at ideas. This course is designed to be descriptive in nature rather than highly mathematical. No math or physics prerequisites.
371. **Astronomy (4).** 3 hours lecture/3 hours lab per week. A survey of the structure and evolution of the universe, from planets to stars and galaxies. Questions about the nature of science, limits to current knowledge, and the influence of space science will be addressed. The course culminates in individual in-depth explorations of particular aspects of astronomy.

##### INTRODUCTORY PHYSICS COURSES AND THEIR MATH PREREQUISITES

201. **College Physics I (3).** *Prerequisite: MS 113 or MS 117. Concurrent enrollment in PHS 203 is required.* This course is the first half of a two-semester sequence that introduces basic concepts in physics. Beginning with mechanics and motion, we develop methods for mathematically describing the way objects move and predicting their future movement. The course proceeds to study wave motion with springs, strings, water, sound, and light. Does not count toward the Physics minor. Credit will not be granted for both 201 and 211.
202. **College Physics II (3).** *Prerequisite: PHS 201 and either MS 113 or MS 119. Concurrent enrollment in PHS 204 is required.* The second half of this sequence of courses begins by studying electricity and basic circuits, followed by magnetism. A section on light, including lenses and mirrors, follows. The behavior of light waves, such as rainbows and soap bubbles, will also be explored. Finally, topics from quantum mechanics and special relativity are introduced to give students a flavor of the revolutionary nature of these topics in their original scientific setting. Does not count toward the Physics minor. Credit will not be granted for both 202 and 212.
203. **College Physics Lab I (1).** *Concurrent enrollment in PHS 201 is required.* Two laboratory hours each week. Concepts of physics developed in the associated courses will be studied through the use of hands-on activities. Students will work in groups to explore topics in motion, mechanics, waves, and sound. Does not count toward the Physics minor.

- 204. College Physics Lab II (1).** *Concurrent enrollment in PHS 202 is required.* Two laboratory hours each week. Concepts of physics developed in the associated courses will be studied through the use of hands-on activities. Students will work in groups to explore topics in electricity, magnetism, optics, and modern physics. Does not count toward the Physics minor.
- 211. Physics for Scientists and Engineers I (4).** *Prerequisite: MS 125. Concurrent enrollment in PHS 213 is required.* This course is the first of two semesters designed to introduce the basic concepts of physics. The first semester will concentrate on the area of physics called Newtonian mechanics that is used to work with macroscopic (ordinary-sized) objects. Beginning with mechanics and motion, we develop methods for mathematically describing the way objects move and predicting their future movement. The course proceeds to study wave motion with springs, strings, water, sound, and light. We will take advantage of the power of calculus to depict movement by weaving its structure into our physical laws and theories. Since the development of both calculus and Newtonian mechanics by Sir Isaac Newton, calculus and physics have been intertwined, and students in this course will see these close connections. Credit will not be granted for both 201 and 211.
- 212. Physics for Scientists and Engineers II (4).** *Prerequisites: PHS 211, MS 126. Concurrent enrollment in PHS 214 is required.* The second semester of this sequence begins by studying electricity and basic circuits, followed by magnetism. A section on light, including lenses and mirrors, follows. The behavior of light waves, such as rainbows and soap bubbles, will also be explored. Finally, topics from quantum mechanics and special relativity are introduced to give students a flavor of the revolutionary nature of these topics in their original scientific setting. Once again, calculus will be used throughout the course. Credit will not be granted for both 202 and 212.
- 213. Elementary Laboratory Techniques I (1).** *Concurrent enrollment in PHS 211 is required.* Two laboratory hours each week. Concepts of physics developed in the associated courses will be studied through the use of hands-on activities. Students will work in groups to explore topics in motion, mechanics, waves, and sound.
- 214. Elementary Laboratory Techniques II (1).** *Concurrent enrollment in PHS 212 is required.* Two laboratory hours each week. Concepts of physics developed in the associated courses will be studied through the use of hands-on activities. Students will work in groups to explore topics in electricity, magnetism, optics, and modern physics.

#### COURSES FOR WHICH PHS 202 OR 212 ARE PREREQUISITES

- 383. Special Topics (3).** This course will explore a topic of current interest in the field of physics. May be taken twice for a total of 6 semester hours.
- 411. Laboratory Practicum (1).** Four hours of laboratory per week. Students learn to utilize pieces of equipment and demonstration techniques while assisting an instructor to prepare and conduct lab sessions. This course may be repeated for a maximum of four semesters for a total of 4 semester hours. Not for credit toward a minor.

#### COURSES FOR WHICH PHS 211, 213, 212, 214 ARE PREREQUISITES

- 301. Modern Physics (3).** Explore the two 20th century revolutions in physics: quantum mechanics and special relativity. We will study the evidence that led to the acceptance of each of these theories and some of the implications of these theories. Both quantum mechanics and relativity have become part of the popular culture. This course offers the opportunity to understand their ideas in their original context and see how popular culture usage differs from scientific usage.
- 303. Classical Mechanics (3).** This course investigates various aspects of classical mechanics, including kinematics and dynamics of motion, rigid bodies, oscillatory motion, central forces and gravitation, and Lagrangian and Hamiltonian formulations of classical mechanics.
- 343. Electromagnetism I (3).** *Prerequisite: MS 227.* Electric and magnetic fields will be studied. What are their origins? What features of nature affect the nature and strength of the fields? What are some of their effects? Maxwell's equations uniting all of electricity and magnetism will be seen in their full glory.
- 443. Electromagnetism II (3).** *Prerequisite: PHS 343.* Continuing the study begun in PHS 343, changing electromagnetic fields are investigated. These changing fields form electromagnetic waves in free space and matter that exhibit all of the standard behaviors of waves. Thus, topics will include reflection and refraction of electromagnetic waves, guided waves, and the field of a moving charge.
- 491. Quantum Mechanics I (3).** *Prerequisites: PHS 301, MS 344.* This course extends the investigation of quantum mechanics begun in PHS 301 to include the full mathematical development of the theory. Basic tools, including linear operators and matrices, will be used to explore physical systems, such as a particle in a box, a linear harmonic oscillator, the hydrogen atom, and a one-dimensional crystal.
- 492. Quantum Mechanics II (3).** *Prerequisite: PHS 491.* This course deals with a number of topics pertaining to non-relativistic quantum mechanics, including addition of angular momentum, identical particles and multi-electron atoms, time-independent approximation method and applications, time-dependent perturbation theory and scattering theory.

## DEPARTMENT OF POLITICAL SCIENCE AND PUBLIC ADMINISTRATION (PSC)

220 BREWER HALL

Department Head: TBA

Professors: Barnett, Lester, Owens

Associate Professors: Hathaway, Krejci, Saeki

Assistant Professors: Dial, Russell

The Department of Political Science and Public Administration offers a variety of courses for students in the liberal arts, pre-law, and professional education curricula. A wide range of courses is available for those preparing for careers in law, government, politics, international affairs, business, communications, and many other fields.

The Political Science major requires thirty hours of political science, including Political Science 100, 102, and at least six hours from each of the three fields (Theory and Methodology, American Government, and Global Studies) listed below, plus six hours of political science electives. In addition to the thirty hours of political science, Criminal Justice 101 is required. The Political Science minor requires twenty-one semester hours, including Political Science 100, 102, and at least three hours from each of the three fields listed below, plus six hours of political science electives.

