

# COLLEGE OF EDUCATION AND PROFESSIONAL STUDIES

John B. Hammett, Dean

## Accredited By:

National Council for Accreditation of Teacher Education  
Alabama State Department of Education  
Accreditation Council for Education in Nutrition and Dietetics  
American Association of Family and Consumer Sciences  
Association of Technology, Management, and Applied Engineering  
Accrediting Council on Education in Journalism and Mass Communications  
Council for Accreditation of Counseling and Related Educational Programs

## Member Of:

American Association of Colleges for Teacher Education  
Alabama Association of Colleges for Teacher Education

The mission of the College of Education and Professional Studies is to prepare students for successful careers in a variety of professions through innovative teaching methodologies in a learning-centered environment.

The uniqueness of the College is reflected through the diversity of programs and services. The programs in Communications, Education, Family & Consumer Sciences, Health, Physical Education, & Recreation, and Technology & Engineering are designed to assist students in developing skills in critical thinking/problem solving, innovation/creativity, communication, and collaboration.

The College of Education and Professional Studies offers programs that are nationally accredited. The department of Communications is accredited by the *Accrediting Council on Education in Journalism and Mass Communications* (ACEJMC). The department of Family and Consumer Sciences is accredited by the American Association of Family and Consumer Sciences (AAFCS). The dietetics program in Family & Consumer Sciences is accredited by the *Accreditation Council for Education in Nutrition and Dietetics* (ACEND). The department of Technology and Engineering is accredited by the *Association of Technology, Management, and Applied Engineering* (ATMAE). The counseling programs in the department of Educational Resources are accredited by the *Council for Accreditation of Counseling & Related Educational Programs* (CACREP). All teacher preparation and other school personnel programs (both initial and advanced) in the college are accredited by the *National Council for Accreditation of Teacher Education* (NCATE) and the *Alabama State Department of Education* (ALSDE). Students graduating from these professional education program benefit from JSU's associate membership in the National Association of State Directors of Teacher Education and Certification (NASDTEC), allowing transferability of teaching credentials.

Please consult the *Graduate Bulletin* for details on Master of Science (MS), Master of Science in Education (MSE) and Educational Specialist (EdS) degree programs offered through the college.

## HONESTY POLICY

### Cheating

- Cheating: 1st Offense** – A student who cheats on an examination (or any other graded work) will receive a failing grade (“F”) in the course.
- Cheating: 2nd Offense** – A student who cheats on an examination (or any other graded work) will be dismissed from the program of study, and will not be allowed to enroll in any other programs of study in the College of Education & Professional Studies at Jacksonville State University.

### Plagiarism

- Plagiarism: 1st Offense** – A student who plagiarizes will receive a failing grade (“F”) in the course. In addition, the student will be required to complete a remedial seminar on plagiarism. Failure to do so will result in an automatic 2nd Offense.

- 2. Plagiarism: 2nd Offense** – A student who plagiarizes a second time will be dismissed from the program of study, and will not be allowed to enroll in any other program of study in the College of Education & Professional Studies at Jacksonville State University.

#### **Exhibiting Unethical Disposition**

1. **Exhibiting Unethical Disposition: 1st Offense** – A student who exhibits an unethical disposition such as lying and/or falsifying documentation to anyone in a supervisory role during any school or school-related activity associated with coursework will receive a failing grade (“F”) in the course.
2. **Exhibiting Unethical Disposition: 2nd Offense** - A student who exhibits an unethical disposition such as lying and/or falsifying documentation to anyone in a supervisory role a second time will be dismissed from the program of study, and will not be allowed to enroll in any other program of study in the College of Education & Professional Studies at Jacksonville State University.

#### **NOTES:**

1. It should be noted that the occurrence of cheating or plagiarism is cumulative, i.e., it carries over to any other course taught in the College of Education & Professional Studies.
2. If a student wishes to appeal at any level of the honesty policy, she (he) is to follow the College of Education & Professional Studies’ grade appeal process.

#### **Grades Dismissal Policies (Teacher Education Programs)**

1. If a student receives consecutive grades of “D” or “F” (or any combination of “D” and “F” grades) in a “professional studies” course (or any course that requires eligibility to teacher education as a prerequisite), he (she) will be dismissed from the program regardless of his (her) grade point average (GPA). The only avenue for re-eligibility for TEP coursework is if the student employs the *academic forgiveness* policy removing one or more of the grades.
2. If a student accumulates more than three (3) grades of “D” or “F” (or any combination of “D” and “F” grades) in “professional studies” courses (or any course that requires eligibility to teacher education as a prerequisite), he (she) is dismissed from the program regardless of his (her) grade point average (GPA). The only avenue for re-eligibility for TEP coursework is if the student employs the *academic forgiveness* policy removing one or more of the grades.

#### **Grade Point Average (GPA) Dismissal Policy (Teacher Education Programs)**

Once an undergraduate student is enrolled in the teacher education program, he (she) must maintain a minimum grade point average (GPA) of 2.5 “overall”, 2.5 in the “professional studies” courses, and a 2.5 in the “teaching field” courses. If at any time during the program the GPA falls below the 2.5 minimum in any of the three areas, the student will be dismissed from the program. Re-eligibility for TEP coursework is possible if one of the following circumstances occurs:

- 1) The student receives *academic forgiveness*; and by doing so, the GPA increases to the 2.5 level or higher.
- 2) If the GPA drops below 2.5 in the “teaching field” or “overall” the student may reapply to teacher education once the GPA has increased to the 2.5 level or higher.

Note: The only avenue for re-eligibility for TEP coursework if the GPA drops below 2.5 in “professional studies” is if the GPA increases to 2.5 or higher as a result of *academic forgiveness*. A student will not be allowed to retake “professional studies” courses since he (she) must be eligible for TEP in order to enroll in those courses.

## EDUCATION PROGRAM REQUIREMENTS

Kelly W. Ryan  
Director of Teacher Education Services and  
Certification Officer

### I. Eligibility requirements for the Teacher Education Program

Teacher education programs are approved by the Alabama State Board of Education and are therefore subject to periodic revision resulting from changes in State certification requirements. Therefore, modifications in students' programs may become necessary at any time resulting in additions and/or deletions of program requirements. Issuance of Alabama teaching certificates is the legal responsibility of the Alabama State Department of Education. Universities cannot issue a professional certificate. To be eligible to apply for State certification, a student must complete an appropriate course of study at a College or University which has been approved by the State Board of Education to offer a program leading to the desired State certificate. When a student completes the course of study, the institution recommends to the State Department of Education that the appropriate certificate be issued.

To enroll for professional education courses required for teacher certification, the prospective teacher must be eligible for the College of Education and Professional Studies Teacher Education Program. Eligibility for this program is not automatic. To be eligible, the student must have met the minimum State Department of Education requirements as well as our university requirements. See Requirements for Admission section for university requirements.

Any questions that you may have regarding eligibility for the Teacher Education Program may be directed to the Director of Teacher Education Services, College of Education and Professional Studies, Ramona Wood Hall, Room 207.

At the beginning of the sophomore year, students may seek eligibility for teacher education by filing an application to a specific program. The application form is available on the Teacher Service Center website ([www.jsu.edu/edprof/tsc/eligibility\\_requirements.html](http://www.jsu.edu/edprof/tsc/eligibility_requirements.html)).

All the following criteria must be met:

1. The candidate must have earned a minimum of 54 semester hours of college credit in which at least 48 semester hours are in the general studies area.
2. The student must have earned an overall Grade Point Average of 2.50 based upon a 4.0 scale. After enrollment in the Teacher Education Program, the candidate is required to maintain a 2.50 grade-point average in all of the following areas:
  - a. Overall
  - b. In selected Teaching Field(s)
  - c. In professional education courses or a course that requires eligibility for teacher education. Failure to maintain the appropriate GPA in any one of the three areas will result in dismissal from the Teacher Education Program.
3. The candidate must have successfully passed the Alabama Educator Certification Testing Program (AECTP).
4. The candidate must have submitted three (3) written recommendations from professors in the general studies area.

Forms are available on the Teacher Service Center website  
[www.jsu.edu/edprof/tsc/eligibility\\_requirements.html](http://www.jsu.edu/edprof/tsc/eligibility_requirements.html).

5. The candidate must have successfully completed ED 300 Intro to Teacher Education.
6. Students taking ED 300 are required to purchase College LiveText, a complete development, management, and assessment solution specifically designed for colleges and universities. Additional information of College LiveText can be obtained at <http://college.livetext.com/college/index.htm>.
7. The candidate must have classroom observation at the level and in the teaching area in which he/she is seeking a degree or certification. A minimum of thirty hours of structured observation is required for all students and is completed during ED 300.
8. The candidate must satisfactorily complete an interview to provide information of the applicant's personality, interests, and aptitudes consistent with the requirements for a successful teaching career.
9. Read and sign a Statement of Understanding.
10. Provide documentation of a clear criminal background check conducted through the Alabama State Department of Education.

## **II. Graduation**

Requirements for recommendation for a degree in education:

1. The candidate must have met all general university and degree program requirements as outlined in the catalog in effect at the time of the student's eligibility for the Teacher Education Program.
2. The candidate must have maintained a 2.50 grade point average, in all applicable teaching field courses, and in all professional education courses at JSU, and/or all other institutions attended.
3. The candidate must have successfully completed the English Competency Examination.
4. The candidate must have successfully completed the CBASE Examination.
5. The candidate must have successfully completed the Major Field Test where applicable.

## **III. Application for State Certification**

Requirements for Alabama Certification:

1. Candidates are required to complete an application for Alabama Teacher Certification the last semester of course work (i.e., the internship semester). Instructions for completing the State certification form are found on the Teacher Service Center website. The appropriate fees (money order or cashier's check made payable to the Alabama State Department of Education), must be submitted with the State application for certification. The application for State certification, fee payment, and the candidate's transcript are forwarded to the State Department of Education. JSU cannot recommend any candidate for State certification that has not satisfied all Alabama and JSU requirements for admission to and completion of an approved program.
2. No grade below "C" in professional studies or teaching field may be used to meet State certification requirements.
3. The College of Education and Professional Studies does not certify teachers. The sole authority to certify teachers rests with the appropriate state agency. The College of Education and Professional Studies will recommend a candidate that has successfully completed an approved program within five years of completion. Recommendation after five years will require completion of the current program in place at the time of the request.
4. Anyone convicted of a felony and/or misdemeanor other than a minor traffic violation may be denied State certification or have State certification revoked by the State Superintendent. Questions may be directed to the Director of Teacher Education Services, College of Education and Professional Studies.
5. Teacher Education programs are approved by the Alabama State Board of Education and are therefore subject to periodic revision resulting from changes in State certification requirements. Therefore, modifications in a candidate's programs may become necessary.

**Lisa Light**  
**Director of Clinical Experiences**

## **I. Practicum Requirements**

The College of Education and Professional Studies requires that a candidate pursuing a degree in education must engage in practicum experiences in schools and communities prior to the internship semester. For further details, check with the instructor of the respective education course as to the practicum requirements. Personal professional liability insurance is required prior to beginning any clinical experience within the College of Education and Professional Studies at Jacksonville State University. Please see your course instructor for further details. (A minimum of 201 clock hours is required in all teacher education programs).

## **II. Internship Semester**

Students are required to make formal application for the Senior Internship Semester. Please note that student internship is offered only in the Fall and Spring semesters and must be completed the last semester before graduation. All Teacher Education Program eligibility requirements must be met prior to application for internship. Information meetings will be conducted fall and spring semesters. Contact Lisa Light in the Office of Clinical Experiences for more information.

Eligibility requirements for the Internship Semester:

1. The internship semester is to be completed during the student's last semester of residency at JSU.
2. The candidate must have completed all general studies, professional and teaching field courses.
3. The candidate must possess a 2.50 grade point average in all of the following areas:
  - a. Overall
  - b. In selected Teaching Field(s)
  - c. In professional education courses
4. The internship is a standalone experience. The intern shall not be enrolled in other courses during the normal operational hours of the schools where the internship is being completed.
5. The candidate must earn the grade of "C" or above in all teaching field and professional studies. If a grade below a "C" is earned, the candidate must upgrade the grade prior to student teaching.
6. The successful completion of the Alabama approved Praxis II exams (a passing score based on Alabama State Department of Education requirements) is required prior to the pre-service teaching internship. No pre-service teacher will be placed without the required official documentation of a passing score.
7. The intern must secure personal professional liability insurance for the entire internship semester and provide proof of said insurance to the Office of Clinical Experiences.

## DESCRIPTION OF COURSES

### EDUCATION (ED)

- 300. Introduction to Teacher Education (2).** This is an introductory course to teacher education and the CEPS Conceptual Framework. It is a requirement for all initial education candidates (Undergraduate Class B and alternative class A certifications). It is required for eligibility to teacher education. A 30-hour practicum is required. The course is to be taken after completing 30 semester hours of course work.
- 495. Internship in Education (6).** *Corequisite: ED 496; Prerequisites: All general studies, professional and teaching field courses, passing score on the Praxis II, and approval of academic advisor.* Supervised teaching in the public schools. Students are required to enroll in a program-specific section of ED 496. Consult the *Director of Clinical Experiences* for details.
- 496. Reflective Practices in Education (3).** *Corequisite: ED 495; Prerequisites: All general studies, professional and teaching field courses, passing score on the Praxis II exam(s), and approval of academic advisor.* This seminar course is intended to serve as a support mechanism and bridge between methods courses and the internship experience. Class activities involving readings, reflective journals, group discussions, and portfolio development will be used to facilitate individual growth and professional development.

## DEPARTMENT OF COMMUNICATION (COM)

**Accredited by the Accrediting Council on Education  
in Journalism and Mass Communications**

**217 SELF HALL**

**Department Head: Harbor**  
**Professor: Harbor, Ihator**  
**Assistant Professor: Chandler, Hedrick, McGrail**  
**Ayers Chair: Vacant**

The Communication curriculum focuses on developing well-rounded communication professionals capable of interpreting and meeting the challenges of an exciting, ever-changing industry. The Information Age requires professionals who are capable of gathering and packaging information for multi-media formats. Media professionals need a broad background and general education, as well as hands-on skills with new technologies. The ability to express oneself effectively is particularly important for students in a Communication program who hope to become working professionals in the various communications industries. Therefore, satisfactory speaking, writing, and computer skills are mandatory.

THE BACHELOR OF ARTS DEGREE IN COMMUNICATION is obtained by successfully completing: (a) 64 hours within the General Studies Curriculum, including specific university-required courses, CS 201, EH 141, six hours of a foreign language sequence, six hours of English literature sequence, six hours of history sequence, eight hours of a natural-science sequence [which includes two (2) three-hour lecture courses with two corequisite one-hour labs], hours from ART 202, DR 242, or MU 233, some electives, and (b) 64 hours including 45 in Communication courses, 18 or more hours in a minor field, and some electives. A major in Communication must include COM 200, 380, 390, 415, 491, and either 320 or 325. The remaining hours must be selected from a student's area of concentration – broadcasting, digital journalism, or public relations. The six hours in foreign languages must include a sequence of French, Spanish, or German. Students must maintain a minimum GPA of 2.0 and complete, with a minimum grade of "C", all Department of Communication courses required for the degree. Students who make a grade of "D" or "F" in a communication course may repeat the course only once. A second "D" or "F" in the same course will exclude a student from majoring or minoring in communication. All communication majors are required to take at least 72 of the 128 hours required for graduation outside the communication major. Fifty-three (53) of those 72 hours must be courses in liberal arts and sciences. See departmental check sheet for detailed curriculum. Each COM major should also complete a portfolio before graduation. To assess and improve its academic programs, the department must obtain periodic measurements of student learning. Such measures will include, among others, exit exam and exit interview.

A MINOR IN COMMUNICATION consists of completing all University requirements and a minimum of 21 hours in the Department of Communication. Required courses include 12 hours in COM 200, 205 or 315, 301 or 375, and either 320 or 325. The remaining nine hours must be selected from any other communication courses for which the student is qualified. Students cannot declare both a major and a minor in the Department of Communication.

Students enrolling in COM 404, 405, 406, 407, 408, 411 (the media workshop courses), 475 (directed study), or 491 (internship) must apply for admission into those courses **no later than** the pre-registration period preceding the semester in which the courses will be taken. Three media workshops--COM 404, 405, and 406--are required of all students in broadcasting and digital journalism, while the advanced media workshops – COM 407, 408, and 411 – are optional.

COM 491 – Internship – is a required course for all communication majors. Before registering for COM 491 a student must have satisfactorily completed specific courses in her/his area of concentration. The areas of concentration and their requirements for internship are:

- Broadcasting – COM 205, 301, 302, 404 and 405
- Digital Journalism – COM 315, 325, 375, 404 and 405
- Public Relations – COM 315, 330, 340, and COM 325.

## BACHELOR OF ARTS

### MAJOR: COMMUNICATION

#### FRESHMAN YEAR

Fall	
EH 101 English Composition .....	3
HY .....	3
MS 108 Exploring Mathematics .....	3
Fine Arts Elective .....	3
EH 141, Oral Communication.....	3
STU 101 .....	0
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15

Spring	
EH 102 English Composition .....	3
COM 200 Intro to Mass Com .....	3
HY .....	3
COM 205 Intro B/cast	
Writing .....	3
Natural Science .....	4
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16

**SOPHOMORE YEAR**

Fall	Spring
Literature .....3	Literature .....3
Natural Science .....4	Social/Behavioral Science .....3
Social/Behavioral Science .....3	COM 375 or 340 (or interest).....3
COM 302 or 315 .....3	
area).....3	
COM 404 Media Workshop-1 .....1	COM 301or 325 .....3
COM 330 Intro PR (or interest area).....3	COM 405, Media Workshop-2 .....1
	CS 201 Intro Info Tech.....3
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17	16

**SUMMER**

\* COM 491 – INTERNSHIP..... 3 hrs.

**JUNIOR YEAR**

Fall	Spring
COM 380, Com Law .....3	COM 345 SocialMedia .....3
COM 410 Media Features (or interest area) .....3	COM 320 (or interest area) .....3
FL 101 Foreign Language .....3	FL 102 Foreign Language .....3
COM 406 Media Workshop-3 .....1	General Elective/Minor .....3
General Elective/Minor .....3	COM 415, Mass Com Research .....3
CS 315 Intro Web Design.....3	
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16	15

**SENIOR YEAR**

Fall	Spring
COM 390, Com Ethics .....3	COM 420 or 440 or 470Capstone .....3
COM 385 Multimedia Des.....3	General Elective/Minor .....12
General Elective/Minor .....9	
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15	15

**TOTAL HOURS: 128**

*\*Following the above schedule, any student will be ready for internship upon completing the sophomore year*

**DESCRIPTION OF COURSES**

**COMMUNICATION (COM)**

200. **Intro to Mass Communication (3)**. *Prerequisite: EH 101 or EH 103.* A survey of the mass media and their Inter-relationship with each other and society. Emphasis will be placed on how mass communication functions in a multi-ethnic, gender-diverse environment. Includes perspectives on the history and role of professionals and institutions in shaping communication.

- 205. Intro to Broadcast Writing (3).** *Prerequisite: EH 101 or EH 103.* Basic writing for electronic media. Includes news, features, press releases and advertisements. Emphasis placed on how news, psa's and commercials are filtered through—and shaped by—multi-ethnic, gender-diverse writers.
- 301. Intro to TV Production (3).** *Prerequisites: COM 200 and EH 101 or EH 103.* Practical training in the fundamentals of audio and video production techniques pertaining to TV studio production, including various exercises in each production area. Includes introduction to producing and directing. Productions regarding diversity issues are required.
- 302. Intro to Audio Production (3).** *Prerequisites: COM 200 and 205.* Introduction to audio concepts and production methods. Includes recording, editing, control room technique, and radio station practice.
- 305. Advanced Audio Production (3).** *Prerequisite: COM 302.* Course affords students the opportunities to sharpen their skills in the recording, editing and mastering of audio for various media venues. Students will choose one of three “tracks” of Interest that permits them to: 1. Work alongside video production and editing students in a post-production environment; 2. Record and produce two tracks for a contemporary musical or spoken word CD; or 3. Record and produce a series of commercials of varying lengths for local merchants. Productions regarding diversity issues are required.
- 307. Media Literacy (3).** Learn analytical and critical skills to develop an awareness and understanding of the effects of media, including profit and emotional strategies, portrayals of diversity, stereotypes, love, myths, and other issues.
- 315. Intro to News (3).** *Prerequisites: EH 101 or EH103, EH 102 or EH104, COM 200.* Fundamentals of news reporting, writing and copy editing for digital media, dealing with modern news-room issues, including diversity, community involvement and convergence. Requires out-of-class assignments.
- 317. Editing (3).** *Prerequisites: COM 315 or COM 205.* Teaches skills for copyeditors and others in the processing of news, features and press releases. Students learn to question statements of fact, challenge assumptions, edit for length, taste, ethics, diversity, and libel while correcting errors of both grammar and style, according to the [Associated Press Stylebook](#).
- 320. Video Production and Editing (3).** *Prerequisites: COM 301.* Videography and editing of programs and/or announcements produced with portable equipment. Students produce, direct, write, shoot, and edit individual productions. Productions regarding diversity issues are required.
- 325. Publication Design (3).** *Prerequisite: COM 205 or 315.* Arranging and editing text, photographs, graphics and other materials from diverse sources for digital media.
- 330. Intro to Public Relations (3).** *Prerequisites: EH 101 or EH 103, COM 200.* Basic concepts of public relations, including history, theory, organization and ethics. Writing emphasized.
- 340. Public Relations Writing (3).** *Prerequisite: COM 330.* The development of professional public relations writing skills. Effective methods of conceptualizing, researching and presenting information to the relevant publics.
- 345. Social Media and Society (3).** *Prerequisites: EH 102 or EH 104.* What are social media, who uses them, who gains from them, and how are they transforming the media landscape and the way we communicate? Students will become familiar with a range of social media tools, analyze and discuss their uses and implications, and develop participation literacy. They will have the opportunity to explore both theory and practice of social media through writing assignments, interactive assignments, and course projects.
- 350. Announcing (3).** Fundamentals of voice and diction applied to audio and video media delivery. Includes commercials, news, interviews, and ad-lib announcing.
- 358. Communication Theory (3).** *Prerequisites: COM 200, Junior standing or instructor's permission.* Theories of the processes and effects of mass communication, including the discussion and analysis of research findings on race, gender, and ethnicity. Also deals with numbers for journalists—basic math and statistics for journalists.
- 375. Internet Production (3).** *Prerequisites: Junior standing and COM 205 or COM 315, or special permission of instructor.* This course focuses specifically on online journalism techniques; reporting, writing and editing

news/Information for Interactive media, particularly the Internet. Covers web usability, web design and HTML authoring while requiring both journalistic and computer skills.

- 380. Communication Law (3).** *Prerequisites: Junior standing and permission of instructor.* Study of legal systems of state and nation as related to media, including libel, privacy, copyright, access, contract, and First Amendment issues. Emphasis on gender, religion, ethnic diversity and sexual orientation issues as they apply to communication law.
- 385. Multimedia Design.** *Prerequisites: COM 301, COM 302, COM 325, and COM 375.*  
Students will practice and develop the skills necessary for planning and producing effective multimedia programs. They will be introduced to planning strategies, production techniques, and software involved in multimedia production. Each student will demonstrate basic proficiencies across a wide spectrum of multimedia. Emphasis will be on visual, audio and typographic design as well as the appropriateness of these elements for specific goals. The use of advanced electronic technologies will also be emphasized. Through a series of individual component assignments, students will develop a capstone multimedia presentation to be included in their portfolio.
- 390. Communication Ethics (3).** *Prerequisites: Junior standing and permission of instructor.* Ethical foundations of the media, including the interrelationships of the media, the public, and the government. Emphasis on gender, religion, ethnic and sexual orientation issues applicable to the communication profession.
- 400. Public Relations Case Studies (3).** *Prerequisite: COM 330.* The development of public relations practice skills based on the analysis of contemporary and historical case studies.
- 401. Media Advertising and Sales (3).** *Prerequisites: EH 101 or EH 103, and junior standing.* Theory and application of advertising, sales, and copywriting in the print and electronic media.
- 404. Media Workshop-1 (1).** *Prerequisite: Permission of instructor.* Supervised assignments demonstrating development of high-level competencies and skills in various areas of the media.
- 405. Media Workshop-2 (1).** *Prerequisite: COM 404 and permission of instructor.* Supervised assignments demonstrating development of high-level competencies and skills in various areas of the media.
- 406. Media Workshop-3 (1).** *Prerequisite: COM 405 and permission of instructor.* Supervised assignments demonstrating development of high-level competencies and skills in various areas of the media. This course can be taken concurrently with COM 407, if necessary.
- 407. Advanced Media Workshop-1 (1).** *Prerequisite or co-requisite: COM 406; and permission of instructor.* Advanced assignments demonstrating development of higher-level competencies and skills in various areas of the media.
- 408. Advanced Media Workshop-2 (1).** *Prerequisite: COM 407; and permission of instructor.* Advanced assignments demonstrating development of higher-level competencies and skills in various areas of the media. This course can be taken concurrently with COM 411.
- 410. Media Features (3).** *Prerequisites: COM 315 and permission of instructor.* Principles and practices of writing features. Requires out-of-class assignments.
- 411. Advanced Media Workshop-3 (1).** *Prerequisite or co-requisite: COM 408; and permission of instructor.* Advanced assignments demonstrating development of higher-level competencies and skills in various areas of the media.
- 415. Mass Communication Research (3).** *Prerequisites: COM 200, second semester junior in communication.* Pre- or co-requisite: MS 108. Fundamentals of research methodologies in mass communication. Prepares students to become familiar with, and develop the understanding and ability to apply research concepts to mass communication problems. Major topics include, among others, sampling, survey research, basic statistics, and diversity issues in mass communication research.
- 420. Advanced Reporting (3).** *Prerequisites: COM 315, 380, 390 and 415.* News gathering and writing for the digital media with emphasis on deadline and beat reporting. Copy editing is included as are modern newsroom issues, such as diversity and community involvement. This is a capstone course—a culminating experience that integrates coursework, knowledge, skills and other experiences in digital journalism. It serves as a venue for learning outcomes assessment.
- 425. Media Management (3).** *Prerequisites: Junior standing and permission of instructor.* Principles and practices for management of print and electronic media facilities.

- 440. Public Relations Campaign Management (3).** *Prerequisites: COM 330, 340, 380, 390, 400, and 415 .* The use of effective principles and techniques to plan, execute, and evaluate public relations campaigns. This is a capstone course, a culminating experience that integrates coursework, knowledge, skills and other experiences in public relations. Major subjects include diversity in communication and public relations issues. It serves as a venue for learning outcomes assessment.
- 470. Advanced Electronic News (3).** *Prerequisite: COM 320, 380, 390, 415.* Principles and practices for gathering, writing, reporting and producing news for electronic media. Requires out-of-class assignments. This is a capstone course—a culminating experience that integrates coursework, knowledge, skills and other experiences in broadcast journalism. Major subjects include diversity in communication. It serves as a venue for learning outcomes assessment.
- 475. Directed Study (3).** *Prerequisite: Permission of instructor.* Supervised study permitting students to pursue specific areas of interest in communication.
- 491 – Internship (3) – is a required course for all communication majors.** Before registering for COM 491 a student must have satisfactorily completed specific courses in her/his area of concentration. The areas of concentration and their requirements for internship are:  
 Broadcasting – COM 205, 301, 302, 404, and 405  
 Digital Journalism – COM 315, 325, 375, 404, and 405  
 Public Relations – COM 315, 325, 330, and 340

**DEPARTMENT OF CURRICULUM AND INSTRUCTION**

**312 RAMONA WOOD HALL**

**Interim Department Head: Bavonese**  
**Professors: Beard, Engley, Thornburg**  
**Associate Professors: Gardner, Hilber, King, Staubs**  
**Assistant Professors: Connor, Johns, , Troncale**  
**Instructors: Bavonese, Calhoun, Gamble, Owens**

The Department of Curriculum and Instruction offers Bachelor of Science in Education degrees in the areas of Elementary/Early Childhood Elementary/Collaborative Education and Collaborative Secondary. Upon program completion students will be eligible to apply for the Baccalaureate level Professional Teaching Certificate.

**Elementary/Early Childhood Education**

Students majoring in elementary/early childhood education are required to complete an approved program consisting of 129 hours leading to a Bachelor of Science Degree in Education. Students will enroll in the ECE Block classes (ECE 303, 304, 305, 306) before taking the Literacy Block (EED 312, 339, 342, 344) and the Content Block (EED 340, 341, 343, 362). Upon completion of this program, a student will be eligible to apply for the Baccalaureate level Professional Certificate which provides teacher certification for elementary (K-6) and levels preschool through grade three (P-3). Teacher Education Programs may be altered to meet changes in federal and Alabama State Department of Education regulations.

**ELEMENTARY /EARLY CHILDHOOD EDUCATION**

**FRESHMAN YEAR**

Fall	Spring
EH 101, Composition .....3	EH 102, Composition .....3
HY .....3	EH 141, Speech .....3
MS 112*, Algebra .....3	BY 102, 104 .....4
By 101, 103 .....4	MS* .....3

Soc/Beh Science .....	3
Fine Arts .....	3
STU 101 .....	0
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	19

Soc/Beh Science .....	3
HY .....	3
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	19

**SOPHOMORE YEAR**

Fall	
Literature in Sequence .....	3
TEC 201 .....	3
MS* .....	3
Science** .....	4
General Elective .....	3
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	16

Spring	
Literature in Sequence .....	3
FCS 352 Child Growth & Dev .....	3
Science** .....	4
ED 300, Intro to Teacher Educ .....	2
EIM 300, Intro to Educ Tech.....	3
SPE 300, Survey of Except Child .....	3
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	18

**JUNIOR YEAR**

Fall	
ECE 303, Intro Early Child .....	3
ECE 304, Early Literacy .....	3
ECE 305, Creative & Mental Dev .....	3
ECE 306, Practicum in ECE .....	3
EED 421, Effective Teaching .....	3
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	15

Spring	
EED 312, Children's Literature .....	3
EED 339, Integ Theory & Prac .....	3
EED 342, Teaching Reading .....	3
EED 344, Develop Lang Arts .....	3
SPE 421, Collaborative Teacher .....	3
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	15

**SENIOR YEAR**

Fall	
EED 340, Practicum in Content .....	1
EED 341, Teaching Math .....	3
EED 362, Teaching Science .....	3
EED 343, Teaching Soc Studies .....	3
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	16

Spring	
ED 495, Internship in Education.....	6
ED 496, Reflective Practices in Ed. ....	3
ECE 407, Assessment .....	3
EED 354, Reading .....	3
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	12

**TOTAL HOURS: 129**

Note: All professional education courses and selected teaching field courses must be completed at JSU and may not be transferred from another institution. Please check with your academic department for a complete list of these courses.

**ELEMENTARY/COLLABORATIVE EDUCATION (ECK)**

Students majoring in elementary/collaborative education are required to complete an approved program consisting of 129 hours leading to a Bachelor of Science Degree in Education. Students will enroll in the SPE Block classes (SPE 331, 382, 385, 416) before taking the Literacy Block (EED 312, 339, 342, 344) and the Content Block (EED 340, 341, 343, 362). Upon completion of this program, a student will be eligible to apply for the Baccalaureate level Professional certificate which provides teacher certification for elementary (K-6) and collaborative (K-6). Teacher Education Programs may be altered to meet changes in federal and Alabama State Department of Education regulations.

**ELEMENTARY/COLLABORATIVE EDUCATION**

**FRESHMAN YEAR**

Fall		Spring	
EH 101, Composition .....	3	EH 102, Composition .....	3
HY .....	3	EH 141, Speech .....	3
MS 112*, Algebra .....	3	BY 102, 104 .....	4
By 101, 103 .....	4	MS* .....	3
Soc/Beh Science .....	3	Soc/Beh Science .....	3
Fine Arts or FL .....	3	HY .....	3
STU 101 .....	0		
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	19		19

**SOPHOMORE YEAR**

Fall		Spring	
Literature in Sequence .....	3	Literature in Sequence .....	3
TEC 201, Microcomputers .....	3	EH 348 .....	3
MS* .....	3	MS* .....	3
Science** .....	4	Science** .....	4
PSY 222 .....	3	ED 300, Intro to Teacher Educ .....	2
	-----	SPE 300, Survey of Except Child .....	3
	16		-----
			18

**JUNIOR YEAR**

Fall		Spring	
SPE 331, Intro to Special Ed .....	3	EED 312, Children's Literature .....	3
SPE 385, Curr & Behavior .....	3	EED 339, Integ Theory & Prac .....	3
SPE 416, Assess of Teach/Learn .....	3	EED 342, Teaching Reading .....	3
SPE 382, Curr Methods for Dev Dis .....	3	EED 344, Develop Lang Arts .....	3
	-----	SPE 384, Curr & Strat for Learn .....	3
	12		-----
			15

**SENIOR YEAR**

Fall		Spring	
EED 340, Practicum in Content .....	3	ED 495, Internship in Education.....	6
EED 341, Teaching Math .....	3	ED 496, Reflective Practices in Ed. ....	3
EED 362, Teaching Science .....	3	SPE 405, Medical, Legal, Ethical .....	3
EED 343, Teaching Soc Studies .....	3		
SPE 422, Collaborative/Reg Ed .....	3		
EED 354, Reading Diagnosis .....	3		
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	18		12

**TOTAL HOURS: 129**

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\* Math approved courses.

\*\* Science from two different areas other than Biology.

Note: All professional education courses and selected teaching field courses must be completed at JSU and may not be transferred from another institution. Please check with your academic department for a complete list of these courses.

**COLLABORATIVE SECONDARY EDUCATION 6-12 (CLS)**

Students majoring in collaborative secondary education (6-12) are required to complete an approved program consisting of 128 hours leading to a Bachelor of Science Degree in Education. Upon completion of an approved program, students will be eligible to apply for the Baccalaureate level Professional Certificate that provides teacher certification in Collaborative Teacher (6-12). Teacher Education Programs may be altered to meet changes in federal and Alabama State Department of Education regulations.