### Fields of Political Science

**Theory and Methodology:** PSC 301, 451, 452, 454, and 455. (It is strongly recommended that majors considering graduate study take PSC 301.)

**American Government:** PSC 101, 203, 230, 342, 352, 402, 412, 443, 444, 445, 447, 450, 482, 493, 498, and 499.

**Global Studies:** PSC 375, 377, 421, 423, 430, 431, 432, 433, and 435.

### Pre-Law

There is no specific major in pre-law; however, a large percentage of students planning to attend law school select Political Science as a major. Beyond the requirements of the major, it is recommended that pre-law students take courses in logic, economics, accounting, real estate, and advanced composition. Students should meet with Dr. Owens regarding advisement for pre-law. Regardless of major, pre-law students must take PSC 203, Introduction to Law, during the freshman or sophomore year. All upper division pre-law students must take PSC 443, Constitutional Law I, or PSC 444, Constitutional Law II.

The Political Science Department sponsors the Pre-law Society, maintains relations with regional law schools, and provides application and informational materials for the Law School Admissions Test (LSAT).

### Minor in International Studies

Students whose interest and/or career plans have an international orientation may wish to pursue a minor in International Studies. While the International Studies minor is administered by the Political Science Department, any major offered by the University (including Political Science) is acceptable. Twenty-four semester hours, distributed as follows, are required for the International Studies minor.

#### Political Science: (twelve hours\*)

PSC 100\* (Political Science majors must take an additional course from the Global Studies field.)

PSC 421 or 423

PSC 432

Three hours selected from PSC 305, 375, 377, 421, 430, 433, and 435.

#### Geography: (six hours\*)

GY 320, 341, or 466

Three hours selected from GY 351, AN 345, and 347\*\*

#### Electives: (six hours\*)

Two courses selected from any of the following:

Foreign Languages—by advisement\*\*

History—HY 302, 332, 333, 404, 409, 410, 411, 465, 468, 469, 470, 471, 473, 480, 481, 483, and 485\*\*

Sociology—SY 366

College of Commerce and Business Administration—EC 305, 450; FIN 434; MGT 496

In addition to the above, students minoring in International Studies must take History 101 and 102 and must take Geography 120 and 220. The history courses and geography courses may also count toward the general studies curriculum history and social/behavioral science requirements.

\* Courses counted toward the major may not also be counted toward the International Studies minor.

\*\* Where possible, all area-specific courses should focus on the same area: Western Europe, the former Soviet Union and Eastern Europe, Far East, Latin America, the Middle East, and so on.

**POLITICAL SCIENCE (PSC)**  
**DESCRIPTION OF COURSES**

100. **Introduction to American Government (3).** Structure and organization of the American national government. Evolution of the United States Constitution and the federal system, civil rights, voting and elections, Congress, the President, and the federal courts.
101. **Introduction to Political Science (3).** Nature and scope of political science, basic concepts and terminology, nature of the state and government, types of political systems, comparative political institutions.
102. **Introduction to State and Local Government (3).** A study of the organization, functions, and powers of state, county, and municipal governments in the United States.
103. **Honors Introduction to American Government (3).** Structure and organization of the American national government. Evolution of the United States Constitution and the federal system, civil rights, voting and elections, Congress, the President, and the federal courts.
203. **Introduction to the Law (3).** An examination of the American legal system, court procedures, appeals procedures, and the use of legal reference materials with selected cases.
230. **Politics and Film (3).** Current impact and historical influence of film upon American politics and policy. Includes scholarship about the movie industry and civic values. Students view political films.
301. **Political Science Methods (3).** The scope and approaches to political science with considerable attention to research methods, techniques, and current research problems.
342. **Political Parties (3).** Composition, organization, and function of American political parties on the national, state, and local levels.
352. **The Legislative Process (3).** American legislative bodies with emphasis upon recruitment, composition, structure, procedures, functions, role of parties and pressure groups, and problems of legislative reform.
375. **Governments of Latin America (3).** Political organization and structure of the principal Latin-American countries with emphasis on constitutional development and present-day issues.
377. **Governments of the Middle East (3).** The government and politics of the Middle East with attention to present developments and the role of these countries in world affairs.
402. **Introduction to Public Policy (3).** *Prerequisite: PSC 100.* A survey of the functions and major programs of the United States federal government, including federal taxes and spending, the regulation of business, national labor policy, public health and welfare programs, conservation and the environment, and national defense and foreign policy.
410. **Religion, Politics and Policy (3).** Explores the historical and constitutional foundations of religious freedom in America. Probes First Amendment jurisprudence. Examines current debates about free exercise, public interest religion, policy making, and religion in global affairs.
412. **Inter-governmental Relations (3).** *Prerequisite: PSC 100.* Examines the development, institutions, processes, and problems of state and local government in the United States and their interaction with each other and with the federal government.
423. **American Foreign Policy (3).** Traces main streams of American foreign policy from the twentieth-century to the present. Major American foreign policy decisions are used in the analytical development of American foreign policy processes. The various influences upon foreign policy decision-making are identified and evaluated.
430. **Governments of Asia (3).** Examines the political systems and political cultures of Asian countries from Afghanistan to Southeast Asia, with major emphasis on India, China, and Japan.
431. **Comparative Politics (3).** An examination of the government and politics of a variety of different national states that includes the concepts, ideas, and analytical tools necessary to understand the structures and processes of different types of political systems. Covers western and non-western, developed and less developed, communist and post-communist, and newly industrializing countries. The impact of globalization is also examined.
432. **International Relations (3).** Background and basic principles of international politics with emphasis on the modern state system, nationalism, changes in international politics from World War II to the present, and domestic influences on foreign policy.
433. **Governments of Europe (3).** *Prerequisite: PSC 100.* Examines the political systems and political cultures of Europe with major emphasis on Great Britain, France, Germany, and Russia.
443. **Constitutional Law I (3).** Fundamental principles of the United States Constitution and its development. Topics include powers of President and Congress, federalism, interstate commerce, and others. Textbook and case methods.
444. **Constitutional Law II (3).** Relationship between the individual and government as revealed through constitutional law cases. Major emphasis will be on civil liberties based on the interpretation of the Bill of Rights and the Fourteenth Amendment. Textbook and case methods.
445. **Southern Politics (3).** An examination of the party system of the Southern states in terms of its origin, nature, distribution of power, and impact on national politics.