**COLLABORATIVE TEACHER (6-12)**

**FRESHMAN YEAR**

Fall	Spring
EH 101, Composition .....3	EH 102, Composition .....3
Fine Arts or FL .....3	MS 112*, Algebra .....3
Natural Science .....4	Natural Science .....4
History .....3	Social/Beh Science or History .....3
Social/ Beh Science .....3	Social/Beh Science .....3
STU 101 .....0	
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16	16

**SOPHOMORE YEAR**

Fall	Spring
Literature in Sequence .....3	Literature in Sequence .....3
Wellness .....3	EH 141, Speech .....3
CS 201, Information Tech .....3	PSY 222 .....3
MS* .....3	ED 300 .....1
Science with lab** .....4	EIM 300 .....3
	SPE 300 .....3
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16	16

**JUNIOR YEAR**

Fall	Spring
SPE 331, Intro Lrn & Beh Prob .....3	SPE 311, Prog Mild Disabilities .....3
SPE 382, Curr Meth Dev Dis .....3	SPE 385, Curr & Beh Mgt.....3
SPE 384, Curr Strat for Learn/Beh Dis .....3	SPE 404, Prac Mild Beh Learn Dis.....3
SPE 403, Practicum Severe Dis .....3	SPE 418, Ind Liv/Career/Trans .....3
SPE 422, Collab with Reg Ed .....2	EH 348, Speech & Comp.....3
MS* .....3	MS* .....3
Elective ..... 2	
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19	18

**SENIOR YEAR**

Fall	Spring
SPE 405, Med/Eth/Legal SPE .....3	ED 495, Internship in Education.....6
SPE 416, Assessment ..... 3	ED 496, Reflective Practices in Ed. ....3
ESE 383, Reading Content Areas .....3	EED 405, Contemporary Issues .....3
ESE 304, Ed Methods & Tech ..... 3	
ESE 420, Teaching Science ..... 3	
or ESE 423 Teaching Math	
-----	-----
15	12
<b>TOTAL HOURS: 128</b>	

\* Math approved courses.

\*\* Science from two different areas other than Biology.

Note: All professional education courses and selected teaching field courses must be completed at JSU and may not be transferred from another institution. Please check with your academic department for a complete list of these courses.

**DESCRIPTION OF COURSES (ECE)**

- 303. Introduction to Early Childhood Education (3).** *Corequisites: ECE 304, 305, and 306.* An introduction to the historical, philosophical, and cultural aspects of early childhood education. Requires Teacher Education Program eligibility.
- 304. Early Literacy (3).** *Corequisites: ECE 303, 305, and 306.* Materials and methods of teaching literacy in early childhood. Foundations of literacy development including reading, writing, listening, spelling and speaking will be emphasized. Requires Teacher Education Program eligibility.
- 305. Creative and Mental Development (3).** *Corequisites: ECE 303, 304, and 306.* Early development of play, story telling, music, movement, and drama. Use of puppets, plays, and storytelling. Strategies for working with diverse populations; health, nutrition and safety issues for the P-3 child. Requires Teacher Education Program eligibility.
- 306. Practicum in ECE (3).** *Corequisites: ECE 303, 304, and 305.* Provides pre-service teachers with the opportunity to observe and apply theories and concepts in the classroom. Requires Teacher Education Program eligibility.
- 407. Assessment of Young Children (3).** Review of developmentally appropriate assessment for young children. Included will be reviews of portfolios, standardized tests, state required assessment, anecdotal records, observations, rating scales, and creation of teacher-made assessments. Requires Teacher Education Program eligibility.

\*NOTE: Many ECE course have practicum requirements. See an early childhood advisor for details.

**DESCRIPTION OF COURSES (EED)**

- 312. Children’s Literature (3).** *Prerequisite: FCS 352 with lab.* Evaluation of books for children, selection criteria, and the interests, needs and abilities of children emphasized. Taken with EED 339, 342, 344 and requires Teacher Education Program eligibility.
- 339. Integrating Theory/Practice (3).** *Prerequisite: FCS 352 and 353.* Provides prospective teachers an opportunity to observe, analyze, and apply concepts and theories in schools and classrooms. Taken with EED 312, 342, 344 and requires Teacher Education Program eligibility.
- 340. Practicum Content Area Block (3).** *Prerequisites: All core math and science, and social studies courses and the Literacy Block (EED 339, 312, 343, 244). Corequisites: EED 341, 343, and 362.* Provides preservice elementary teachers an opportunity to observe, analyze, and apply math, science, and social studies concepts and

theories in schools and classrooms. Requires Teacher Education program eligibility. This block should be taken after completion of the Literacy Block.

- 341. Mathematics for Children (3).** *Prerequisites: Math 112 and other core math courses. Corequisites: EED 340, EED 343 and EED 362.* Materials and methods in the teaching of elementary mathematics concepts and processes. Requires Teacher Education Program eligibility.
- 342. Teaching Reading (3).** *Corequisites: EED 312, 339, and 344.* Methods, materials, and research findings concerned with beginning reading instruction for the elementary grades. Requires Teacher Education Program eligibility.
- 343. Curriculum Integration in Teaching Social Studies (3).** *Prerequisite: All core social sciences and Literacy Block (EED 312, 339, 342, 344). Corequisites: EED 341, 362, and 340.* Methods and materials of teaching social studies in the elementary grades. Requires Teacher Education Program eligibility.
- 344. Developing Language Skills (3).** *Prerequisite: FCS 352 and 353.* Techniques and strategies for promoting communication skills among young learners, with emphasis on the interrelatedness of the language modes. Requires Teacher Education Program eligibility.
- 354. Reading Diagnosis (3).** *Prerequisite: EED 342.* Methods and materials in content area learning for the elementary grades with emphasis on study skills, diagnostic and remediation strategies, and evaluation of reading progress. Requires Teacher Education Program eligibility.
- 362. Science for Children (3).** *Prerequisites: FCS 352 and all core science courses. Corequisites: EED 340, 341, and 343* Methods, materials, laboratory demonstration, and organization of science concepts and processes taught in the elementary grades. Requires Teacher Education Program eligibility.
- 405. Contemporary Issues in Education (3).** *Prerequisites: Completion of Literacy Block classes, professional studies, and teaching field courses. This course is to be taken either the semester before student teaching or along with student teaching.* Provides understanding of professional responsibilities and provides awareness of the trends, issues, and problems which face teachers in the elementary classroom. Requires Teacher Education Program eligibility.
- 421. Effective Teaching Strategies (3).** Research findings and practices used by effective teachers that result in positive outcomes for learners, including academic learning, discipline, teaching/learning styles, and classroom management. Requires Teacher Education Program eligibility.

NOTE: Many EED courses have practicum requirements. See an elementary advisor for details.

#### DESCRIPTION OF COURSES (SPE)

- 300. Survey of Exceptional Children and Youth (3).** An introductory course to the field of exceptional children and youth.
- 311. Programming/Social Skill Development for Students with Mild Behavior and Learning Disabilities (3).** *Prerequisite: SPE 300.* An introduction to models used and services rendered to students with mental retardation, learning disabilities, and emotional/behavioral disorders, emphasizing educational implications. Requires Teacher Education Program eligibility.
- 331. Introduction To Learning and Behavioral Problems (3).** *Prerequisite: SPE 300.* Examines the processes and procedures of the collaborative classroom with focus on the administrative roles and responsibilities of the teacher. Requires Teacher Education Program eligibility.
- 382. Curriculum Methods for the Developmentally Disabled (3).** *Prerequisite: SPE 300.* Emphasis on definitions, characteristics, and teaching strategies appropriate to public and private placement facilities for students with developmental disabilities (birth to nine). Requires Teacher Education Program eligibility.
- 384. Curriculum and Strategies for Learning Behavior Disabilities (3).** *Prerequisite: SPE 300.* Designed to provide extensive and sophisticated approaches for planning instruction and motivating students with mental retardation, learning disabilities, and emotional/behavioral disorders. Requires Teacher Education Program eligibility.

- 385. Curriculum and Behavior Management (3).** *Prerequisite: SPE 300.* Examines effective inclusive teaching, behavior management, applied behavioral analysis, functional assessment and intervention in the collaborative classroom. Requires Teacher Education Program eligibility.
- 387. Sign Language and Deafness I (3).** Introduces major sign systems used by the deaf. Students acquire basic sign vocabulary of 750 words and idiomatic expressions.
- 388. Sign Language and Deafness II (3).** *Prerequisite: SPE 387 or permission of instructor.* Continues acquisition of sign vocabulary and focuses on development of ASL and Pidgin skills.
- 401. Physical Education for Exceptional Children (3).** Emphasis will be placed on activities of a recreational nature which may be used with the exceptional child. Requires a practicum experience.
- 403. Practicum in Low Incidence/Severe Disabilities (3).** *Prerequisites: SPE 300, 331, 382, and 385.* Directed experiences in observation and participation in special education classrooms for students with severe disabilities. Seminars will be held in conjunction with this course. Requires Teacher Education Program eligibility.
- 404. Practicum in Mild Behavior/Learning Disabilities (3).** *Prerequisites; SPE 300, 331, 384, and 385.* Designed to give classroom experiences to students in the area of mild disabilities. Facilities will include, when feasible, public school, mental health facilities and day care facilities. Requires Teacher Education Program eligibility.
- 405. Medical, Legal, & Ethical Aspects of SPE (3).** *Prerequisite: SPE 300.* Examination of trends and issues in special education and their impact on teachers and learners. Requires Teacher Education Program eligibility.
- 416. Assessment of Teaching/Learning (3).** *Prerequisite: SPE 300.* Introduction to assessment techniques appropriate in evaluating teaching/learning of exceptional students. Legal considerations and development of Individualized Educational Programs. Requires Teacher Education Program eligibility.
- 418. Transition to Adult Life (3).** *Prerequisite: SPE 300.* Provides a practical approach for developing functional living skills in home, school, and community for students with disabilities. Requires Teacher Education Program eligibility.
- 422. Collaboration with Regular Education (2).** The purpose of this course is to provide students with the opportunity to work together with general education teachers to meet the needs of diverse learners in the collaborative classroom setting. Requires Teacher Education Program eligibility.

NOTE: Many SPE courses have practicum requirements. See a special education advisor for details.

## DEPARTMENT OF EDUCATIONAL RESOURCES

304 RAMONA WOOD HALL

Department Head: Turner

Professors: J. Kiser, Morris, Webb

Associate Professors: Barns, W. Kiser, Turner, Wallace

Assistant Professors: Allen, McGahey, Wilson

The Department of Educational Resources offers service courses in educational foundations, educational psychology, and instructional media. In addition, the Department provides graduate programs in Counselor Education, Instructional Leadership and Library Media. Teacher Education Programs may be altered to meet changes in federal and Alabama State Department of Education regulations.

**EDUCATIONAL PSYCHOLOGY (EPY)  
DESCRIPTION OF COURSES**

- 429. Developmental Psychology (3).** *Corequisite: 430.* Covers stages of physical, cognitive, and social-emotional development in school-aged persons from a global and multicultural perspective. This course is a prerequisite for ESE 404 and ESE 484.
- 430. Developmental Psychology Lab. (0).** Provides a 25 clock-hour, Level II clinical experience, supervised through the Teaching/Learning Center, Ramona Wood Hall.

**INSTRUCTIONAL MEDIA (EIM) DESCRIPTION OF COURSES**

- 300. Introduction to Education Technology (2).** This course is designed to prepare professional educators to effectively develop and use technology rich activities in the student centered classroom. Activities will correlate to the eight learning outcomes and will include ISTE-NETS standards and state and national content standards.

**DEPARTMENT OF SECONDARY EDUCATION**

**206 RAMONA WOOD HALL**

**Department Head: TBA  
Professor: Notar, Akpan  
Associate Professor: Mitchell  
Assistant Professor: Kilgo, Sims, Windle  
Instructors:**

Students majoring in secondary education are required to complete an approved program consisting of 128 hours leading to a Bachelor of Science Degree in Education. Upon completion of an approved program, students will be eligible to apply for the Baccalaureate level Professional Certificate. Teacher Education Programs may be altered to meet changes in federal and Alabama State Department of Education regulations.

**TEACHER EDUCATION PROGRAMS OFFERED**

**SECONDARY EDUCATION P-12 PROGRAMS**

Music - Instrumental                      Music - Vocal/Choral                      Spanish

**SECONDARY EDUCATION 6-12 PROGRAMS**

Biology	Business and Marketing	Career Technologies
English Language Arts	General Science	Social Science
History	Mathematics	Family & Consumer Sciences

**BACHELOR OF SCIENCE IN EDUCATION**

The Secondary Education teaching fields (P-12 and Grades 6-12) require 128 semester hours in an approved plan of study. Specific plans of study for each teaching field are available from the Teacher Service Center, 207 Ramona Wood Hall.

STUDENTS MUST SEE THEIR ASSIGNED ADVISOR IN THE COLLEGE OF EDUCATION AND PROFESSIONAL STUDIES TO INSURE COMPLIANCE WITH THEIR APPROVED PLAN OF STUDY.

Note: All professional education courses and selected teaching field courses must be completed at JSU and may not be transferred from another institution. Please check with your academic department for a complete list of these courses.

## SECONDARY EDUCATION (ESE) DESCRIPTION OF COURSES

The curriculum in Secondary Education is for students seeking certification in grades 6-12.

- 304. Education Methods and Technology (3).** *Prerequisite: Teacher Education Program eligibility; Co-requisite: ESE 305.* This course exposes students to basic materials and methods of teaching at the secondary level as well as the introduction to and integration of technology in the classroom.
- 305. Secondary Practicum One and Tutoring Lab (1).** *Prerequisite: Teacher Education Program eligibility. Co-requisite: ESE 304.* A 45 clock-hour, supervised Level II clinical experience in Grades 6-12. Provides 25 clock-hours of tutoring supervised through the Teaching/Learning Center, Ramona Wood Hall and 20 clock-hours of small group instruction supervised through the Department of Secondary Education.
- 329. Adolescent Psychology (3).** *Prerequisite: Teacher Education Program eligibility.* Addresses the stages of physical, cognitive, and social-emotional development in middle and high school-aged persons from a global and multicultural perspective.
- 331. Foundations of Education (3).** *Prerequisite: Teacher Education Program eligibility.* A survey of American public education and an overview of current problems and issues in secondary education.
- 383. Content Literacy (3).** *Prerequisite: Teacher Education Program eligibility.* This course addresses both theory and practice associated with content literacy.
- 420. Teaching Mathematics (3).** *Prerequisites: ESE 304, 305, and ESE 329. Corequisites: The appropriate section of ESE 485.* Materials and methods of teaching mathematics at the secondary level. Requires Teacher Education Program eligibility. Offered in the Fall and Spring Semesters only.
- 421. Teaching Social Sciences (3).** *Prerequisites: ESE 304, 305, and ESE 329. Corequisites: The appropriate section of ESE 485.* Materials and methods of teaching history and other social sciences at the secondary level. Requires Teacher Education Program eligibility. Offered in the Fall and Spring semesters only.
- 422. Teaching Language Arts (3).** *Prerequisites: ESE 304, 305, and ESE 329. Corequisites: The appropriate section of ESE 485.* Materials and methods of teaching language arts at the secondary level. Requires Teacher Education Program eligibility. Offered in the Fall and Spring semesters only.
- 423. Teaching School Science (3).** *Prerequisites: ESE 304, 305, and ESE 329. Corequisites: The appropriate section of ESE 485.* Materials and methods of teaching natural and physical sciences at the secondary level. Requires Teacher Education Program eligibility. Offered in the Fall and Spring semesters only.
- 424. Foreign Language Methods (3).** *Prerequisites: ESE 304, 305, and ESE 329. Corequisites: The appropriate section of ESE 485.* Materials and methods of teaching foreign language at the secondary level. Requires Teacher Education Program eligibility. Offered in the Fall and Spring semesters only.
- 430. School Publications and Productions (3).** *Prerequisite: Teacher Education Program eligibility.* Processes of producing print and non-print school publications, especially newspapers and yearbooks.
- 444. Assessment of Teaching and Learning in Secondary Schools (3).** *Prerequisites: ESE 304, ESE 305, and 329. Also, 90% of all teaching field courses must be completed prior to enrollment in this course.* This course is an introduction to developmentally appropriate evaluation of teaching/learning at the secondary level. Requires Teacher Education Program eligibility.
- 454. Classroom Behavior (1).** *Prerequisites: All professional studies courses and teaching field courses must be completed prior to enrollment in this course. Co-requisite: ESE 495.* Models for establishing and maintaining classroom discipline. Requires Teacher Education Program eligibility.