447. **Politics and Public Opinion (3).** Forces affecting politics, public opinion, and elections in the United States. Examines the election structure, as well as individual and group political participation.
450. **The American Executive (3).** The role and behavior of the American executive at the national, state, and local levels in the U.S. political system with emphasis upon the American Presidency.
451. **Ancient and Medieval Political Theory (3).** Examines political thought from ancient Greece to the late Middle Ages in Europe. An emphasis is placed on the historical-cultural context in which these theories developed and their influence on modern concepts.
452. **Modern Political Theory (3).** Examines the major trends in political thought from the Early Modern Era of the 1600's to the present with emphasis upon the development of classical (conservative) liberalism, progressive or new liberalism, socialism, Marxist communism, fascism, and national socialism.
454. **American Political Thought (3).** Principal ideas of leading political thinkers in America from the colonial period to the present.
455. **Introduction to Political Psychology (3).** This course is an overview of the interdisciplinary connection between political and psychological processes. The incorporation of political science and psychology may help in the understanding of why leaders behave as they do and why citizens support or oppose political leaders. The course will include social cognition and decision making, personality and identity, and environmental factors that affect individual political ideologies. (PSC 455 is cross-listed with PSY 446, but only one course may be taken for credit.)
482. **Grantwriting (3).** Practical course instructing the steps involved in the grantwriting process. This course includes strategic planning, research, finding appropriate grant sources and writing the grant.
- 484, 485. **Individual Study (3) (3).** *Prerequisites: Must be major or minor with advanced standing and have permission of instructor.* Involves extensive study/research upon specific topics under close supervision by instructor. Letter grades are assigned for these courses.
493. **The Judicial Process (3).** *Prerequisite: PSC 100.* A study of the judicial process through actual attendance at court trials. Meetings and discussions are held with judges, lawyers, prosecutors, and others.
- 498, 499. **Internship (3) (3).** *Prerequisite: 15 hours of Political Science.* Involves supervised assignment of student either to the U.S. Congress or Alabama State Legislature or to an area public agency, such as the East Alabama Regional Planning Commission, City of Anniston, Calhoun County District Attorney's Office, Alabama Seventh Judicial Circuit offices, or a lawyer's office. Pass/Fail grade only.

**PLAN OF STUDY  
BACHELOR OF ARTS  
MAJOR: POLITICAL SCIENCE**

*In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations.*

**FRESHMAN YEAR**

Fall	Spring
EH 101 .....3	EH 102 .....3
HY 101 or 201 .....3	EH 141 .....3
PSC 100 .....3	HY 102 or 202 (to complete seq) .....3
Fine Arts .....3	PSC 102 .....3
MS 110 or higher .....3	MS higher than 110 (MS 204 recommended).....3
STU 101.....0	
15	15

**SOPHOMORE YEAR**

Fall	Spring
Literature .....3	Literature .....3
Natural Science sequence .....4	Natural Science sequence .....4
Social/Behavioral Science .....3	Social/Behavioral Science .....3
CS 201 .....3	Wellness .....3
CJ 101 .....3	Minor/general electives .....5
16	18

**JUNIOR YEAR**

Fall	Spring
PSC Amer. Govt. elec. ....3	PSC Amer. Govt. elec. ....3
PSC Global Studies elec. ....3	PSC Global Studies elec. ....3
Minor/general elec. ....12	Minor/general elec. ....10
18	16

**SENIOR YEAR**

Fall	Spring
PSC Theory & Method. elective ....3	PSC Theory & Method. elective ....3
PSC 300+ .....3	PSC 300+ .....3
Minor/electives .....9	Minor/general electives .....9
15	15

**TOTAL HOURS: 128**

**PLAN OF STUDY**

**BACHELOR OF ARTS  
MAJOR: POLITICAL SCIENCE/PRE-LAW**

*In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations.*

**FRESHMAN YEAR**

Fall	Spring
EH 101 .....3	EH 102 .....3
HY 101 or 201 .....3	EH 141 .....3
PSC 100 .....3	HY 102 or 202 (to complete seq) .....3
Fine Arts .....3	PSC 102 .....3
MS 110 or higher .....3	MS higher than 110 (MS 204 recommended).....3
STU 101.....0	
15	15

**SOPHOMORE YEAR**

Fall	Spring
Literature .....3	Literature .....3
Natural Science sequence .....4	Natural Science sequence. ....4
Social/Behavioral Science .....3	EC 222* .....3
CS 201 .....3	Wellness .....3
CJ 101 .....3	ACC 200* .....3
PSC 203** .....3	
19	16

**JUNIOR YEAR**

Fall	Spring
PSC Amer. Govt. elective .....3	PSC Amer. Govt. elective .....3
PSC Global Studies elective .....3	PSC Global Studies elective .....3
EH 344* .....3	FIN 341* .....3
Minor/general electives .....9	Social/Behavioral Science .....3
18	15

## SENIOR YEAR

Fall	Spring
PSC Theory & Method. elective .....3	PSC 444*** .....3
PSC 443*** .....3	PSC Theory & Method. elective .....3
Minor/general electives .....9	Minor/general electives .....9
15	15

**TOTAL HOURS: 128**

\*These courses are suggested electives and should be taken only after advisement by the pre-law advisor.

\*\*PSC 203 is required for pre-law students.

\*\*\*PSC 443 or PSC 444 required for pre-law students.

## DEPARTMENT OF PSYCHOLOGY (PSY)

### 211 AYERS HALL

Department Head: Paige McKerchar

Professor: Palya

Associate Professors: Dempsey, P. McKerchar, T. McKerchar, Robertson

Assistant Professors: Bayles, Bruzek

Instructors: Conroy, Cothran

The Psychology Department's mission is to develop a thoroughgoing, science-based psychology curriculum for understanding behavior; to establish student learning outcomes related to basic psychological principles, research methods, critical thinking, and professional skills; and to support student participation in research programs and community service projects. These experiences are designed to allow students the opportunity to practice discussing major psychological principles and research findings; to apply psychological principles and procedures to real-life settings; and to eventually pursue careers in an array of human-service industries or admission to various graduate programs.

**Psychology Major (B.S.).** The course requirements for a major in Psychology total **120 semester hours**, including **General Studies requirements (60 semester hours):** *Area I. Written Composition (6 hours) – EH 101/103 and EH 102/104; Area II. Humanities and Fine Arts (12 hours) – EH 141, two literature courses (EH 201, 202, 203, 204, 219, 220, 231, or 232), and one fine arts course (FH 101, 102, 201, 202; SH 101, 102, 201, 202; ART 202, DR 242, or MU 233); Area III. Natural Sciences and Mathematics (11 hours) – MS 108 or higher and one science sequence (BY 101/103 and BY 102/104; CY 105/107 and CY 106/108; GL 241/243 and GL 242/244; GY 250/252 and GY 251/253; or PHS 201/203 and PHS 202/204); Area IV. History, Social, and Behavioral Sciences (12 hours) – one history sequence (HY 101 and 102 or HY 201 and 202) and two social science courses (AN 224, EC 221, EC 222, GY 120, GY 220, PSC 100, or SY 221); and Area V. Pre-professional, Major, and Elective Courses (19 hours) – CS 201 or higher; MS 204 or MS 302; PSY 201 and PSY 205; 9 elective hours (minor courses may be used to meet elective requirements);* **thirty-six (36) semester hours in psychology:** *Core courses (12 hours) – PSY 220, 221, 301, and 450; and elective courses (24 hours) – select from courses listed 300 or above (excluding required courses), but only 6 hours from courses numbered 460-499 can count toward this requirement; and a minor in another academic discipline.* A suggested "Plan of Study" is located after the "Description of Courses" below.

**Psychology Minor.** The requirements for a minor are **twenty (20) semester hours**, including PSY 220, 221, and 301 (PSY 201 is a prerequisite for these courses); and **12 hours of electives** numbered 300 or higher (excluding PSY 301). Students may only count 3 hours of courses numbered 460-499 toward their psychology minor.