- 481. Secondary Practicum for Collaborative Educators (6-12) (1).** *Prerequisite: Teacher Education Program eligibility. Co-requisite: ESE 404.* Students in this course are required to complete 50-hour supervised field experience in a middle or secondary school, performing as a paraprofessional.
- 485. Secondary Practicum Two (3).** *Prerequisites: ESE 304, ESE 305, and ESE 329. Corequisites: The appropriate special methods course ESE 420-424. Also, students are encouraged to have 90% of all teaching field courses completed prior to enrollment in this course.* A 150 clock-hour, supervised Level III clinical experience in Grades 6-12. Requires Teacher Education Program eligibility. Offered in the Fall and Spring Semesters only.
- 496. Contemporary Issues in Secondary Education (3).** *Prerequisites: All general studies, professional, and teaching field course must be completed prior to this course.* This course offers an in-depth study of critical contemporary issues facing teacher leaders in the secondary environment; classroom management, communication, professional ethics, diversity and evaluation. This course may be taken in conjunction with ED 495 and 496.

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\*\*Denotes secondary level methods courses. Students must be formally admitted to the College of Education and Professional Studies to take these courses.

## DEPARTMENT OF FAMILY AND CONSUMER SCIENCES

215 EAST MASON HALL

**Department Head: Goodwin**  
**Associate Professors: Goodwin, Roberts**  
**Instructors: Boggs, Frazier, Marsh, Townsel**

The Department of Family and Consumer Sciences offers two degree programs – a Bachelor of Science in Education Degree in Family and Consumer Sciences and a Bachelor of Science Degree with a major in Family and Consumer Sciences with five concentrations: Child Development, Dietetics, Human Sciences, Merchandising, and Hospitality and Culinary Management. Minors offered within the department include: Family and Consumer Sciences, Child Development, Fashion Merchandising, Nutrition and Foods, Hospitality and Culinary Management, and Human Science. The minor in Family and Consumer Sciences may be earned by completing 21 hours to include the following courses: FCS 122, 131 or 331, 215 or 322, 352 and 353, 355, 371, and 471. The department of Family and Consumer Sciences is accredited by the American Association of Family and Consumer Sciences

### BACHELOR OF SCIENCE IN EDUCATION

#### Teaching Field in Family and Consumer Sciences Education

A Bachelor of Science in Education degree in Family and Consumer Sciences Education is offered. Students who meet the requirements for this major will be eligible to apply for a baccalaureate level Professional Certificate. This certificate is acceptable for the teaching of Family and Consumer Sciences in the secondary schools of Alabama. Majors in Family and Consumer Sciences Education are also qualified for positions in Cooperative Extension Service, business, foodservice supervision, and other related fields. Teacher Education Programs may be altered to meet changes in federal and Alabama State Department of Education regulations.

### BACHELOR OF SCIENCE IN EDUCATION

#### Teaching Field: Family and Consumer Sciences Education

#### FRESHMAN YEAR

Fall	Spring
EH Comp 101 .....3	EH Comp 102 .....3
HY* .....3	EH 141, Oral Communication .....3
MS 110*, Finite Mathematics .....3	HY* .....3
FCS 122, Fund of Food Prep .....3	Soc/Behavioral Science * .....3

FCS 131, Clothing Construction .....	3
STU 101 .....	0
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	15

Fine Arts .....	3
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	15

**SOPHOMORE YEAR**

Fall	
Literature .....	3
Natural Science * .....	4
Soc/Behavioral Science * .....	3
FCS 215, Intro to Nutrition.....	3
Child* .....	3
FCS 232, Textiles .....	3
Resources	
3	
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	16

Spring	
Literature* .....	3
Natural Science * .....	4
ED 300, Intro to Education .....	2
SPE 300, Survey of Except.	
.....	
FCS 355, Family Life Ed.....	3
FCS 371, Mgt. of Family	
.....	
FCS 200, Seminar in FCS .....	2
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	17

**JUNIOR YEAR**

Fall	
FCS 325, Quantity Foods .....	3
Resources.....	3
FCS 331, Fash Fund & Merch .....	3
FCS 352, Child Development .....	2
FCS 353, Child Development Lab .....	1
ESE 383, Reading in Content Area .....	3
CTE.....	3
General Electives .....	3
CTE 350, Pro & Tech Comp for CTE .....	3
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	18

Spring	
FCS 371 Management of Family	
FIN 311 Personal Finance .....	3
CTE 362, Career Tech Ed .....	3
ESE 331, School and Society .....	3
CTE 444, Assessment of Learning for	
General Elective .....	3
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	18

**SENIOR YEAR**

Fall	
CTE 460, Practicum In CTE/FCS .....	3
CTE 461, Eff. Tching in CTE/FCS .....	3
FCS 454, Admin. Supv. Child Care .....	3
FCS 471, Family Housing & Inter. ....	3
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	12

Spring	
ED 495, Internship in Education.....	6
ED 496, Reflective Practices in Ed. ....	3
CTE 475 Functions of the Coordinator .....	3
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	12

**TOTAL HOURS: 120**

\*See General Studies Curriculum

Note: All professional education courses and selected teaching field courses must be completed at JSU and may not be transferred from another institution. Please check with your academic department for a complete list of these courses.

**BACHELOR OF SCIENCE  
MAJOR IN FAMILY AND CONSUMER SCIENCES**

**Concentration: Child Development**

The concentration in Child Development offers academic background and field experience necessary to understand and work with children and their families. The curriculum is designed to prepare individuals for Child Development-related careers in a variety of employment settings. Methods of delivery of the Child Development curriculum include both traditional and online versions. This concentration does not meet requirements for teacher certification.

A minor in Child Development may be obtained by completing 18 hours including: FCS 351 or 352/ 353, 355, 450, 452, 454, and 3 hours of FCS 463. The minor in Child Development provides students majoring in other fields the opportunity to develop an understanding of the nature of child development.

**Child Development - Traditional Classroom**

**FRESHMAN YEAR**

Fall		Spring	
EH Comp. 101 .....	3	EH Comp 102 .....	3
Natural Science/ Analysis* .....	4	EH 141, Oral Communication .....	3
MS 110*Finite Math .....	3	HY * .....	3
MSC 115, First Aid or HPE 109, Wellness .....	3	Natural Science/ Analysis * .....	4
Soc/Behavioral Science * .....	3	Fine Arts Elective * .....	3
STU 101 .....	0		
	-----		-----
	16		16

**SOPHOMORE YEAR**

Fall		Spring	
FCS 215, Intro to Nutrition .....	3	Literature* .....	3
FCS 355, Family Life Ed .....	3	CS 201*, Intro Information Tech .....	3
HY* .....	3	FCS 352, Child Growth & Dev .....	2
Literature* .....	3	FCS 353, Child Growth Lab .....	1
ACC 200, Principles of Acc. ....	3	Soc/Behavioral Sciences* .....	3
FCS 122, Fund Food Prep .....	3	SPE 300, Survey of Exceptional Child .....	3
	-----	FCS 200, Seminar in FCS .....	2
	18		-----
			17

**JUNIOR YEAR**

Fall		Spring	
FCS 350 Lifespan Human Dev .....	3	FCS 332 Soc. Cult. Aspects .....	3
FCS 360, Contemp Issues Human Dev .....	3	FCS 371, Mgt. Family Resources	
.....	3		
FCS 450 Curriculum Plan CD .....	3	FCS 454 Admin & Supervision CD	
.....	3		
FIN 311 Personal Finance Planning .....	3	FIN 457 Adv. Child Dev II .....	3
General Electives .....	6	FCS 459 Family Interaction .....	2
	-----	General Electives .....	6
	18		-----
			17

**SENIOR YEAR**

Fall		Spring	
FCS 453.....	3	FCS 460, Dir. Field Exp CD .....	6
FCS 456.....	3	MGT 301, Principles of Mgt .....	3
FCS 471.....	3	General Electives .....	3
General Electives .....	5		
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	14		12

**TOTAL HOURS: 128**

\*See General Studies Curriculum

**Child Development - Online Classroom**

**FRESHMAN YEAR**

Fall		Spring	
EH Comp. 101 .....	3	EH Comp 102. ....	3
Natural Science/Analysis* .....	4	EH 141, Oral Communication.....	3
MS 110* Finite Mathematics.....	3	HY* .....	3
MSC 115, First Aid or		Natural Science/Analysis* .....	4
HPE 109, Wellness.....	3	Fine Arts Elective* .....	3
Soc/Behavioral Science* .....	3		
STU 101 .....	0		
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	16		16

**SOPHOMORE YEAR**

Fall		Spring	
FCS 215, Intro to Nutrition.....	3	Literature .....	3
FCS 355, Family Life Ed.....	3	CS 201*, Intro Information Tech .....	3
HY* .....	3	FCS 351 The Developing Child.....	3
Literature*.....	3	Soc/Behavioral Sciences* .....	3
ACC 200, Principles of Acc .....	3	SPE 300, Survey of Exceptional Ch .....	3
FCS 122 Fun Food Prep .....	3	FCS 200, Seminar in FCS.....	2
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	18		17

**JUNIOR YEAR**

Fall		Spring	
FCS 332 Soc Cult Aspects. ....	3	FCS 471, Family Housing & Int .....	3
FCS 350 Lifespan Human Dev .....	3	FCS 454, Admin & Supervision .....	3
FCS 360, Contemp Issues Human .....	3	FCS 457, Adv Child Dev.....	3
FCS 450, Curriculum Plan CD .....	3	FCS 459, Family Interaction .....	3
FIN 311 Personal Finance .....	3	General Electives .....	6
General Electives .....	5		
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	17		18

**SENIOR YEAR**

Fall		Spring	
FCS 453, Parent-Child Rel. ....	3	FCS 460, Dir. Field Exp CD .....	6
FCS 371, Mgt. Family Resources .....	3	MGT 301, Principles of Mgt .....	3
FCS 456, Adv. Child Dev I .....	3	General	
Electives .....	5		
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	14		12

**TOTAL HOURS: 128**

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\*See General Studies Curriculum

**BACHELOR OF SCIENCE  
MAJOR IN FAMILY AND CONSUMER SCIENCES**

**Concentration: Human Sciences**

The concentration in Human Sciences offers the educational background needed for positions in a variety of human and community service positions including positions in extension service, business, social services, and community agencies. The concentration provides an overall discipline-based knowledge in all areas of Family and Consumer Sciences.

A minor in Human Sciences may be obtained by completing 20 hours in Family and Consumer Sciences courses including these required courses: FCS 355, FCS 339, 459, and FCS 464. For the remaining 9 hours students may choose from FCS 122, FCS 131, FCS 215, FCS 325, FCS 326, FCS 332, FCS 338, FCS 352/353, FCS 360, FCS 371, FCS 471. Pre-requisites will apply.

**FRESHMAN YEAR**

Fall		Spring	
EH Comp 101 .....	3	EH Comp 102 .....	3
HY* .....	3	EH 141, Oral Communication .....	3
MS 112*, Precalculus Algebra .....	3	HY* .....	3
FCS 122, Fund of Food Prep .....	3	PSY 201, Principles of Psychology .....	3
FCS 131, Clothing Construction .....	3	SY 221, Introduction to Sociology .....	3
STU 101 .....	0		
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	15		15

**SOPHOMORE YEAR**

Fall		Spring	
Literature* .....	3	Literature* .....	3
Natural Science * .....	4	Natural Science * .....	4
PE 109, Concepts Wellness .....	3	EC 221, Prin of Microeconomics .....	3
FCS 355 Family Life Ed .....	3	FCS 215, Intro to Nutrition .....	3
FCS 371, Resource Mgt .....	3	FCS 200, Seminar in FCS .....	2
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	16		15

**JUNIOR YEAR**

Fall	Spring
FCS 335, Visual Merchandising .....3	Fine Arts Elective* .....3
FCS 352, Child Growth & Dev .....2	FCS 327, Nutrition Life cycle .....3
FCS 353, Child Growth Lab .....1	FCS 332, Soc Cultural Aspects .....3
MGT 301, Principles Mgt .....3	FCS 350, Lifespan Dev .....3
FCS 331, Fashion Fund .....3	General Electives .....3
MKT 301, Principles of Marketing .....3	
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15	15

**SENIOR YEAR**

Fall	Spring
FCS 339, Prof Comm in FCS .....2	MGT 330, Entrepreneurship .....3
FCS 471, Family Housing & Interiors .....3	FCS 458 Research and Stats Methods in FCS
FCS .....3	FCS 464 Practicum in Human Sciences .....3
FCS 326 Food Safety and Sanitation .....3	SPE 300, Survey of the Except
FCS 338 Comm. Nutrition ..... 3	General Electives .....3
Child.....3	
General Elective.....1	
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12	15

**TOTAL HOURS: 120**

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\*See General Studies Curriculum

**BACHELOR OF SCIENCE  
MAJOR IN FAMILY AND CONSUMER SCIENCES**

**Concentration: Merchandising**

The concentration in Merchandising offers the educational background needed for positions as buyers, managers, and consultants for retail stores and related businesses in the area of Merchandising. A minor in Fashion Merchandising may be obtained by completing a minimum of 18 hours including: FCS 232, 331, 332, 335 and 6 hours from the following courses: FCS 131, 431, 432, 434 or 435.

**FRESHMAN YEAR**

Fall	Spring
EH Comp 101 .....3	EH Comp 102 .....3
Natural Science* .....4	EH 141, Oral Communication .....3
MS 112*, Precalculus Algebra .....3	HY* .....3
HY* .....3	Natural Science* .....4
FCS 131, Clothing Construction .....3	Fine Arts .....3
STU 101 .....0	
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16	16

**SOPHOMORE YEAR**

Fall	Spring
Literature* .....3	Literature* .....3
FCS 215, Intro Nutrition .....3	EC 222, Economics.....3
FCS 232, Textiles .....3	CS 201*, Intro to Info Tech .....3
EC 221, Economics .....3	ART 233, Design .....3
PSY 201, Psychology .....3	FCS 352, Child Growth & Dev.....2
General Electives .....3	FCS 353, Child Growth Lab .....1
	or FCS 350 Lifespan Hum. Devel.
	FCS 200, Seminar in FCS.....2
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18	17

**JUNIOR YEAR**

Fall	Spring
MKT 301, Principles of Mkt. ....3	FCS 332, Soc. Cult. Aspects .....3
MGT 301, Principles of Mgt .....3	FCS 371, Mgt. of Family Resources .....3
FCS 331, Fash Fund & Merch .....3	FCS 335, Visual Merchandising.....3
FCS 355, Family Life Ed ..... 3	MKT 378, Cons. Behavior .....3
General Electives. .... 3	MKT 394, Retailing .....3
	General Electives .....3
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15	18

**SENIOR YEAR**

Fall	Spring
FCS 471, Family Housing & Interiors .....3	FCS 430, Sr. Experiences in Merch .....3
FCS 458, Research/Stat Methods FCS ..... 3	FCS 431, Textiles App Global Econ .....3
MKT 388, Advertising .....3	FCS 432, History of Fashion.....3
FCS 435, Merch Planning Analysis .....3	FCS 434, Apparel Design .....3
MKT 361, Sales/Sales Force Mgt .....3	General Electives .....1
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15	13

**TOTAL HOURS: 128**

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\*See General Studies curriculum

**BACHELOR OF SCIENCE  
MAJOR IN FAMILY AND CONSUMER SCIENCES**

**Concentration: Dietetics**

The Didactic Program in Dietetics at JSU is accredited by the Accreditation Council for Education Nutrition and Dietetics, 216 W. Jackson Blvd., Chicago, IL 60606-6995, (312) 899-5400. Following graduation, each student must complete a supervised practice program accredited by the Commission on Accreditation for Dietetics Education of the American Dietetic Association to qualify for the national examination to become a registered dietitian.

Students must apply for admission to the Dietetics program before the last semester of the sophomore year. To be admitted to the Didactic program, students must complete all courses listed for the freshman and sophomore years with a minimum grade point average of 3.0 on a 4.0 scale and must maintain this average to remain in the program. Students must also earn a minimum grade of "C" on all science based courses. Students may be admitted conditionally for one semester. Application forms and additional information may be obtained online or from program advisors.

A minor in Nutrition and Foods may be obtained by completing 18 hours including FCS 122, 322 and 338 and 9 hours from the following courses: FCS 326, 327, 337, 420, 421, 427, 429, or 448.

### FRESHMAN YEAR

Fall	Spring
EH Comp 101 .....3	EH Comp 102 .....3
MS 112, Precalculus Algebra .....3	EH 141, Oral Communication .....3
FCS 122, Fund of Food Prep .....3	MS 204, Basic Statistics .....3
BY 101, 103 .....4	PSY 201 or SY 221 .....3
Fine Arts Elective .....3	EC 222, Prin of Macroeconomics .....3
STU 101.....0	
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16	15

### SOPHOMORE YEAR

Fall	Spring
Literature* .....3	Literature* .....3
HY* .....3	HY* .....3
CY 115, Concepts of Gen Chem I .....4	CY 116, Concepts of Gen Chem II .....4
FCS 322, Normal Nutrition .....3	FCS 355, Family Life Ed .....3
FCS 332 Soc. Cult. Aspects .....3	FCS 352, Child Growth & Dev .....2
	and FCS 353, Child Growth Lab.....1
	or FCS 350, Lifespan Hum Dev.....3
	FCS 200, Seminar in FCS.....2
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16	18

### JUNIOR YEAR

Fall	Spring
BY 263, Human Anatomy & Phys I .....4	BY 264, Human Anatomy & Phys. II .....4
FCS 323, Experimental Foods .....3	FCS 337, Meth Nutrition Assessment .....3
FCS 301, Career Paths in Dietetics .....1	FCS 327, Nutrition in Life Cycle .....3
MGT 301, Principles of Mgt. ....3	FCS 338, Community Nutrition..... 3
FCS 325, Quantity Foods .....3	FCS 339, Prof Comm in FCS.....2
FCS 326 Food Safety & Sanitation .....3	
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17	15

### SENIOR YEAR

Fall	Spring
EH 322, Technical Writing.....3	FCS 422, Foodservice Mgt .....3
FCS 371, Management of Family Resources ..... 3	FCS 421, Medical Nutrition Therapy .....3
FCS 429, Adv Nutr Metab .....3	FCS 448, Alternative Med.....3
FCS 420, Med Nutrition Therapy I ..... 3	FCS 471, Family Housing & Interior. ....3
HPE 400, Exercise Phys .....3	FCS 458, Research/Stats Methods.....3
General Electives .....1	
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16	15

**TOTAL HOURS: 128**

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\*See General Studies curriculum

**BACHELOR OF SCIENCE**  
**MAJOR IN FAMILY AND CONSUMER SCIENCES**  
**Concentration: Hospitality and Culinary Management**

The concentration in Hospitality and Culinary Management offers academic back-ground and field experience in the hospitality industry and is planned for individuals interested in management positions in culinary arts. A minor may be earned in Hospitality and Culinary Management by completing 18 hours including FCS 132, 323, 325, 422, and six hours from the following courses: FCS 122, 326, 428, 438 or 441.

**FRESHMAN YEAR**

Fall	Spring
EH Comp 101 .....3	EH Comp 102.....3
HY* .....3	EH 141, Speech.....3
BY 101, Intro to Bio .....3	BY 102, Intro to Bio.....3
BY 103, Bio Lab .....1	BY 104, Bio Lab .....1
FCS 122, Fund of Food Prep .....3	FCS 132, Culinary Science .....3
SY 221 Intro to Soc.....3	Fine Arts Elective* .....3
STU 101 .....0	
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16	15

**SOPHOMORE YEAR**

Fall	Spring
Literature* .....3	Literature* .....3
MS 112, Precalculus Algebra .....3	MS 204 Basic Statistics .....3
EC 221, Economics .....3	EC 222, Economics .....3
FIN 301 Business Finances .....3	FCS 200, Seminar in FCS .....2
FCS 325, Quality Food Production ..... 3	FCS 215 Intro to Nutrition.....3
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15	14

**JUNIOR YEAR**

Fall	Spring
MGT 301, Principles of Management .....3	MGT 385 Human Resource Management .3
ACC 200, Principles Financial Acc .....3	FCS 371, Resource Mgt .....3
FCS 323, Experimental Foods .....3	ACC 210, Principles Managerial Acc .....3
FCS 326 Food Safety & Sanitation .....3	FCS 352 Child Growth & Dev .....2
FCS 223 Science of Service Qual .....2	and FCS 353 Child Growth Lab.....1
	or FCS 350 Lifespan Hum Dev .....3
	FCS 332 Social Cultural Aspects of
Apparel ..... 3	
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14	15

**SENIOR YEAR**

Fall	Spring
FCS 335, Visual Merchandising .....3	FCS 471, Family Housing & Interiors .....3
FCS 355, Family Life .....3	FCS 428, International Foods .....3
FCS 422, Foodservice Mgt .....3	FCS 441, Practicum in Hosp & Tour .....3
MKT 301, Principles of Marketing .....3	FCS 338, Principles of Culinary Mgt.....3
FCS 441, Practicum in Hosp and Tour.....3	CBA 390 Operations Mgt.....3
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15	15
<b>TOTAL HOURS: 120</b>	

**DESCRIPTION OF COURSES**

- 122. Fundamentals of Food Preparation and Meal Management (3).** Lecture and laboratory experiences. Introduction to the study of food, including selection, principles of preparation, evaluation of food products, survey of the market place and management of resources in the preparation and serving of food.
- 131. Clothing Construction (3).** Personal appearance, selection, and care of clothing and textiles. Fundamentals of clothing construction, pattern selection, and fit. Application of fundamentals through garment construction.
- 132. Culinary Science (3).** *Prerequisite: FCS 122.* An introduction to the study of commercial food production including fundamental cooking techniques, knife and hand-tool skills, flavor affinities, and visually pleasing culinary presentations.
- 200. Seminar in Family and Consumer Sciences (2).** The philosophical base of family and consumer sciences and issues affecting the profession. Emphasis on managing the challenges of living and working in a diverse global society. Preparation of students for success including résumé writing, professional presentations, and the development of communication skills.
- 215. Introductory Nutrition (3).** Introduction to the principles of nutrition including nutrient requirements for individuals of all ages.
- 223. The Science of Service Quality (2).** Introduction to the service quality concept, particularly as it relates to the hospitality industry. Emphasis on theories and principles of service quality.
- 232. Textiles (3).** Textile fabrics, their composition, structure and use along with weaves, finishes and care. Natural and manmade fibers used in clothing.
- 301. Career Paths in Dietetics (1).** *Prerequisite: Junior Status.* A survey of the career paths in dietetics and the process for entering the field.
- 322. Normal Nutrition (3).** *Prerequisite: 4 hours of Chemistry or Biological Science.* Application of fundamentals of human nutrition including various nutrients and requirements for different individuals and groups.
- 323. Experimental Foods (3).** *Prerequisite: FCS 122.* Lecture and laboratory experiences. The advanced study of food including the physical and chemical properties of food and factors affecting the quality of standard food products.
- 325. Quantity Food Production (3).** *Prerequisite: FCS 122.* Lectures and laboratory experiences. Introduction to institutional preparation and service of food, equipment operation and maintenance, menu planning and recipe standardization.
- 326. Food Safety and Sanitation (3).** *Prerequisites: 4 hours of Natural Sciences and FCS 122.* An introduction to food borne illnesses, safe food preparation practices, micro-biological considerations for specific foodservice systems, and regulatory laws for foodservice establishments.
- 327. Nutrition in the Life Cycle (3).** *Prerequisite: FCS 322.* How age, growth and normal development influence the nutritional requirements for individuals at each stage of the life cycle.

- 330. Braids, Trims, and Stitchery (3).** The use of individuality in creating unusual trims and accessories for dress.
- 331. Fashion Fundamentals and Merchandising (3).** *Prerequisite: sophomore status.* Organization and structure of the fashion industry with emphasis on retailing, sources of information, and fashion trends.
- 332. Social Cultural Aspects of Apparel (3).** Overview of social, psychological, and cultural aspects of apparel
- 333. Family Clothing (3).** *Prerequisite: FCS 131.* Planning, selection, purchasing and care of family clothing. Emphasis on construction of children's clothing.
- 334. Flat Pattern Design (3).** *Prerequisite: FCS 131.* Application of fundamental principles and procedures in the development and use of the master pattern. Applying flat pattern principles to designing patterns, fitting and altering commercial patterns.
- 335. Visual Merchandising (3).** *Prerequisite: sophomore status.* Design principles applied to various display needs. Investigation and practical experience in planning, executing, and evaluation of 2-D and 3-D displays for commercial, educational, and other needs.
- 337. Methods of Nutritional Assessment (3).** *Prerequisite: FCS 322.* An introduction to the profession and practice of dietetics, emphasizing assessment techniques, feeding modalities, and counseling methods.
- 338. Community Nutrition (3).** *Prerequisite: FCS 215 or 322.* Application of community nutrition strategies to health care problems and exploration of approaches useful in the design and evaluation of these programs.
- 339. Professional Communications in FCS (2).** The fundamentals of communication skills essential for professions related to the field of Family and Consumer Sciences. Emphasis on materials and methods necessary for satisfactory communication.
- 350. Lifespan Human Development (3).** Overview of physical, intellectual, social, and emotional development from conception to death. Practical application of information to life stages and outside observations will be included.
- 351. The Developing Child (3).** Development and guidance of young children from infancy through the school years. Not available to students in the traditional Child Development concentration. Includes 12-15 hours of field experience.
- 352. Child Growth and Development (2).** Development and guidance of young children from infancy through middle childhood.
- 353. Child Growth and Development Laboratory (1).** Taken concurrently with FCS 352 lecture; two hours per week. Methods of guidance of young children.
- 355. Family Life Education (3).** A study of family relations and the skills needed to function within the family setting. Emphasis on interpersonal communication, conflict resolution, and parenting.
- 360. Contemporary Issues in Human Development (3).** Current topics in the areas of child and/or family development.
- 371. Management of Family Resources (3).** *Prerequisite: sophomore status.* Focuses on the practical application of management principles for use of resources to maximize individual and family quality of life.
- 420. Medical Nutrition Therapy I (3).** *Prerequisites: FCS 337 and FCS 322.* The study of relationships between diseases and nutrition. Application of assessment techniques and alternative feeding modalities in medical/nutritional case studies.
- 421. Medical Nutrition Therapy II (3).** *Prerequisite: FCS 420.* A continuation of Medical Nutrition Therapy I. The study of relationships between diseases and nutrition. Application of assessment techniques and alternative feeding modalities in medical/nutritional case studies.
- 422. Foodservice Management (3).** *Prerequisites: FCS 122 and MGT 301.* Management techniques and functions in foodservice with emphasis on personnel management, materials management and systems approach to foodservice management.
- 425. Practicum in Foodservice Management (3).** *Prerequisite: Approval of instructor.* May be duplicated for credit for a total of six (6) semester hours. Practical experiences in foodservice management obtained in approved institutions. Must be planned in advance.

- 427. Special Problems in Family and Consumer Sciences (3).** *Prerequisites: Senior Status and approval of instructor.* May be duplicated for credit for a total of six (6) semester hours. Individual work in selected area.
- 428. International Foods (3).** Lecture and laboratory experiences. Study of food practices, preparation and service of dishes typical of countries around the world.
- 429. Advanced Nutrition Metabolism (3).** *Prerequisites: FCS 322, BY 263 and PE 400.* Normal nutrition metabolism and an overview of aberrations in normal metabolism as affected by diseases.
- 430. Senior Experiences in Fashion Merchandising (3).** *Prerequisites: Senior Status and approval of instructor.* Field experiences in merchandising. May be duplicated for credit for a total of six (6) semester hours.
- 431. Textiles and Apparel in the Global Economy (3).** *Prerequisites: FCS 331 and Junior Status.* Role of fiber, textile and apparel industries in the international economy. Current issues related to fashion merchandising in the global economy.
- 432. History of Fashion (3).** *Prerequisite: junior status.* The development of fashion throughout history, with an investigation of the influence of sociological, psychological, economic and cultural factors.
- 434. Apparel Design (3).** *Prerequisites: FCS 131, 232 and 331 and junior status.* Overview of the fashion design and manufacturing process. Examination of fashion illustration, methods of apparel design, creation of an apparel line and practical experiences in apparel design.
- 435. Merchandise Planning and Analysis (3).** *Prerequisites: MS 110 or MS 112, FCS 331 and Junior Status.* Application of principles of merchandise management and retail buying to the merchandising of textiles and apparel and accessories.
- 438. Principles of Culinary Management (3).** *Prerequisites: FCS 122, 132 and MGT 301.* The study of the evolution of the hospitality industry and how it is currently stratified. Organizational systems, management and career opportunities/salaries will be examined. Hospitality service management is viewed from both a consumer and business perspective.
- 441. Practicum in Hospitality and Tourism (3).** *Prerequisite: Approval of instructor.* Practical culinary and tourism experiences in the hospitality industry. May be duplicated for a total of six (6) credit hours.
- 448. Alternative Medicine and Dietary Supplements (3).** *Prerequisites: FCS 322 and Junior Status.* Advanced study of the safety and efficacy of herbal and dietary supplements; mechanisms of action including potential drug/herbal/nutrient interactions; evaluation and regulation of health claims.
- 450. Curriculum Planning in Child Development (3).** *Prerequisites: Junior Status and FCS 351 or FCS 352/353.* Planning a developmentally appropriate curriculum for a child care program. Includes 12-15 hours of field experience.
- 452. Overview of Advanced Child Development (Infancy through 5 years) (3).** *Prerequisites: Junior Status and FCS 351 or 352/353.* Study of the biological and environmental influences on development from infancy through age 5. Examine theories, research, the family context, school context, and the impact of diverse family experiences. Not available to students in the traditional or on-line Child Development concentrations. . Includes 12-15 hours of field experience.
- 453. Parent-Child Relations (3).** *Prerequisites: Junior Status and FCS 351 or FCS 352/353.* Study of the dynamics and reciprocal nature of parent-child relationships, including internal and environmental forces that impact interactions between parents and children.
- 454. Administration & Supervision in Child Care Programs (3).** *Prerequisites: Junior Status, FCS 351 or FCS 352/353, FCS 450 and approval of instructor.* The planning, implementing, and evaluating of a child care program. . Includes 12-15 hours of field experience.
- 456. Advanced Child Development I (Infant and Toddler Development) (3).** *Prerequisites: Junior Status and FCS 351 or 352/353.* Study of the biological and environmental influences on development from infancy through toddlerhood. Examine theories, research and the family context. . Includes 12-15 hours of field experience.
- 457. Advanced Child Development II (Ages 3 through 5).** *Prerequisites: Junior Status and FCS 351 or FCS 352/353.* Study of the biological and environmental influences on development from toddlerhood through age five. Examine theories, research, the family context, school context, and the impact of diverse family experiences.

- 458. Research and Statistical Methods in FCS (3).** *Prerequisite: Junior Status.* Methods and basic skills for conducting, analyzing, and interpreting research.
- 459. Family Interaction (3).** *Prerequisites: Junior Status and FCS 351 or 352/353.* Study of various theories of family interaction, with an emphasis on understanding the family as a system.
- 460. Directed Field Experiences (6).** *Prerequisites: Completion of general studies, professional and concentration courses, and approval of academic advisor.* Supervised experiences in a community child care setting with observation and participation in approved programs for children.
- 463. Directed Field Experiences for Child Development Minors (3).** *Prerequisites: Completion of general studies, professional and concentration courses, and approval of academic advisor.* Supervised experiences in a community child care setting with observation and participation in approved programs for children. Not available to students in the traditional or online Child Development concentrations.
- 464. Practicum in Human Sciences (3).** *Prerequisite: This practicum must be taken the last semester of the student's senior year and after completion of All content coursework.* Field observation and experiences in agencies or organizations that provide services in a Human Sciences field. Practicum site must be approved by the advisor.
- 471. Family Housing and Interiors (3).** *Prerequisite: Junior Status.* An overview of present-day family housing needs including location, space needs, house construction and selection, alternative housing, and home furnishings.
- 472. Creative Expressions in Home Furnishings (3).** Selection and use of household fabrics and materials including the design and construction of home furnishings and accessories.

#### CAREER/TECHNICAL EDUCATION (CTE)

- 350. Professional and Technical Competency for Career and Technical Education (3).** Technical skills needed to teach, organize, and maintain career and technical programs in middle and secondary schools. Emphasis on professional skills needed to secure and maintain employment In CTE.
- 362. Principles of Career and Technical Education (3).** History, philosophy, trends, and issues of career and technical education programs in middle and secondary schools. Includes needs assessment, curriculum planning, and implementation of programs.
- 444 Assessment of Learning for Career and Technical Education. (3).** This course is an introduction to developmentally appropriate evaluation of teaching and learning at the secondary level for Career and Technical programs. *Requires Teacher Education Program eligibility.*
- 460. Practicum in CTE (3).** Directed experiences including observation and participation in career technical education programs and classrooms. Provides an opportunity to observe and apply theories and concepts. Seminars will be held in conjunction with this course. *Must be taken concurrently with CTE 461. Requires Teacher Education Program eligibility.*
- 461. Effective Teaching of CTE (3).** Planning and implementation of instructional methods and materials in secondary career technical education, nutrition education and community education programs. Field experiences. *Must be taken concurrently with CTE 460. Requires Teacher Education Program eligibility.*
- 475. Functions of the Coordinator (3).** Technical skills needed to teach, organize, and maintain Cooperative Education and work-based learning programs in secondary schools. Job-shadowing of a COOP teacher required.

**DEPARTMENT OF HEALTH, PHYSICAL  
EDUCATION, AND RECREATION**

**308 MATHEWS COLISEUM**

**Interim Department Head: Mabrey**  
**Professors: Chandler, Hammett, Thornburg**  
**Associate Professor: Andrews, Hill**  
**Instructors: Crosson, Galloway, Gilbert, Mabrey, Rains**

The Department of Health, Physical Education and Recreation offers 3 degrees: a Bachelor of Science in **Education** degree in Physical Education, a Bachelor of Science degree in **Recreation Leadership**, and a Bachelor of Science degree in **Exercise Science & Wellness**.