## PSYCHOLOGY (PSY) DESCRIPTION OF COURSES

- 201. Principles of Psychology (3).** An introduction to basic methodology, principles, and terms of contemporary psychology. Stresses a scientific analysis of behavior. Direct experience with research psychology or its equivalent may be required.
- 202. Honors Principles of Psychology (3).** An introduction to the methodology, principles and terms of contemporary psychology, with emphasis on the scientific investigation of behavior. Direct experience with research psychology or its equivalent may be required.
- 205. Orientation to Psychology (1).** An introduction to what psychologists do, what jobs are available in psychology, and how students should proceed through a major in psychology. For students considering a psychology major or who have declared a psychology major. (*Grade of Pass/Fail*)
- 220. Principles of Behavior Analysis (3).** *Prerequisite: "C" or better in PSY 201 or 202. Suggested corequisite: PSY 221.* An introduction to principles of behavior analysis stressing experimental design, observing and recording techniques, and the basic principles of operant conditioning, including schedules of reinforcement.

221. **Behavior Analysis Lab (1).** *Prerequisite: "C" or better in PSY 201 or 202. Corequisite or prerequisite: PSY 220.* Stresses the skills involved in specifying, observing, and consequenting behavior, and teaches the standard techniques of behavioral laboratories.
222. **Human Development (3).** Study of mental, physical, social, and emotional life of the individual throughout the life span. Special attention given to the first two decades of life. Note: PSY 222 counts as an Area V elective for PSY majors and minors.
301. **Research Methods and Statistics (4).** *Prerequisite: "C" or better in PSY 201 or 202. Prerequisites or corequisites: MS 204 or MS 302, PSY 220, PSY 221.* Introduction to scientific research methodology and statistics as applied to psychological research.
323. **Adult Development and Aging (3).** *Prerequisite: "C" or better in PSY 201 or 202.* Introduction to methodological, empirical, and theoretical perspectives of psychological development during adulthood. Topics include physical and cognitive development, personality, social development, and the role of work.
327. **Child and Adolescent Development (3).** *Prerequisite: PSY 221.* The study of human development from prenatal development to adolescence. Topics include psychological theories of physical and motor development, cognitive development, social development, and emotional development, as well as the application of these theories to everyday life.
330. **Abnormal Psychology (3).** *Prerequisite: "C" or better in PSY 201 or 202.* Examines the major forms of and theoretical explanations for behavior patterns which have been culturally defined as deviant or psychologically abnormal.
331. **Abnormal Child Psychology (3).** *Prerequisite: "C" or better in PSY 201 or 202.* Integration of theory and empirical research on a wide range of child and adolescent disorders. The course provides a comprehensive coverage of the biological, psychological, and social-contextual determinants of childhood problems. Specific disorders will be presented, describing their characteristics, developmental course, and epidemiology; outlining current diagnostic and classification schemes; identifying risk and protective factors; and discussing implications for prevention and treatment. (Not open to students with credit for PSY 412.)
336. **Personality and Individual Differences (3).** *Prerequisite: PSY 301.* Overview of the major theories, approaches to measuring personality variables, research findings, and applications in the scientific study of personality. (Not open to students with credit for PSY 335.)
337. **Psychology of Gender (3).** Studies of the origin of sex differences within three theoretical models: biological, psychological, and sociological. Examination of the nature of these differences emphasizing current research in areas such as androgyny, sex typing, sexuality, employment, tokenism, and marriage.
350. **Social Psychology (3).** *Prerequisite: PSY 301.* The study of how others influence an individual's behaviors, thoughts, and emotions. Topics include social influence, persuasion, attitude-behavior consistency, prosocial behavior, aggression, causal attribution, and affiliation.
352. **Human Sexuality (3).** Study of the psychological, physiological, social, and behavioral aspects of human sexuality. Topics include sexual orientation, sexual anatomy, contraception, sexually transmitted diseases, pregnancy/birth, and sexuality through the life cycle.
354. **Introduction to Applied Behavior Analysis (3).** *Prerequisites: PSY 220 and 221.* The application of behavioral principles and behavior assessment, including the measurement of human behavior, experimental design, and data analysis and interpretation. (Not open to students with credit for PSY 362.)
355. **Positive Psychology (3).** *Prerequisite: "C" or better in PSY 201 or 202.* Overview of diverse topics, such as happiness, relationships, spirituality, aesthetic appreciation, work satisfaction, self-control, integrity/ethics. Self-assessment and critical thinking are emphasized.
364. **Behavior-Change Procedures in Applied Behavior Analysis (3).** *Prerequisite: PSY 354.* Discussion of fundamental elements of behavior change and specific behavior change procedures, including those used to teach and maintain appropriate behaviors, eliminate inappropriate behaviors, and develop comprehensive behavioral intervention programs.
366. **Cognitive Psychology (3).** *Prerequisite: PSY 301.* This course reviews processes, such as memory, concept formation, reasoning, critical thinking, problem solving, and applications of cognitive science. (Not open to students with credit for PSY 415.)
383. **Biological Psychology (3).** *Prerequisite: PSY 301.* Study of the physiological structures and mechanisms that mediate between environmental events and behavior. (Not open to students with credit for PSY 400.)
384. **Introduction to Sensation and Perception (3).** *Prerequisite: PSY 301.* The course provides an up-to-date review of sensory and perceptual processes integrating basic physiology with psychology. (Not open to students with credit for PSY 423.)
399. **Study Tour (3).** *Prerequisite: Permission of instructor.* Topics, excursions, and requirements determined by department. May be duplicated for credit; however, only three (3) credits may be applied toward any major or minor. Infrequently scheduled and subject to minimum and maximum numbers. Advance deposit required.
401. **Professional Development (3).** *Prerequisite: "C" or better in PSY 201 or 202.* How to choose a career or graduate program in psychology or related field, evaluate and improve your credentials, and prepare to apply. Recommended for junior-level students. (Not open to students with credit for PSY 305.)

- 403. Psychological Testing (3).** *Prerequisite: PSY 301.* Introduction to the basic concepts, principles, and methods of psychological assessment centered on historical foundations, test construction, and evaluation (psychometrics), and ethical issues pertaining to the use of psychological tests. The application of commonly used types of intelligence, personality, scholastic, clinical, and vocational tests are also considered.
- 404. Data-Based Decision Making in Applied Behavior Analysis (3).** *Prerequisite: PSY 354.* Examination of single-subject experimental design and professional skills pertinent to research and practice in applied behavior analysis.
- 411. Topics in Social Psychology (3).** *Prerequisite: PSY 301.* Intensively explores one or two topics within social psychology. Sample topics include emotion, empathy and altruism, happiness, judgment and decision-making, social psychology in film, social influence, and prejudice and stereotyping.
- 425. Health Psychology (3).** *Prerequisite: PSY 301.* The use of psychological techniques within medical settings for problems such as hypertension, pain, asthma, eating disorders, and smoking.
- 433. Cultural Psychology (3).** *Prerequisite: PSY 301.* Beginning with an examination of theoretical definitions of culture, the course covers a broad range of theories and research findings regarding cultural influences on human behavior and cognitive processes.
- 436. Drugs, Society, and Human Behavior (3).** *Prerequisite: "C" or better in PSY 201 or 202.* Provides an overview of current drug-related issues, including societal trends, basic pharmacology of drug action, legislation, treatment, and prevention.
- 444. Conditioning and Learning (3).** *Prerequisite: "C" or better in PSY 220, PSY 221.* A review of research, investigating the basic parameters of conditioning and its theoretical implications. Topics covered will include operant and respondent conditioning.
- 446. Introduction to Political Psychology (3).** *Prerequisite: "C" or better in PSY 201 or 202.* This course is an overview of the interdisciplinary connection between political and psychological processes. The incorporation of political science and psychology may help in the understanding of why leaders behave as they do and why citizens support or oppose political leaders. The course will include social cognition and decision making, personality and identity, and environmental factors that affect individual political ideologies. (*PSY 446 is cross-listed with PSC 455, but only one course may be taken for credit.*)
- 447, 448. Psychology Seminar (3) (3).** *Prerequisite: Permission of instructor.* Examines relevant research and conceptual issues related to varying topics in psychology, such as self-control, family violence, and evolutionary psychology. When offered, a more detailed description will be available on the department website.
- 450. History and Systems of Psychology (4).** *Prerequisites: "C" or better in PSY 301 and senior standing.* Examines the historical evolution of modern psychology and the conceptual systems that have been developed. This course serves as the psychology capstone course, and the Major Field Test in Psychology is required.
- 460, 461. Instructional Practicum (3) (3).** *Prerequisite: Permission of instructor.* Practice of behavioral techniques in an instructional setting. Only students with exceptional performance in psychology classes will be considered for this practicum.
- 480, 481. Community Practicum (3) (3).** *Prerequisite: Permission of instructor.* Practice of psychological techniques in community organizations, such as mental health clinics, juvenile detention centers, etc. (*Grade of Pass/Fail*)
- 485, 486. Applied Behavior Analysis Practicum (3) (3).** *Prerequisites: PSY 220, PSY 221, and permission of instructor.* Practice of behavior analysis principles in applied settings, such as developmental centers and organizations.
- 490, 491. Individual Research (3) (3).** *Prerequisites: PSY 301 and permission of instructor.* Students will conduct supervised research projects chosen in coordination with their supervisor.
- 498, 499. Honors Thesis (3) (3).** *Prerequisites: PSY 301, permission of thesis supervisor, and senior standing.* Completion of an original research project developed in conjunction with a psychology faculty member.

**PLAN OF STUDY**  
**BACHELOR OF SCIENCE**  
**MAJOR: PSYCHOLOGY**

Note: This is only a suggested plan of study. Variations may occur due to individual circumstances.

*In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations.*

**FRESHMAN YEAR**

Fall	Spring
EH 101 .....3	EH 102 .....3
EH 141 .....3	Social/Behavioral Science .....3
HY 101 or 201.....3	History Sequence .....3
PSY 201/202, Principles of Psychology .....3	MS 108 or higher .....3
PSY 205, Orientation to Psychology .....1	PSY 220, Prin. Beh. Analysis .....3
STU 101.....0	PSY 221, Beh. Analysis Lab .....1
(MS 100, if required)	
13	16

**SOPHOMORE YEAR**

Fall	Spring
EH Literature .....3	EH Literature .....3
Natural Science sequence .....4	Natural Science sequence .....4
MS 204 .....3	PSY 301, Research Methods & Stats.....4
Social/Behavioral Science.....3	Minor/electives.....3
CS 201 or higher .....3	
16	14

**JUNIOR YEAR**

Fall	Spring
Fine Arts .....3	PSY electives 300+ .....6
PSY electives 300+.....6	Minor/electives .....9
Minor/electives .....6	
15	15

**SENIOR YEAR**

Fall	Spring
PSY electives 300+.....9	PSY 450, History & Systems of PSY .....4
Minor/electives.....6	PSY elective 300+ .....3
	Minor/electives.....9
15	16

**TOTAL HOURS: 120**

DEPARTMENT OF SOCIOLOGY (SY)  
AND SOCIAL WORK (SW)

The BSW Program is accredited by the Council on Social Work Education.

307 BREWER HALL

Department Head, BSW Program Director: Maureen Newton  
Professors: Deshotels, Newton, Stewart  
Associate Professor: Rider  
Assistant Professors: Donley, Lockett, Rider, Ross, Trask  
Instructors: Adams, Barclift, Snider, Whorton

The goals of Social Work are to provide knowledge of human behavior, the values and ethics of the social work profession, and the problem-solving and interpersonal skills necessary for generalist social work practice in a variety of settings. The goals of Sociology are to acquaint the student with the nature of social behavior, social relations, culture, the structure of society, and the tensions and conflicts produced by changes, expanding technologies, and knowledge.

**BACHELOR OF SOCIAL WORK (B.S.W.).** Students completing the BSW degree will be prepared for entry-level generalist social work practice. The BSW degree requires 128 hours. The GENERAL STUDIES REQUIREMENTS FOR THE BSW DEGREE total 64 hours: **Area I. Written Composition**—EH 101 and EH 102 = 6 hours. **Area II. Humanities and Fine Arts**—2 literature courses (EH 201, 202, 203, 204, 219, 220, 231 or 232); EH 141; and one course from the arts (ART 202, MU 233, FL 101, or DR 242) = 12 hours. **Area III. Natural Sciences and Mathematics**—BY 101, 102, 103, and 104, and MS 108, 110 or 112 = 11 hours. **Area IV. History, Social, and Behavioral Sciences**—HY 101 and HY 102 or HY 201 and HY 202; PSY 201; and SY 221 = 12 hours. **Area V. Pre-professional, Major, and Elective Courses**—EC 221 or 222; PSC 100; MS 204; CS 201; one course from the following (FCS 215, HPE 212, MSC 115, or HPE 109); and 8 hours of general electives = 23 hours.

The requirements for a Bachelor of Social Work degree include 54 semester hours of social work courses. The following 39 hours of social work courses are required: SW 330, 332, 350, 360, 380, 381, 390, 391, 448, 449, and 450. Introduction to Social Work (SW 330) is a prerequisite for all social work classes except SW 370 and 371. Students will get their remaining 15 hours in social work by taking five social work elective courses from among the following: SW 333, 334, 335, 336, 338, 339, 340, 343, 365, 370, 371, 392, 395, 399, 441, 442, and 443. Students working on a BSW degree are not required to have a minor in another academic discipline. Social Work majors must earn a minimum of "C" or better in each of the social work courses.

**Admission to the BSW Program requires passage of at least 30 semester hours (including MS 108, 110 or 112 and MS 204), a 2.25 overall GPA, a grade of "C" or better in SW 330 (Introduction to Social Work), successful completion of SW 390, and a passing score on the English Competency Exam.** *Applications for admission to the Bachelor of Social Work Degree Program* are distributed to students enrolled in SW 390. This application should be submitted to the Program secretary upon completion of SW 390. **(No student can take SW 391 without admission to the BSW Program.)** Students denied admission are encouraged to complete the application as soon as they meet the requirements and return it to the secretary for the BSW Program in Room 309 Brewer Hall. **Students must have been formally accepted to the Social Work Program before taking SW 391, 448, 449, and 450.** Students must maintain a 2.25 GPA in Social Work and a 2.25 GPA overall in order to graduate. See the BSW Program Web Page at <http://www.jsu.edu/socialwork/index.html> for complete information about the BSW Program.

**MAJOR IN SOCIOLOGY (B.A. or B.S.).** The requirements for a major in Sociology are a total of 120 semester hours, which includes meeting all University and program general education requirements, including 30 semester hours of Sociology coursework, and either a second major or minor. Of the 30 hours required for the Sociology degree, 15 hours are dictated by the program, while the additional 15 hours are Sociology electives. The 15 hours of required Sociology courses include: SY 221 or 222, 301, 313, 427 or 428, and 499. The additional 15 hours will be selected from only Sociology courses and must be at the 300 or higher level. Mathematic requirements include MS 108 or higher and MS 204. Sociology Majors must earn a minimum of "C" or better in each of the major and minor courses.