Students who meet the requirements for education degree programs will be eligible to apply for a Baccalaureate level Professional Certificate and will be qualified to teach Physical Education in grades P through 12. Of the 128 hours required to attain the Bachelor of Science in Education degree, the **Physical Education** major must successfully complete a minimum of 50 hours of departmental courses including HPE 109, 232, 303, 355, 356, 357, 362, 381, 400, 404, 405, 406, 409, 410, 411, 415, 460, 462, and one hour of aquatics (HPE 150, 151, 153, or 155). HPE 303, 355, 356, and 357 must be taken prior to teacher education eligibility. Twenty-three hours of professional studies courses are also required, which include: ED 300, EIM 300, SPE 300, ESE 331, and internship consisting of HPE 482, ED 495 and ED 496. ED 300, EIM 300, SPE 300 must be taken prior to teacher education eligibility. Physical Education (teacher education) degree requirements may be altered to meet changes in federal and Alabama State Department of Education regulations. Physical Education (teacher education) degree requirements may be altered to meet changes in federal and Alabama State Department of Education regulations.

Two non-teaching Bachelor of Science degrees are offered with a major in **Recreation Leadership** or **Exercise Science & Wellness**.

Students majoring in **Recreation Leadership** may attain this degree by completing a general Recreation Leadership core consisting of REC 221, 271, 310, 311, 312, 360, 420, 430, 435 and HPE 232, and 9 hours of REC/HPE electives from the following courses: REC 275, 301, HPE 403, 421, 422, four hours of elective activity courses, 12 hours of approved management courses, and 18-24 hours from a chosen minor and general electives.

Students majoring in **Exercise Science & Wellness - Human Performance concentration** may attain this degree by completing the 41 hour general studies curriculum; the 44 hour core curriculum (HPE 232, 272, 301, 350, 362, 375, 400, 405, 406, 415, 440, 441, 450 and 465); 13 hours of required pre-professional courses (HPE 109, HPE 165, HPE 209, FCS 215 or 322, and MS 204 or SY 304); a minimum of 22 hours from a chosen minor and general electives; and obtaining an advisor approved National Certification from the American College of Sports Medicine or National Strength and Conditioning Association. Students will be classified as "ESW\_HPND\_Undecided" majors prior to assessment for upper level ESW courses.

At the beginning of the sophomore year, students may seek assessment into the ESW upper level courses by filing an application for the ESW- Human Performance track in the Health, Physical Education, and Recreation (HPER) Office. The application is available in the departmental office.

Program applications are reviewed and candidates are assessed once per year. All the following criteria must be met:

1. The candidate must have earned a minimum of 48 semester hours of college credit.
2. The candidate must have earned an overall Grade Point Average of 2.50 based upon a 4.0 scale to include all pre-professional courses with a C or better. After assessment to the upper level ESW courses (Human Performance Concentration), the student is required to maintain a minimum 2.50 grade-point average. A student may repeat a professional course only once. Failure to maintain the appropriate GPA will result in dismissal from the ESW Program. Reinstatement to the ESW Program is at the discretion of the ESW committee.
3. The candidate must have submitted three (3) written recommendations from professors in the general studies area.
4. The candidate must satisfactorily complete an interview to provide information of the student's personality, interests, and aptitudes consistent with the requirements for a successful ESW career.

Students majoring in **Exercise Science & Wellness - Clinical concentration** may attain this degree by completing the 41 hour general studies curriculum; the 45 hour core curriculum (HPE 109, 165, 209, 232, 272, 350, 362, 375, 400, 405, 406, 415, 440, 441, 450 and 465); 16 hours of required pre-professional courses (BY 263, BY 264, CY 105/107, and CY 106/108); 16 hours to complete a Biology minor (BY 322, BY 323, BY 373, and 4 additional hours of advisor approved Biology courses); 14 hours of additional requirements (PHS 201/203, PHS 202/204, MS 204 or SY 304, and NU 130); and obtaining an advisor approved National Certification from the American College of Sports Medicine or National Strength and Conditioning Association. Students will be classified as “ESW\_CLN\_Undecided” majors prior to assessment into the ESW program.

At the beginning of the sophomore year, students may seek assessment into the ESW upper level courses by filing an application for the ESW- Clinical track in the Health, Physical Education, and Recreation (HPER) Office. The application is available in the departmental office.

Program applications are reviewed and candidates are assessed once per year.

All the following criteria must be met:

1. The candidate must have earned a minimum of 48 semester hours of college credit.
2. The candidate must have earned an overall Grade Point Average of 3.25 based upon a 4.0 scale to include all pre-professional courses with a C or better. After assessment to the ESW upper level courses (Clinical Concentration), the student is required to maintain a minimum 3.25 grade-point average. A student may repeat a professional course only once. Failure to maintain the appropriate GPA will result in dismissal from the ESW Program. Reinstatement to the ESW Program is at the discretion of the ESW committee.
3. The candidate must have submitted three (3) written recommendations from professors in the general studies area.
4. The candidate must satisfactorily complete an interview to provide information of the student’s personality, interests, and aptitudes consistent with the requirements for a successful ESW career.

The Department offers both a minor and a concentration in coaching. The **Minor in Coaching** consists of 18 hours of coursework including 8 hours of core courses from HPE 232, 391, and 405 where the student must earn a grade of C or better. The student must complete 7 hours of sports pedagogy seminars, HPE 320-331, and a practicum in coaching, HPE 394, as the last course in the minor. The **Concentration in Coaching** totals 12 semester hours and consists of 8 hours to include a grade of C or better in HPE 232, 391, and 405, and 4 semester hours of sports pedagogy seminars (HPE 320-331).

A **Minor in Community Health** is available for students majoring in non-teaching degree fields. A minimum of 18 hours is required which must include HPE 212, 312, 315, 318, 360, and 420.

A **Minor in Exercise Science** is available for students who are pursuing a non-teaching degree. The requirements for a minor in Exercise Science and Wellness are a minimum of 21 hours, to include the following required courses consisting of 12 semester hours; HPE 109, 165, 362, 400, 415. The students must choose 9 hours of electives from the following courses: HPE 272, 405, 406, 440.

A **Minor in Recreation Leadership** is available for students majoring in non-teaching degree fields. A minimum of 21 hours which must include REC 221, 271, 310, 430; 6 hours selected from REC 275, 301, 302, 312, 420 and 3 hours from HPE 111, 113, 114, 140, 141, 158, and 164.

A **Minor in Sport Management** comprises 18 hours that shall include REC 430, 440, 445, 450, 455, and HPE 301. A Minor in Sport Management is available for students majoring in non-teaching degree fields and may not be taken in conjunction with a major in Recreation Leadership.

## BACHELOR OF SCIENCE IN EDUCATION

### Teaching Field: Physical Education (P-12)

#### FRESHMAN YEAR

Fall	Spring
EH 101, Comp I .....3	HPE 303, Foundations in HPE .....2
History * ..... 3	BY 101 and 103L.....4
Lit/Humanities/Fine Arts* .....3	History/Literature Sequence* .....3
HPE 109, Concepts of Wellness ..... 3	Soc/Behavior Science* .....3
Soc/Behavior Science* ..... 3	EH 102, Comp II .....3

Approved Electives .....	3
STU 101.....	0
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	18

HPE 232, Sport Safety & First Aid.....	2
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	17

**SOPHOMORE YEAR**

Fall	
Lit/Humanities/Fine Arts* .....	3
MS 110, Finite Mathematics .....	3
EH 141, Oral Communications .....	3
CS 201, Intro to Information Tech .....	3
BY 263, Anatomy & Phys .....	4
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	16

Spring	
HPE 355, Meth Individ/Dual Sports .....	3
HPE 356, Meth Team Sports .....	3
HPE 357, Meth Lifetime Activities .....	3
EIM 300, Intro to Ed Technology.....	2
SPE 300, Survey of the Ex Child .....	3
ED 300, Intro to Teacher Education .....	2
HPE 362, Kinesiology .....	3
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	19

**JUNIOR YEAR**

Fall	
Aquatics Elective .....	1
HPE 404, Tests & Measurements PE .....	3
HPE 405, Scientific Prin Conditioning .....	3
HPE 415, Biomechanics .....	3
Literature/Humanities .....	3
Approved Electives .....	3
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	16

Spring	
HPE 381, Adapted PE .....	2
HPE 400, Exercise Physiology .....	3
HPE 406, Physical Fitness Techniques .....	3
HPE 460, Motor Dev .....	2
Approved Electives.....	6
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	16

**SENIOR YEAR**

Fall	
ESE 331, Found of Education. ....	3
HPE 409, Meth Teach PE K-5 .....	3
HPE 410, Meth Teach PE 6-12 .....	3
HPE 411, Practicum PE P-12 .....	3
HPE 462, Best Practices in PE .....	3
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	15

Spring	
HPE 482, Seminar in PE .....	3
ED 495, Internship in Education.....	6
ED 496, Reflective Practices in Ed. ....	3
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	12

**TOTAL HOURS: 129**

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\*See General Studies curriculum

Note: All professional education courses and selected teaching field courses must be completed at JSU and may not be transferred from another institution. Please check with your academic department for a complete list of these courses.

**BACHELOR OF SCIENCE**

**MAJOR: EXERCISE SCIENCE AND WELLNESS-Human Performance Concentration**

**FRESHMAN YEAR**

Fall	Spring
EH 101, Comp I .....3	EH 102, Comp II .....3
History/Social/Behavioral Science* ..... 3	EH 141, Oral Communications .....3
BY 101 and 103 .....4	HPE 165, Intro ESW .....1
HPE 109, Concepts of Wellness .....3	HPE 209, Essentials of Human
Performance .....3	
Minor/Approved Electives.....1	Lit/Humanities/Fine Arts* .....3
STU 101.....0	History/Social/Behavioral Science .....3
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14	16

**SOPHOMORE YEAR**

Fall	Spring
Lit/Humanities/Fine Arts* .....3	Lit/Humanities/Fine Arts* .....3
History/Social/Behavioral Science* ..... 3	History/Social/Behavioral Science* .....3
MS 112*, Pre-Calculus Algebra.....3	Basic Statistics Elective** .....3
Minor/Approved Electives.....3	HPE 232, Sport Safety & First Aid.....2
BY 263, Anatomy & Physiology .....4	HPE 272, Basic Athletic Training.....3
.....	FCS 215 or 322 .....3
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16	17

**JUNIOR YEAR**

Fall	Spring
HPE 301, Fitness Management .....3	HPE 350, Intro to Personal Training .....3
HPE 362, Kinesiology .....3	HPE 375, Therapeutic
Exercise/Modalities .....3	
HPE 400, Exercise Physiology .....3	HPE 406, Physical Fitness Techniques .....3
HPE 405, Scientific Principles of Conditioning .....3	HPE 415, Biomechanics .....3
Minor/Approved Electives .....3	Minor/Approved Electives .....6
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15	18

**SENIOR YEAR**

Fall	Spring
Minor/Approved Electives .....6	Minor/Approved Elect.....3
HPE 440, Fitness Testing .....3	HPE 441, Design of Wellness Programs ....3
HPE 450, Research in ESW .....3	HPE 465, Practicum in ESW .....6
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12	12

**TOTAL HOURS: 120**

\*See General Studies curriculum \*\*SY 304, PSY 340, or MS 204

**BACHELOR OF SCIENCE**  
**MAJOR: EXERCISE SCIENCE AND WELLNESS - Clinical Concentration**

**FRESHMAN YEAR**

Fall		Spring	
EH 101, Comp I .....	3	EH 102, Comp II .....	3
History/Social/Behavioral Science* .....	3	History/Social/Behavioral Science .....	3
BY 101 and 103L .....	4	HPE 165, Intro ESW .....	1
HPE 109, Concepts of Wellness .....	3	HPE 209, Essentials of Human	
Performance .....	3		
CY 105/107 .....	4	BY 102 and 104, General Biology & Lab .....	3
STU 101 .....	0	CY 106 and 108, General Chemistry &	
Lab	3		
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	17		18

**SOPHOMORE YEAR**

Fall		Spring	
Lit/Humanities/Fine Arts* .....	3	Lit/Humanities/Fine Arts* .....	3
EH 141, Oral Communications .....	3	History/Social/Behavioral Science* .....	3
MS 112*, Pre-Calculus Algebra .....	3	Basic Statistics Elective** .....	3
PSY 201, Principles of Psychology .....	3	PSY 222, Human Development .....	3
HPE 272, Basic Athletic Training .....	3	PHY 201 & 203, College Physics and Lab ..	4
HPE 232, Sport Safety & First Aid .....	2	BY 263, Anatomy & Physiology I .....	4
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	17		20

**JUNIOR YEAR**

Fall		Spring	
BY 322, Genetics .....	4	HPE 350, Intro to Personal Training .....	3
HPE 362, Kinesiology .....	3	BY 323, Microbiology .....	4
HPE 375, Therapeutic Exercise/Modalities .....	3	HPE 400, Exercise Physiology .....	3
BY 264, Anatomy & Physiology II .....	4	HPE 415, Biomechanics .....	3
PHY 202 & 204L, College Physics and Lab .....	4	HPE 405, Scientific Prin of Conditioning ..	3
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	18		16

**SENIOR YEAR**

Fall		Spring	
BY 373, Cell Biology .....	4	NU 130, Medical Terminology .....	3
BY Minor Elective .....	4	HPE 441, Design of Wellness Programs .....	3
HPE 450, Research in ESW .....	3	HPE 465, Practicum in ESW .....	6
HPE 440, Fitness Testing .....	3		
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	14		12

**TOTAL HOURS: 132**

\*See General Studies curriculum \*\*SY 304, PSY 340, or MS 204

**BACHELOR OF SCIENCE  
MAJOR: RECREATION LEADERSHIP**

**FRESHMAN YEAR**

Fall	Spring
EH 101 .....3	EH 102 .....3
MS 110 .....3	Humanities/Fine Arts .....3
History/Social/Behavioral Science .....3	History/Social/Behavioral Science .....3
HPE 109, Concepts of Wellness .....3	Natural Science .....4
Humanities/Fine Arts .....3	EH 141 .....3
STU 101 .....0	
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15	16

**SOPHOMORE YEAR**

Fall	Spring
Humanities/Fine Arts .....3	History/Social/Behavioral Science .....3
History/Social/Behavioral Science ..... 3	REC 271 Recreation Games .....2
REC 221, Intro to REC.....3	Minor Hours.....3
Natural Science .....4	Minor Hours.....3
HPE 232, Sport Safety & First Aid.....2	Minor Hours.....3
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15	14

**JUNIOR YEAR**

Fall	Spring
REC 310, Camping and Outdoor Ed .....3	REC 312, Org. Adm. Camp Programming3
REC 420, Youth Dev Leadership .....3	Recreation Electives .....3
REC 450, Rec and Sport Facility Mgmt.....3	REC 430, Foundations of Rec Sports Man.3
Minor Hours.....3	REC 360, Challenge Course Programs .....3
Minor Hours.....3	Activity Course Electives .....3
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15	15

**SENIOR YEAR**

Fall	Spring
Recreation Electives .....3	REC 435, Internship.....6
Minor Hours.....3	REC 440, Legal and Ethical Aspects.....3
Minor Hours.....3	REC 455, Sports Finance .....3
Minor Hours.....3	
REC 311, Recreation for the Aged .....3	
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15	12

**TOTAL HOURS: 132**

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\*See General Studies curriculum

## DESCRIPTION OF COURSES

### GENERAL SERVICE COURSES (HPE)

104. **Aerobics and Fitness (3).** The course is designed to provide students with various aerobically based activities for overall fitness and health of the body.
109. **Concepts of Wellness (3).** Study of basic concepts of wellness including: nutrition, cancer prevention, addictions, and STDs, and physical fitness including principles of exercise, stress management, weight control, and the management of emergencies, accidents, and injuries.
111. **Beginning Hiking (1).** Basic skills in hiking including planning, clothing, map reading, safety, types of hikes and hiking trips (TBA).
113. **Mountain Biking (1).** Basic skills in off-road cycling.
114. **Bicycling (1).** An introductory course in the lifetime activity of cycling. A 10 hour lab is required. The safety, repair, riding, and value are covered.
115. **Beginning Fitness (1).** Introduction to basic physical fitness activities.
116. **Body Shaping (3).** An introduction to the basic principles of fitness as they relate to fatty weight loss and muscular development.
117. **Introduction to Yoga (1).** An introduction course in the ancient system of mind-body exercise that offers benefits including increased flexibility, greater strength, and improved concentration.
118. **Beginning Bowling (1).** Basic skills in bowling. Elective credit only, cannot be used to satisfy HPER requirements.
119. **Beginning Fencing (1).** Basic skills in foil fencing. Elective credit only, cannot be used to satisfy HPER requirements.
120. **Introduction to Pilates, (2).** The purpose of this course is to provide an Introduction to Pilates consisting of safety considerations, breathing techniques, and exercises for upper and lower body strength and endurance, core strength and endurance, and flexibility.
121. **Beginning Weight Training (2).** Basic skills in weight training. Elective credit only, cannot be used to satisfy HPER requirement.
122. **Beginning Tennis (1).** Basic skills in tennis. Elective credit only, cannot be used to satisfy HPER requirement.
123. **Beginning Racquetball (1).** Basic skills in racquetball. Elective credit only, cannot be used to satisfy HPER requirement.
124. **Beginning Golf (1).** Basic skills in golf. Elective credit only, cannot be used to satisfy HPER requirement. Student pays all expenses.
125. **Beginning Archery (1).** Basic skills in archery. Elective credit only, cannot be used to satisfy HPER requirement.
126. **Beginning Volleyball (1).** Basic skills in volleyball. Elective credit only, cannot be used to satisfy HPER requirement.
127. **Net Games (1).** Basic skills in badminton, pickle ball, and deck tennis. Elective credit only, cannot be used to satisfy HPER requirement.
128. **Table Games (1).** Basic skills in table tennis and billiards. Elective credit only, cannot be used to satisfy HPER requirements.
130. **Tap/Clogging Dance (1).** Basic skills in tap and clogging dancing. Elective credit only, cannot be used to satisfy HPER requirement.
132. **Folk/Square Dance (1).** Basic skills in folk and square dancing. Elective credit only, cannot be used to satisfy HPER requirement.

134. **Social/Ballroom Dance (1).** Basic skills in social and ballroom dancing. Elective credit only, cannot be used to satisfy HPER requirement.
136. **Ballroom, Fox Trot (1).** Introduction to Foxtrot, Slow Waltz, Viennese Waltz, and American Tango dances. Elective credit only, cannot be used to satisfy HPER requirements.
137. **Ballroom, Latin (1).** Introduction to Latin dance steps, such as merengue and salsa. Elective credit only, cannot be used to satisfy HPER requirements.
138. **Swing (1).** Instruction in "swing" dance steps, such as swing, jitterbug, rock and roll. Elective credit only, cannot be used to satisfy HPER requirements.
139. **Line Dancing (1).** Performing dance movements in unison to music and consists of patterned foot measurements that are performed to a number of counts in sequence. Several popular tunes will be used. Also, two-step will be introduced.
140. **Alpine Skiing (1).** Basic skills in alpine skiing. Six hours of dry-land instruction and three days (20 hours) of on-snow instruction. Students pay all expenses.
141. **Alpine Skiing II (1).** *Prerequisite: PE 140 or permission of instructor.* Advanced skills in alpine skiing. Four hours of dry-land instruction and three days (20 hours) of on-snow instruction. Students pay all expenses.
142. **Zumba (2).** The purpose of this course is to provide an introduction to Zumba consisting of safety considerations, techniques, and Zumba exercises for health-related fitness.
143. **Beach Volleyball (1).** Basic instruction in beach volleyball. Elective credit only, cannot be used to satisfy HPER requirements.
145. **Team Sports Skills (2).** The purpose of this course is to provide experiences that will lead to the development of team sports skills. In addition to skills acquisition, the course will focus on the development of the knowledge and positive dispositions associated with team sports activities. Students will be expected to achieve an intermediate level of skill in specified team sports.
150. **Beginning Swimming (1).** The adaptation of the water and basic strokes of swimming. Non-swimmers only.
151. **Aqua Aerobics (3).** Low impact exercises performed in the medium of water.
152. **Angling (1).** Basic fundamentals of fishing.
153. **Lifeguarding (2).** Elementary and advanced forms of rescue including: approaches, escapes, carries, removal from water, and preventive life guarding. ARC lifeguard certification awarded if CPR and first aid requirements have previously been met (See instructor for specific details). Student pays all expenses.
154. **Lifeguard Instructor (2).** *Prerequisites: Instructor certification in CPR and first aid (ARC) and current lifeguard certification.* Preparation to become certification instructor in Lifeguarding. Student pays all expenses.
155. **Community Water Safety (1).** The course covers emergency procedures, spinal injuries, and other aquatic activities. Student pays all expenses.
157. **Water Safety Instructor (2).** *Prerequisite: Current Lifeguard instructor certification.* Water Safety Instructor certification. A 10 hour laboratory is required. Student pays all expenses.
158. **Canoeing and Rafting (2).** Essential skills for river canoeing and whitewater rafting. Student pays all expenses.
159. **Scuba Diving (3).** Knowledge and skill development in scuba diving. Eight hours pool work, five hours open water diving. Experienced swimmers only. Student pays all expenses.
161. **Martial Arts (2).** Basic skills in aikido including: etiquette, warm-up activities, falls, throws, principles of movement and self-defense.
162. **Beginning Tai Chi (1).** A study of the 24 basic forms of Tai Chi, a martial art. Elective credit only, cannot be used to satisfy HPER requirements.
164. **Rock Climbing and Rappelling (2).** Students will participate in on-campus skill sessions and two weekends of natural rock climbing and cliff rappelling. Student pays all expenses.

- 170. Basic Skills in Jazz Dance (1).** Basic skills in Jazz Dance. Elective only, cannot be used to satisfy HPER requirement.
- 189. Academic Success for Student-Athletes (1).** For freshmen student-athletes to enhance successful transition from high school to college life. Orientation to the JSU Athletics program and NCAA rules and regulations are included. Special emphasis is placed on academic excellence, athletic excellence, personal and career development and a commitment of service to the campus and community.
- 191. Varsity Sports (1).** Successful participation in major varsity sports (Male and Female). May be duplicated for credit to a maximum of eight semesters.

## HEALTH AND PHYSICAL EDUCATION

### PROFESSIONAL COURSES (HPE)

- 165. Introduction ESW (1).** An introduction to careers and opportunities in the field of exercise science and wellness. Students majoring in ESW are required to complete this course prior to their junior year. Practicum required.
- 209. Essentials of Human Performance (3).** *Prerequisite: HPE 109.* An introduction to the scientific principles of the human body/organ systems as related to human performance. This course is recommended prior to BY 263 for ESW majors.
- 212. Personal & Community Health (3).** The development of habits, attitudes, and knowledge concerning health, and the professional preparation of individuals' introduction to careers and opportunities in the field of exercise science and wellness.
- 232. Sports Safety and First Aid (2).** This course is designed for in-depth study of emergency medical treatment in case of accidents or serious illness. The study of body functions, body framework and all types of injuries are considered. Student pays all expenses.
- 272. Basic Athletic Training (3).** *Prerequisite or Co-requisite: HPE 209 or BY 263.* Introduction to the athletic training profession. Prevention, etiology, and management of athletic injuries will be stressed. Basic anatomy and first aid will be reviewed.
- 275. Advanced Athletic Training (3).** *Prerequisite: HPE 272 or permission of instructor.* Advanced athletic training fundamentals including prevention, evaluation, care and etiology of athletic injuries. Legal, professional, and ethical considerations will be discussed. Student pays all expenses.
- 284. Beginning Practicum in Athletic Training (1).** *Prerequisite: Consent of instructor.* An introduction to the basic principles of athletic training in the college environment. May be repeated a total of 4 times for credit.
- 285. Beginning Practicum in Strength and Conditioning (1).** *Prerequisite: Consent of instructor.* An introduction to the basic principles of strength and conditioning in the college environment. May be repeated a total of 4 times for credit.
- 286. Beginning Practicum in Personal Training (1).** *Prerequisite: Consent of instructor.* An introduction to the basic principles of personal training in the university wellness setting. May be repeated a total of 4 times for credit.
- 300. Practicum in Physical Education (3).** *Prerequisite: Nine hours in physical education including HPE 303.* Directed experience in observations and participation in physical education classes. Seminars will be held in conjunction with this course.
- 301. Fitness Management (3).** *Prerequisite: Junior standing.* The purpose of this course is to introduce students to the fundamental concepts, principles, and best practices associated with managing a fitness facility. This course was developed with the intent of providing students with a general overview of the management issues facing fitness professionals in their careers.
- 303. Introduction to Physical Education (3).** An introduction to the profession including physical activities, professional organizations, career opportunities, historical development, and development of a sound professional philosophy. Practicum required. HPE 303 is a prerequisite to HPE 355, 356, and 357. Successful completion of HPE 303 is also required prior to teacher education eligibility.

- 312. Health Problems and Disease Prevention (3).** An overview of health problems confronting students in today's society. An analysis of a variety of personal, social and environmental factors is included.
- 315. Community and Consumer Health (3).** This course explores a historical and philosophical study of the growth and development of science, health education, and health promotion.
- 318. Health for Special Populations (3).** This course examines primary, secondary, and tertiary levels of prevention, and applies them to health promotion/disease prevention at various developmental stages.
- 320. Seminar in Coaching Baseball (1).** Strategies and techniques for coaching baseball.
- 321. Seminar in Coaching Basketball (1).** Strategies and techniques for coaching basketball.
- 322. Seminar in Coaching Cheerleading (1).** Strategies and techniques for coaching cheerleading.
- 323. Seminar in Coaching Defensive Football (1).** Strategies and techniques for coaching defensive football.
- 324. Seminar in Coaching Offensive Football (1).** Strategies and techniques for coaching offensive football.
- 325. Seminar in Coaching Golf (1).** Strategies and techniques for coaching golf.
- 326. Seminar in Coaching Rifle (1).** Strategies and techniques for coaching rifle.
- 327. Seminar in Coaching Soccer (1).** Strategies and techniques for coaching soccer.
- 328. Seminar in Coaching Softball (1).** Strategies and techniques for coaching softball.
- 329. Seminar in Coaching Tennis (1).** Strategies and techniques for coaching tennis.
- 330. Seminar in Coaching Track & Field (1).** Strategies and techniques for coaching track and field.
- 331. Seminar in Coaching Volleyball (1).** Strategies and techniques for coaching volleyball.
- 350. Introduction to Personal Training (3).** The purpose of this course is to prepare the student to take a valid personal trainer certification exam. At the completion of the course, the student will have a basic understanding of the design and delivery of exercise programs for clients with varying levels of health with different needs and goals.
- 355. Methods of Teaching Individual and Dual Sports (3).** *Prerequisite: HPE 303. Corequisite: To be taken concurrently with HPE 356 and 357.* A course designed to teach the fundamentals of individual and dual sports basic to the physical education pro-gram. A practicum is required. HPE 355, 356, and 357 must be complete prior to teacher education eligibility.
- 356. Methods of Teaching Team Sports (3).** *Prerequisite: HPE 303. Corequisite: To be taken concurrently with HPE 355 and 357.* A course designed to teach the fundamentals of team sports basic to the physical education program. A practicum is required. HPE 355, 356, and 357 must be complete prior to teacher education eligibility.
- 357. Methods of Teaching Lifetime Activities (3).** *Prerequisite: HPE 303. Corequisite: To be taken concurrently with HPE 355 and 356.* A course designed to teach the fundamentals of lifetime activities basic to the physical education program. A practicum is required. HPE 355, 356, and 357 must be complete prior to teacher education eligibility.
- 360. Child and Adolescent Health and Wellness (3).** This course deals with child and adolescent health and wellness. Specifically, it deals with assisting children adolescents develop positive health habits.
- 362. Kinesiology (3).** *Prerequisite: BY 263.* A science of human motion, and analysis of body movements and action of muscles in human activities.
- 372. Assessment of Athletic Injuries (3).** *Prerequisite: HPE 272 or permission of instructor.* Evaluation of injuries which occur in athletics. Special attention will be given to the orthopedic assessment of joint injuries.
- 375. Therapeutic Exercise & Modalities (3).** *Prerequisite: HPE 272 or permission of instructor.* Theory and use of therapeutic modalities and rehabilitative exercise. Students will have the opportunity to learn through special experience.
- 381. Adapted Physical Education (3).** An introductory course in the field of adapted physical education. A student practicum will be required.

- 385. Practicum in Special PE & Rec (3).** Directed practical experiences in physical education and recreation with exceptional individuals. A student practicum will be required.
- 391. Methods and Principles of Coaching (3).** Theory and technique of coaching. Psychological aspects and scientific principles of movement are considered.
- 394. Practicum in Coaching (3)** Field experience in coaching
- 397, 398, 399. Independent Study in HPER (1, 2, 3).** Opportunity for undergraduate students to explore a particular area of personal interest in HPER. Consent of instructor and department head required.
- 400. Exercise Physiology (3).** *Prerequisite: BY 263.* The study of the effects of exercise on the various human physiological systems. Special attention will be given to energy metabolism, cardiovascular parameters, pulmonary function, muscle structure and function, neuromuscular integration, and environmental factors.
- 403. Special Olympics and Athletics for Special Populations (3).** Historical and current trends overview of sports for the handicapped. All types of handicapping conditions will be considered. Special attention will be on Special Olympics activities. Active involvement in the Special Olympics will be required.
- 404. Test and Measurements in PE (3).** *Prerequisites: HPE 355, 356, 357.* Techniques of test evaluation, administration, and interpretations. Emphasis on physical fitness, body mechanics, sports skills, and knowledge tests.
- 405. Scientific Principles of Conditioning (3).** *Prerequisite: Junior standing.* Application of scientific principles to the training and conditioning of athletics are taught. Emphasis will be directed toward strength, endurance, and speed acquisition, ergogenic aids, and nutrition.
- 406. Physical Fitness Techniques (3).** *Prerequisites: HPE 362, 400.* Detailed analysis of techniques associated with instruction in aerobic and anaerobic exercise. Special emphasis is placed on weight training, dance aerobics, and aqua aerobics.
- 409. Methods of Teaching PE, P-5 (3).** *Prerequisites: HPE 355, 356, 357. Teacher Education program eligibility. Corequisite: To be taken concurrently with HPE 410, 411, and 462.* Effective teaching practices and implementation of developmentally appropriate K-5 physical education instruction are taught.
- 410. Methods of Teaching PE, 6-12 (3).** *Prerequisites: HPE 355, 356, 357. Teacher Education program eligibility. Corequisite: To be taken concurrently with HPE 409, 411, and 462.* Methods and techniques of teaching 6-12 physical education are taught.
- 411. Practicum in PE, P-12 (3).** *Prerequisites: HPE 355, 356, 357. Teacher Education program eligibility. Corequisite: To be taken concurrently with HPE 409, 410, and 462.* This is a field experience course specific to the application of methods and materials for P-12 physical education.
- 412. Special Projects in Health Education (3).** Student participation in solving actual problems related to health.
- 415. Biomechanics (3).** *Prerequisite: HPE 362.* This course is a study of human movement with emphasis on biomechanical principles and their application to sport and exercise.
- 416. Seminar in Health Education (3).** Problems involved in teaching issues in health education and related topics.
- 420. Health Aspects of Aging (3).** The physical, social, emotional, and mental aspects of healthy aging will be explored.
- 421. Intramural Sports I (3).** Organization and administration of intramural programs. Emphasis is on officiating the fall sports of football and volleyball. Laboratory arranged.
- 422. Intramural Sports II (3).** Organization and administration of intramural programs. Emphasis is on officiating the winter and spring sports of basketball & softball. Laboratory arranged.
- 440. Fitness Testing (3).** *Prerequisites: HPE 362, 400.* Detailed analysis of different fitness tests. Particular attention to cardiovascular tests, interpretation of results and prescription of exercise and activities.
- 441. Design of Wellness Programs (3).** *Prerequisites: HPE 362, 400, 440 and Senior Status.* Study of the different areas in wellness programming such as smoking cessation, nutrition, stress awareness, and various fitness programs. This class includes directed practical activities as well as a comprehensive semester project.

- 450. ESW Research Seminar (3)** *Prerequisite: MS 204 or SY 304, and HPE 400.* This class is designed to expose undergraduate students to research in the field of exercise science and wellness. Particular attention will be paid to developing a research idea, applying to the institutional review board for ethics approval, data collection, data analysis and data write-up.
- 460. Motor Development (3).** *Prerequisite: Junior standing.* Theoretical and practical principles of motor development, with special emphasis on identification and assessment. A student practicum will be required.
- 462. Physical Education Program (3).** *Prerequisites: HPE 355, 356, 357. Teacher Education program eligibility. Corequisite: To be taken concurrently with HPE 409, 410, 411, and 451.* The study of curriculum, teaching methods, skills, and the organization and administration of PE programs. Ten hours practicum required.
- 465. Practicum in Exercise Science and Wellness (6).** *Prerequisites: HPE 441, Senior Standing, and successful completion of an advisor approved national certification from the American College of Sports Medicine (ACSM) or the National Strength and Conditioning Association (NSCA).* Practicum experiences in rehabilitative and/or preventative medicine with respect to ESW programming.
- 482. Seminar in Physical Education (3).** *Corequisites: To be taken concurrently with ED 495 and ED 496.* This course contributes to the preparation and meaningfulness of the student internship.
- 484. Advanced Practicum in Athletic Training (1).** *Prerequisite: Consent of instructor.* An introduction to the advanced principles of athletic training in the college environment. May be repeated a total of 4 times for credit.
- 485. Advanced Practicum in Strength and Conditioning (1).** *Prerequisite: Consent of instructor.* An introduction to the advanced principles of strength and conditioning in the college environment. May be repeated a total of 4 times for credit.
- 486. Advanced Practicum in Personal Training (1).** *Prerequisite: Consent of instructor.* An introduction to the advanced principles of personal training in the university wellness setting. May be repeated a total of 4 times for credit.