Introduction to Sociology (SY 221 or SY 222) is a prerequisite for all Sociology courses. SY 427, 428, and 499 have additional prerequisites. Sociological Methods (SY 301) and Basic Statistics (MS 204) should be taken prior to Sociology 300+ electives. Students are urged to consult with their academic advisor who will be helpful in choosing electives. Students should balance breadth and depth as best suits their own needs and future plans.

**SOCIOLOGY MINOR.** The requirements for a minor in Sociology are a minimum of 18 semester hours which must include SY 221 or 222 and 301. The remaining 12 hours are electives which must be chosen from courses in the Sociology listing.

**GERONTOLOGY MINOR.** This minor provides an interdisciplinary approach to the study of aging in America. It prepares students to understand the problems, prospects, and policy issues involved in aging. The requirements for a minor in Gerontology are 18 semester hours which must include SY 370 or SW 370 and SY 340 or SW 371. The remaining 12 hours are electives which must be chosen from the following courses—SY 360, SY 364, SY 366, SY 441, SY 442, SY 443, SY 452, SY 495, SW 334, SW 335, SW 380, SW 441, HPE 420, REC 311, and PSY 323. There are no prerequisites for Gerontology minors.

**SOCIAL WORK (SW)**  
**DESCRIPTION OF COURSES**

300. **Interpersonal Skills and Human Relations (3).** This course examines interpersonal skills and helping relationships. The course is designed to help students better understand themselves and their personal and professional relationships. Critical thinking skills, problem-solving techniques and conflict resolution tactics are emphasized.
330. **Introduction to Social Work (3).** Designed to assist the student who is considering social work as a career. Fundamental concepts of social work, client systems, fields of practice, history, and the current status of social work are presented. Students are required to complete 30 hours of volunteer work in fulfilling course requirements.
332. **Social Policy and Services (3).** *Prerequisites: SW 330, SW 380, and SW 390.* Current social policies and programs are presented and analyzed. Information on influencing policy formulation in the administrative, legislative, and judicial arenas is emphasized.
333. **Family and Child Welfare Services I (3).** *Prerequisite: SW 330.* An exploration of the history of child welfare service in this country, as well as current trends in this field of social work. Foster care, adoption, and protective services will be viewed in a historical perspective, ending with an evaluation of current policy and future implications for social work practice in child welfare areas.
334. **Service Learning (3).** *Prerequisite: SW 330.* Current trends and the historical development of service learning in social services are discussed. Developing, managing, and evaluating service learning programs are reviewed. Students are required to complete 40 volunteer hours in a social service organization.
335. **Social Work in Health Care (3).** *Prerequisite: SW 330.* This course explores social work practice in various health care settings, such as hospitals, health maintenance organizations, long-term care facilities, and home health care agencies. The psychosocial aspects of working with clients (patients) and the range of intervention strategies available to social work practitioners will be discussed.
336. **Crisis Intervention (3).** *Prerequisite: SW 330.* This course provides content in crisis theory and intervention strategies. May be used as an elective in social work.
338. **Social Work and Mental Health (3).** *Prerequisite: SW 330.* This course is designed to teach the identification, symptomology, and current trends in the treatment of mental illness. Emphasis will be placed on the diagnosis and treatment of dysfunctional cognitive, emotive, and behavioral disorders.
339. **Communication in Social Work Practice (3).** *Prerequisite: SW 330.* An exploration of the historical development and current trends in both verbal and written forms of social work communication. Students will gain understanding in the development of effective presentations, psychosocial assessments, memorandums, proposals, progress notes, agendas, minutes, and other types of communication needed to be effective social work practitioners.
340. **Social Work and Substance Abuse (3).** *Prerequisite: SW 330.* This course presents the current trends related to the use, abuse, and addiction of alcohol and drugs. Treatment options and legal ramifications will be explored.
343. **Family and Child Welfare Services II (3).** *Prerequisite: SW 330.* This course examines contemporary theory, practices, and services in the field of child welfare and social services for children and families. Emphasis is placed on supportive, supplementary, and substitute care services in child welfare, including skills and knowledge most helpful in case management with children and families.
350. **Social Work Research (3).** *Prerequisites: SW 330 and CS 201.* This course will focus on the application of theories and skills of social research to social work practice with individuals, groups, organizations, and communities. It is recommended this course be taken soon after SW 330. Students can use the skills and knowledge developed in this course to better complete the research assignments in the advanced social work courses. **(Social Work Majors only.)**
360. **Cultural Diversity and Social Justice (3).** *Prerequisite: SW 330.* Content is presented that promotes understanding, affirmation, and respect for people from diverse backgrounds. Content focuses on how prejudice, discrimination, and exclusion affect the experiences of members of diverse groups.
365. **Perspectives on Poverty (3).** This course explores the heritage of poverty in the United States and the implications of the myths, facts, and social policies that influence and affect individuals, families, and communities. The course emphasizes the complex causes and prevalence of poverty and explores poverty research and models to eradicate or prevent poverty.
370. **Aging and Human Development (3).** An examination of aging in the United States. Primarily a sociological perspective, but deals with the psychological and biological aspects of aging, as well as contemporary demographic, economic, and political trends. **(SW 370 is cross-listed with SY 370, but only one course can be counted for credit.)**
371. **Perspectives on Death and Dying (3).** An examination of the attitudes of differing cultures and subcultures toward death, which encourages students to supplement relevant readings by discussing personal attitudes toward death and dying. Current research in this topic will be explored by lectures, films, and reading. By better understanding death and dying, students can explore in this course opportunities for growth and for improving the quality of life. **(SW 371 is cross-listed with SY 340, but only one course can be counted for credit.)**

380. **Human Behavior and Social Environment I (3).** *Prerequisites: BY 101, 102, 103 and 104.* Information about the stages of the human life cycle from birth through old age is presented. Attention is given to the biological and social factors of human development. SW 380 may be taken concurrently with SW 330. **(Social Work Majors only.)**
381. **Human Behavior and Social Environment II (3).** *Prerequisites: SW 330 and SW 380.* The focus is on the following social systems: family, group, organization, community, culture, and society. Human behavior within these systems and the behavior of these systems as entities are studied. **(Social Work Majors only.)**
390. **Social Work Practice I (3).** *Prerequisite: SW 330.* Generalist social work practice, ethics and values of the social work profession, and basic helping skills will be studied. Students will begin to acquire generalist social work practice skills and an identity with the social work profession. **(Social Work Majors only.)**
391. **Social Work Practice II (3).** *Prerequisites: SW 330 and SW 390, and admission to the BSW Program.* Generalist practice skills will be developed for work with families and groups. Family assessments and interventions and group practice issues will be reviewed.
392. **Cognitive Theories in Social Work Practice (3).** *Prerequisite: SW 330.* The process of how emotions work and how humans can learn to behave more rationally in dealing with anger, anxiety, and depression will be reviewed.
395. **Case Management (3).** *Prerequisite: SW 330.* This course will assist students to develop skills in assessment, consulting, teaching, modeling, and advocacy to enhance the optimum social functioning of clients. Attention will be paid to the ways in which social workers can utilize practice models to pursue policies, services, and resources in a variety of social service settings.
399. **Study Tour (3).** Topics, excursions, and requirements determined by department. May be duplicated for credit; however, only three (3) credits may be applied toward any major or minor. Infrequently scheduled and subject to minimum and maximum numbers. Advance deposit required.
- 441, 442, 443. **Independent Study (3) (3) (3).** *Prerequisites: Approval of instructor and department head required.* Students with advanced standing explore areas of special interest with individualized instruction from a faculty member. **(Social Work Majors only.)**
- 445, 446, 447. **Special Topics in Social Work (1) (1) (1).** *Prerequisites: SW 330 and permission from instructor and department head.* This course focuses upon a selected area of social work practice and/or education. The course capitalizes on a timely topic, research activity, or experimental alternative to existing courses, etc. Directed study. **(Social Work majors only)**
448. **Social Work Practice III (3).** *Prerequisites: All other courses for the BSW degree (except SW 449 and SW 450) and admission to Field Instruction Placement.* Generalist practice knowledge, values, and skills will be studied and developed for work with and in organizations, communities, and large social systems. Must be taken concurrently with SW 449 and SW 450.
449. **Field Instruction Placement (9).** *Prerequisites: All other courses for the BSW degree (except SW 448 and SW 450) and admission to Field Instruction Placement.* Internship in a social service agency for 450 hours of supervised practice. Must be taken concurrently with SW 448 and SW 450.
450. **Field Instruction Seminar (3).** *Prerequisites: All other courses for the BSW degree (except SW 448 and SW 449) and admission to Field Instruction Placement.* Class meets once a week. Must be taken concurrently with SW 448 and SW 449.

#### PLAN OF STUDY

#### BACHELOR OF SOCIAL WORK DEGREE (BSW)

*In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations.*

#### FRESHMAN YEAR

Fall	Spring
EH 101 .....3	EH 102 .....3
HY 101 or HY 201 (choose a sequence).....3	EH 141, Oral Communication.....3
BY 101 .....3	HY 102 or HY 202 (complete sequence) .....3
BY 103 .....1	BY 102 .....3
ART 202, MU 233, FL 101 or DR 242 (choose one) ..3	BY 104 .....1
SY 221, Intro to Sociology .....3	PSY 201, Principles of Psychology .....3
STU 101.....0	
16	16

## SOPHOMORE YEAR

Fall	Spring
Literature .....3	Literature .....3
MS 108, 110 or 112 (choose one) .....3	MS 204, Basic Statistics.....3
CS 201, Introduction to Information Technology ...3	General Electives .....5
PSC 100, Introduction to American Government ..3	EC 221 or 222, Micro or Macroeconomics (choose one).....3
FCS 215, HPE 212, MSC 115, or HPE 109 (choose one) .....3	SW 330, Introduction to Social Work.....3
15	17

## JUNIOR YEAR

Fall	Spring
SW Elective ..... 3	SW 381, HBSE II.....3
SW 360, Cultural Diversity .....3	SW 390, Pract. I.....3
SW 380, HBSE I ..... 3	SW Electives .....6
General Electives .....4	General Elective .....6
SW 350, Research .....3	
16	18

## SENIOR YEAR

Fall	Spring
SW 332, Social Policy ..... 3	<b>Final Semester</b>
SW 391, Practice II ..... 3	SW 448, Practice III .....3
SW Electives..... 6	SW 449, Field Placement .....9
General Elective ..... 3	SW 450, Field Seminar .....3
15	15

**TOTAL HOURS: 128 for the BSW Degree**

## SOCIOLOGY (SY) DESCRIPTION OF COURSES

221. **Introduction to Sociology (3).** Basic concepts, principles, and methods of sociological analysis are examined. Subject areas include culture, socialization, groups, communities, institutions, social inequality, and social change.
222. **Honors Introduction to Sociology (3).** Basic concepts, principles, and methods of sociological analysis are examined. Writing intensive, the primary goal is to teach students how to critically evaluate the world around them and their place in it using the sociological imagination.
223. **Social Problems (3).** *Prerequisite: SY 221 or 222.* American culture and society, including analytical treatment of problems of crime, urban living, mass media, mental illness, education, race, population, civil liberties, and others.
301. **Sociological Methods (3).** *Prerequisite: SY 221 or 222.* An introduction to the theory, design, collection, and analysis of data in sociology with particular focus given to various techniques by which sociological data are examined.
303. **Computers and Data Analysis (3).** *Prerequisite: SY 301 or MS 204 or CS 201.* Computers are used in the analysis of survey data. Commonly used software packages, such as SPSS, are employed.
304. **Social Statistics (3).** *Prerequisite: MS 100 or higher.* An introduction to the use of statistics in the social sciences, with an examination of measures of association and dispersion, scaling, probability, and tests of significance.
308. **American Society and Culture (3).** *Prerequisite: SY 221 or 222.* A sociological analysis of American society and culture, this course will examine the basic institutions in American society, such as family, education, religion, politics, and economy. It analyzes the roll of organizations in society and discusses the origin of American culture and the nature of popular culture.
309. **Sociology of Disability (3).** *Prerequisite: SY 221 or 222.* This course addresses the human responses to and facilitation of the concept of disability. The emphasis will be to connect the relationship among theory, epistemology, power relationships, and the social construction of disability. When the course is over students have a deeper understanding of social theory, the history of disabilities, and also how the concept of disabilities impacts lives today.
310. **Marriage and the Family (3).** *Prerequisite: SY 221 or 222.* Family structures; functions and dysfunctions of the family; intimate relationships; sexual behaviors and attitudes; the differences between the sexes; dating, courting, and mate selection; endogamy and exogamy; family life; children; and alternatives to traditional marriage.

313. **Social Psychology (3).** *Prerequisite: SY 221 or 222.* A survey of traditional and contemporary theories in social psychology regarding their applicability to everyday life, including such approaches as cognitive theory, reinforcement theory, symbolic interaction, and humanistic theories.
315. **Deviant Behavior (3).** *Prerequisite: SY 221 or 222.* Introduction to the social and cultural factors related to human deviance. Special attention is given to the study of various theories of deviant behavior.
320. **Criminology (3).** *Prerequisite: SY 221 or 222.* This course is an introduction to the study of criminology. Its focus is on the nature of crime, the nature and development of law, the criminal justice system, and theories of crime.
322. **Juvenile Delinquency (3).** *Prerequisite: SY 221 or 222.* Popular misconceptions; delinquency trends; police and juveniles; programs of prevention; detention centers; juvenile courts, probation; theories of causation; corrections.
324. **Social Stratification (3).** *Prerequisite: SY 221 or 222.* Causes, characteristics, and consequences of inequality are examined. Differences in wealth, power, and prestige are considered in the community, society, and between societies.
325. **Sociology of Organizations (3).** *Prerequisite: SY 221 or 222.* Simple and complex organizations are examined regarding their structures, functions, conflicts, and changes. Major theories are presented along with empirical studies of organizational behavior.
326. **Sociology of Education (3).** *Prerequisite: SY 221 or 222.* The school is examined as a major social institution and socializing agent in American society. The formal and informal structure of the school, its influence upon the responses to the wider community institutions, and primary functions of the school system are examined. Teacher-student relationships, the classroom as a social system, and equality of educational opportunity will be considered.
340. **Perspectives on Death and Dying (3).** *Prerequisite: SY 221 or 222.* An examination of the attitudes of differing cultures and subcultures toward death, which encourages students to supplement relevant readings by discussing personal attitudes toward death and dying. Current research in this topic will be explored by lectures, films, and readings. By better understanding death and dying, students can explore in this course opportunities for growth and for improving the quality of life. **(SY 340 is cross-listed with SW 371, but only one course can be counted for credit.)**
350. **Sociology of Disasters (3).** *Prerequisite: SY 221 or 222.* This course applies a sociological perspective to trace the study of disasters, emphasizing how social inequalities constitute varying degrees of risk and destruction throughout the pre, impact, and post disaster stages. This course examines social structure and social process as they interact with disaster conditions.
356. **Collective Behavior and Social Movements (3).** *Prerequisite: SY 221 or 222.* Crowds, mass behavior, fashions and fads, reform movements and revolutions are examined. Current examples are used to illustrate models and theories.
360. **Ethnic and Minority Group Relations (3).** *Prerequisite: SY 221 or 222.* This course focuses on relations between majorities and minorities, the conditions of minority life, and the structural, cultural, and interpersonal barriers that affect minorities.
362. **Global Immigration Patterns and Trends (3).** *Prerequisite: SY 221 or 222.* This course examines structural and individual immigration patterns and trends between country of origins and destination countries. The course examines how economic, political, and social forces lead to push and pull factors in both voluntary and forced migration routes. Course topics include illegal immigration, brain drain, refugees/asylum seekers, transnational migrants, etc.
364. **Medicine and Society (3).** *Prerequisite: SY 221 or 222.* This course is designed to provide a brief introduction to the major themes of and current trends concerning the social causes and consequences of health and illness. Topics of interest include exploration of the social facets of health and disease; the social functions of health organizations; and the social behaviors of health personnel and consumers.
365. **Drugs and Society (3).** *Prerequisite: SY 221 or 222.* This course presents a sociological framework for studying the ways in which societies both encourage and restrict the use of psychoactive drugs. The course will investigate the ways we think about alcohol, tobacco, prescription, and illegal drugs.
366. **Sociology of Religion (3).** *Prerequisite: SY 221 or 222.* The study of religion in its social and cultural contexts. Comparatively examines how religious beliefs, rituals, and practices exist in close relation to other aspects of society and culture, giving to human existence coherence and purpose.
367. **Sociology of Sexualities (3).** *Prerequisite: SY 221 or 222.* A study of how sexuality is perceived, defined, and experienced in the context of society. Topics include social norms, attitudes and beliefs about sexuality, public and private policies, as well as practices surrounding sexuality, and how sexuality is related to social institutions.
368. **Theories of Gender (3).** *Prerequisite: SY 221 or 222.* The course will examine gender theories about why women and men are unequal. It will also explore gender politics, the activities and strategies for remedying gender inequality. The course builds on and makes links to SY 324 (Social Stratification), SY 360 (Ethnic and Minority Group Relations), and SY 427 (Sociological Theory).
370. **Aging and Human Development (3).** An examination of aging in the United States. Primarily a sociological perspective but deals with the psychological and biological aspects of aging, as well as contemporary demographic, economic, and political trends. **(SY 370 is cross-listed with SW 370, but only one course can be counted for credit.)**

399. **Study Tour (3).** Topics, excursions, and requirements determined by department. May be duplicated for credit; however, only three (3) credits may be applied toward any major or minor. Infrequently scheduled and subject to minimum and maximum numbers. Advance deposit required.
410. **Sociology of Science (3).** *Prerequisite: SY 221 or 222.* This course examines the social institutions that support and constitute scientific activities, how people construct scientific knowledge through social interactions, and the nature and consequences of the relationships between science and industry, politics, religion and gender.
427. **Classical Social Theory (3).** *Prerequisites: SY 221 or 222, plus 12 additional hours of sociology courses, or permission of instructor.* An examination of the major trends in social thought up to WWII. (It is recommended that both SY 427 and SY 428 be taken for those interested in attending graduate school in sociology.)
428. **Contemporary Social Theory (3).** *Prerequisites: SY 221 or 222, plus 12 additional hours of sociology courses, or permission of instructor.* An examination of the major trends in social thought after WWII. (It is recommended that both SY 427 and SY 428 be taken for those interested in attending graduate school in sociology.)
- 441, 442, 443. **Independent Study (3) (3) (3).** *Prerequisites: Students seeking admission must have advanced standing and secure approval of instructor and head of department.* An opportunity for the student with advanced standing to explore areas of special interest.
452. **Aging Practicum (3).** *Prerequisite: SY 370.* Field observation and experiences in agencies or organizations engaged in planning or administering programs for older people or providing direct services to older people. Seminar analysis of these experiences.
460. **Sociology Internship (3).** *Prerequisites: Minimum cumulative GPA of 3.0; a minimum completion of 12 hours of sociology course work at Jacksonville State University; and instructor approval required.* This course provides students the opportunity to gain work/ career experience in service/ learning or business/ corporate settings.
- 480, 481, 482. **Advanced Seminar in Sociology (3) (3) (3).** *Prerequisites: SY 221 or 222, advanced standing, and instructor approval required.* An examination of current issues in sociology. The content of the course will vary each semester.
495. **Advanced Seminar in Aging (3).** *Prerequisites: SY 370, advanced standing, and instructor approval required.* An examination of current issues in aging.
499. **Senior Sociology Seminar (3).** *Prerequisites: SY 301, 427, senior status, and Sociology major.* A summary and reintegration of fundamental concepts in sociology. Career paths are also discussed.

#### PLAN OF STUDY

#### REQUIREMENTS FOR BACHELOR OF ARTS/BACHELOR OF SCIENCE MAJOR: SOCIOLOGY

*In addition to courses noted below, candidates for graduation must successfully complete all JSU Academic Regulations.*

#### FRESHMAN YEAR

Fall	Spring
EH Comp 101 .....3	EH Comp 102 .....3
HY 101 or 201* .....3	EH 141, Oral Communication.....3
Natural Science** .....4	HY 102 or 202* .....3
Fine Arts .....3	Natural Science** .....4
SY 221 or 222, Intro to Sociology .....3	SY 223, Social Problems .....3
STU 101.....0	
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16	16

#### SOPHOMORE YEAR

Fall	Spring
EH 201-204, or 219, 220, 231, 232 .....3	EH 201-204, or 219, 220, 231, 232 .....3
MS 108 or higher .....3	MS 204, Basic Statistics .....3
Social/Behavioral Science .....3	CS 201 .....3
GY 220 .....3	300+ Electives .....3
SY 300+ Elective .....3	SY 301, Sociological Methods .....3
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15	15

**JUNIOR YEAR**

Fall	Spring
SY 300+ Electives .....6	SY 300+ Elective .....3
300+ Electives .....3	Minor/Electives 300+ .....6
AN 224 .....3	Minor/Electives 300+ .....6
PSC 100 .....3	
_____	_____
15	15

**SENIOR YEAR**

Fall	Spring
SY 300+ Elective .....3	SY 499, Senior Seminar .....3
SY 427 or 428, Social Theory .....3	SY Elective 300+ .....3
Minor/Electives 300+ .....9	Minor/Electives 300+ .....7
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15	13

**TOTAL HOURS: 120**

\* A sequence of either HY 101 and 102 or HY 201 and 202 must be taken.

\*\* See advisor.