### **RECREATION LEADERSHIP (REC)**

- 221. Intro to Recreation (3).** The basic concepts of recreation. History of recreation theories of play and leisure and philosophies of recreation.
- 271. Recreational Games and Group Development Activities (2).** An introduction to games for all populations including recreational, educational, developmental, and therapeutic settings. Emphasis is on cooperative games and group development activities.
- 275. Outdoor Pursuits Expedition Field Seminar (3).** Intensive technical skills training in selected land and water outdoor pursuits including backpacking and canoe/kayak touring leading to certifications. Student pays all expenses.
- 301. Youth Sports Program (3).** Methods and principles of organizing and administering youth sports programs. Activities include directed practical experiences.
- 302. Field Experience in Recreation and Youth Leadership. (3).** A minimum of 100 clock hours required. This course will provide practical field experiences in one of the following areas of concentration: community recreation and youth sports, camping and outdoor education, and youth development.
- 310. Camping and Outdoor Education (3).** The out-of-doors and its potential for enhancing the recreation program. Special emphasis is placed on activities in the out-of-doors. A review of the developments in out-of-doors education. Student pays all expenses.
- 311. Recreation for the Aged (3).** The course provides the student with knowledge of recreational activities suitable for the older adult. The class includes directed practical activities.
- 312. Organization and Administration of Camp Programs (3).** Methods of organization and administration of camp programs including knowledge of standards, utilization of facilities and personnel roles.

- 360. Challenge Course Programs and Management (3).** Provides theoretical and experiential understanding of program and management practice associated with the use of the Low Challenge Courses in education, recreation, and therapeutic settings. Technical skill development, facilitation strategies, safety procedures, equipment management, and program design are addressed.
- 420. Youth Development Leadership. (3).** A comprehensive examination of theory and practice in contemporary youth development leadership and youth serving agencies.
- 430. Foundations of Recreation and Sport Administration (3).** *Prerequisite: Junior standing.* The purpose of this course is to introduce students to the fundamental concepts, principles, and application associated with managing recreation and sport organizations. It is a general recreation course covering a broad variety of topics ranging from the functions of management to organizational effectiveness.
- 435. Internship in Recreation (6).** *Prerequisites: REC 430 and Senior standing.* Practical field experience in selected programs.
- 440. Legal and Ethical Aspects of Recreation and Sport Management (3).** *Prerequisite: Junior standing.* The purpose of this course is to introduce students the fundamental concepts, principles, and application associated with law and ethics in a recreation and sport contexts. It is a general sport law course covering a variety of topics ranging from Title IX to best practices in risk management. This course was developed with the purpose of providing students with a general overview of the legal issues you are likely to encounter in their professional careers.
- 445. Marketing in Recreation and Sport Management (3).** *Prerequisite: Junior standing.* This course is designed to introduce students to the principles and application of marketing theory to the recreation and sport industries. This is a general course covering a wide range of sport marketing topics. These topics include promotion and media relations in recreation and sport, licensing and sponsorship of sport products, and the marketing mix strategies for recreation and sport organizations just to name a few. After completing this course students will have gained valuable insight into the theory and practice of sport marketing strategies for a diverse range of recreation and sport organizations.
- 450. Recreation and Sport Facility Management (3).** *Prerequisite: Junior standing.* This course is designed to introduce students to the principles and application of recreation and sport facility management. This is a general course covering a wide range of recreation and sport facility management topics. These topics include concessions, merchandise, and ticket sales, organization, planning and design of facilities, and event management just to name a few. After completing this course students will have gained valuable insight into the theory and practice of recreation and sport facility management for a diverse range of recreation and sport facilities.
- 455. Principles of Finance in Recreation and Sport Management (3).** *Prerequisite: Junior standing.* The purpose of this course is to introduce students to the fundamental concepts, principles, and application associated with finance in recreation and sport management. It is a general sport finance course covering a broad variety of topics ranging from basic financial concepts to budget formats. This course was developed with the purpose of providing students with a general overview of the recreation and sport financial issues they are likely to encounter in their professional careers.

## INSTRUCTIONAL SERVICES UNIT

102 RAMONA WOOD HALL

Director: Mike Zenanko  
Coordinator: Timothy D. Whittemore

The Instructional Services Unit offers two elective classes to any JSU student who wishes to provide an academic service to area children.

## INSTRUCTIONAL SERVICES UNIT (ISU)

### DESCRIPTION OF COURSES

- 101. SERVICE LEARNING. (1).** Current techniques in tutoring to help improve the academic skills of K-12 children. Three hours lecture and ten hours tutoring.
- 102. SERVICE LEARNING. (2).** Current techniques in tutoring to help improve the academic skills of K-12 children. Five hours lecture and twenty hours tutoring.

## DEPARTMENT OF TECHNOLOGY & ENGINEERING

### 153 AYERS HALL

**Department Head: Marbut**  
**Full Professor: Bekhouche**  
**Associate Professor: Godbey, Ingalsbe**  
**Instructors: Marbut, Sult**  
**Pro-rata: Phil Dean**

The Department of Technology and Engineering offers a Bachelor of Science degree with a choice of majors for students desiring to pursue careers in Applied Engineering or Management in industry. Additionally, the department offers a minor in Technology and a 2-year Pre-Engineering program for students planning to complete a traditional, professional engineering degree at another Institution.

Courses leading to the Bachelor of Science degree are offered for the following majors: **Applied Manufacturing Engineering (Design and Automation or Manufacturing Management), Applied Electronics Engineering, Industrial Leadership, and Occupational Safety and Health Management.** Requirements for these comprehensive degree programs include 66-67 semester hours of major courses. Students completing these programs are not required to have a minor in another academic discipline. All of the degrees offered through the department focus on the technological needs of manufacturing industries and, as degree programs of study, are designed to prepare management-oriented technical professionals. Programs offered within the Department involve the application of the knowledge and understanding of materials and production processes, concepts of management and human relations, safety, quality, communications, electronics, graphics, mathematics, physical sciences, and computer fundamentals in a problem-solving approach. Program graduates find employment opportunities in a variety of well-paid, professional positions.

The majors have unique provisions for persons already in the work-force and/or two-year college graduates who desire to continue their education and obtain a baccalaureate degree. Technical specialty credit (up to 36 semester hours) is awarded to students who have completed a diploma or associate degree from an approved technical, community, or junior college in an approved technical field. Technical specialty credit may also be awarded for approved management, supervisory, or technical work experience (3 semester hours per year for a minimum of 3 years up to a maximum of 6 years), or approved professional certification programs. In no case will technical specialty credit awarded exceed 36 semester hours, and it will only be awarded to students pursuing a major that is offered by the Department of Technology and Engineering.

The Department also offers a **Technology minor** to benefit students majoring in other fields. The minor features a broad offering of courses in technology, including electronics, industrial management, manufacturing, production, quality, and safety. A minor in Technology requires a minimum of 21 hours consisting of: TEC 343, 361, 371, 380 and 9 additional semester hours in the same technical specialty area. Students majoring in any program offered through the Technology and Engineering department will not be eligible for the Technology minor.

The two-year **Pre-Engineering program** offers a curriculum that will permit the majority of students to transfer with junior standing to most undergraduate engineering programs at other colleges and universities. A suggested pre-engineering program would include EH 101, 102, 141; HY 101, 102 or 201, 202; EC 221; CY 105, 106, 107, 108; MS 125, 126, 227, 344; PHS 211, 213, 212, 214; and EG 121, 201, 202, and 255.

High school students preparing for admission to the programs are encouraged to strengthen their background in mathematics and the physical sciences. Algebra, plane geometry, trigonometry, solid geometry, general

science, physics, chemistry, and any advanced mathematics are all beneficial subjects for those wishing to study technology and engineering.

### APPLIED ELECTRONICS ENGINEERING

#### FRESHMAN YEAR

Fall	Spring
EH Comp 101 .....3	EH Comp 102 .....3
HY 101 or 201 <sup>1</sup> .....3	TEC 210 Mach./Mfg. Processes .....3
TEC 201 Microcomputers .....3	TEC 211 AC/DC Circuits .....3
MS 117, Adv Technical Math I .....2	HY 102 or 202 <sup>1</sup> .....3
Soc/Beh Science <sup>2</sup> .....3	MS 119, Adv Technical Math II .....2
General Electives .....2	General Electives .....2
STU 101 .....0	
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16	16

#### SOPHOMORE YEAR

Fall	Spring
Natural Science <sup>3</sup> .....4	Natural Science <sup>3</sup> .....4
General Electives .....2	Soc/Beh Science <sup>2</sup> .....3
EG 255 Engineering Computation .....3	Literature <sup>4</sup> .....3
EH 141 Speech .....3	TEC 343 Managing Eng. Tech .....3
TEC 351 CAD .....4	TEC 380 Ind. Safety & Health .....3
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16	16

#### JUNIOR YEAR

Fall	Spring
TEC 225 Elec. Devices I .....4	TEC 326/327 or TEC 417 <sup>7</sup> .....4/3
TEC 311 Elec. Digital .....4	Literature .....3
TEC 317 or TEC 366 <sup>7</sup> .....3	EH 322 Technical Writing .....3
TEC 252 Programmable Controllers .....3	TEC 451 or TEC 427 <sup>7</sup> .....3
TEC 344 Mfg. Cost Analysis .....3	Fine Art <sup>5</sup> .....3
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17	15

#### SENIOR YEAR<sup>6</sup>

Fall	Spring
MS 204 or TEC 371 .....3	TEC 316 Advanced Electronics .....4
TEC 416 or 429 <sup>7</sup> .....3	TEC 493 Senior Seminar .....1
TEC 370 Cont. Qual. Imp. ....3	TEC 494 Ind. Internship .....2
TEC 457 .....3	General Electives .....9
TEC Elective .....3	General Electives .....1
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16	16

**APPLIED MANUFACTURING ENGINEERING MAJOR**

**DESIGN & AUTOMATION CONCENTRATION**

**FRESHMAN YEAR**

Fall		Spring	
EH Comp 101 .....	3	EH Comp 102 .....	3
HY 101 or 201' .....	3	TEC 210 Mach./Mfg. Processes .....	3
TEC 201 Microcomputers .....	3	TEC 211 AC/DC Circuits .....	3
MS 117, Adv Technical Math I .....	2	HY 102 or 202' .....	3
Soc/Beh Science <sup>2</sup> .....	3	MS 119, Adv Technical Math II .....	2
General Electives .....	2	General Electives .....	2
STU 101 .....	0		
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	16		16

**SOPHOMORE YEAR**

Fall		Spring	
Natural Science <sup>3</sup> .....	4	Natural Science <sup>3</sup> .....	4
General Electives .....	2	Soc/Beh Science <sup>2</sup> .....	3
Fine Art <sup>4</sup> .....	3	Literature <sup>5</sup> .....	3
EH 141 Speech .....	3	TEC 343 Managing Eng. Tech .....	3
TEC 351 CAD .....	4	EC 380 Ind. Safety & Health .....	3
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	16		16

**JUNIOR YEAR**

Fall		Spring	
EG 255 Eng. Computation .....	3	MS 204 or TEC 371 .....	3
TEC 252 Prog. Controllers .....	3	EH 322 Technical Writing .....	3
TEC 361 Materials and Processes .....	3	TEC 355 Solid Modeling .....	3
TEC 366 Control Systems .....	3	TEC 451 Advanced PLC .....	3
TEC 370 Continuous Quality Impr. ....	3	TEC 365 Strength of Ind. Mat .....	3
General Electives .....	1	General Electives .....	1
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	16		16

**SENIOR YEAR**

Fall		Spring	
TEC 416 Robotics & Automation .....	3	TEC 460 CA Manufacturing .....	3
TEC 452 Managing & Net. CIMS .....	3	TEC 440 Mfg. Mgmt. Systems .....	3
TEC 344 Mfg. Cost Analysis .....	3	TEC 493 Senior Seminar .....	1
Literature <sup>5</sup> .....	3	TEC 494 Ind. Internship .....	2
General Electives .....	4	General Electives .....	7
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	16		16

**APPLIED MANUFACTURING ENGINEERING MAJOR  
MANUFACTURING MANAGEMENT CONCENTRATION**

**FRESHMAN YEAR**

Fall	Spring
EH Comp 101 .....3	EH Comp 102.....3
HY 101 or 201 <sup>1</sup> .....3	TEC 210 Mach./Mfg. Processes.....3
TEC 201 Microcomputers .....3	TEC 211 AC/DC Circuits.....3
MS 117, Adv Technical Math I .....2	HY 102 or 202 <sup>1</sup> .....3
Soc/Beh Science <sup>2</sup> .....3	MS 119, Adv Technical Math II .....2
General Electives .....2	General Electives .....2
STU 101 .....0	
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16	16

**SOPHOMORE YEAR**

Fall	Spring
Natural Science <sup>3</sup> .....4	Natural Science <sup>3</sup> .....4
General Electives .....2	Soc/Beh Science <sup>2</sup> .....3
Fine Art <sup>5</sup> .....3	Literature <sup>4</sup> .....3
EH 141 Speech .....3	TEC 343 Managing Eng. Tech .....3
TEC 351 CAD .....4	TEC 380 Ind. Safety & Health .....3
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16	16

**JUNIOR YEAR**

Fall	Spring
TEC 307 Industrial Training .....3	MS 204 or TEC 371 .....3
TEC 330 Prod. & Inventory Control .....3	EH 322 Technical Writing.....3
TEC 361 Materials and Processes .....3	TEC 342 Employer/Employee .....3
TEC 366 Control Systems .....3	TEC 484 Ergonomics .....3
TEC 370 Continuous Quality Impr. ....3	TEC 440 Mfg. Mgmt. Systems.....3
General Electives .....1	General Electives .....1
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16	16

**SENIOR YEAR**

Fall	Spring
TEC 441 Project Management .....3	TEC 485 Industrial Safety Mgmt. ....3
TEC 341 Motion & Time Study .....3	TEC 442 Facilities Planning .....3
TEC 344 Mfg. Cost Analysis .....3	TEC 493 Senior Seminar .....1
Literature <sup>4</sup> .....3	TEC 494 Ind. Internship .....2
General Electives .....4	General Electives .....7
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16	16

## INDUSTRIAL LEADERSHIP MAJOR

### FRESHMAN YEAR

Fall	Spring
EH Comp 101 .....3	EH Comp 102.....3
HY 101 or 201' .....3	TEC 210 Mach./Mfg. Processes.....3
TEC 201 Microcomputers .....3	TEC 207 or TEC 211' .....3
MS 112, Algebra .....3	HY 102 or 202' .....3
Soc/Beh Science <sup>2</sup> .....3	General Electives .....4
General Electives .....1	
STU 101 .....0	
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16	16

### SOPHOMORE YEAR

Fall	Spring
Natural Science <sup>3</sup> .....4	Natural Science <sup>3</sup> .....4
Literature <sup>4</sup> .....3	Literature <sup>4</sup> .....3
Fine Art <sup>5</sup> .....3	Soc/Beh Science <sup>2</sup> .....3
EH 141 Speech .....3	TEC 370 Cont. Quality Improvement .....3
General Elective .....3	TEC 380 Ind. Safety and Health .....3
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16	16

### JUNIOR YEAR

Fall	Spring
TEC 300+ Electives <sup>7</sup> .....6	TEC 405 Industrial Leadership II .....3
TEC 305 Industrial Leadership I .....3	TEC 342 Employer-Employee .....3
TEC 344 Mfg. Cost Analysis.....3	TEC 343 Managing Eng. Tech .....3
TEC 371 Quality Control .....3	EH 322 Technical Writing.....3
General Electives .....1	TEC 300+ Electives <sup>7</sup> .....4
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16	16

### SENIOR YEAR<sup>8</sup>

Fall	Spring
TEC 300+ Electives by advisement .....3	TEC 491 Ind. Leadership Seminar .....3
TEC 407 Ind. Org. & Function .....3	TEC Electives <sup>7</sup> .....8
TEC 485 Ind. Safety Mgt. ....3	General Electives .....5
General Electives .....7	
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16	16

**OCCUPATIONAL SAFETY AND HEALTH MANAGEMENT MAJOR**

**FRESHMAN YEAR**

Fall		Spring	
EH Comp 101 .....	3	EH Comp 102.....	3
HY 101 or 201 <sup>1</sup> .....	3	TEC 210 Mach./Mfg. Processes .....	3
TEC 201 Microcomputers .....	3	TEC 207 or TEC 211 <sup>7</sup> .....	3
MS 117, Adv Technical Math I .....	2	HY 102 or 202 <sup>1</sup> .....	3
Soc/Beh Science <sup>2</sup> .....	3	MS 119, Adv Technical Math II .....	2
General Electives .....	2	General Electives .....	2
STU 101 .....	0		
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	16		16

**SOPHOMORE YEAR**

Fall		Spring	
Natural Science <sup>3</sup> .....	4	Natural Science <sup>3</sup> .....	4
Literature <sup>4</sup> .....	3	Literature <sup>4</sup> .....	3
Fine Art <sup>5</sup> .....	3	Soc/Beh Science <sup>2</sup> .....	3
EH 141 Speech .....	3	TEC 380 Ind. Safety & Health .....	3
General Electives .....	3	General Electives .....	3
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	16		16

**JUNIOR YEAR**

Fall		Spring	
TEC 344 Mfg. Cost Analysis.....	3	TEC 343 Managing Eng. Tech .....	3
TEC 370 Cont. Qual. Improvement .....	3	MS 204 or TEC 371 .....	3
TEC 392 Fire Safety Tech .....	3	TEC 382 or TEC 384.....	3
Tech Electives .....	3	TEC 307 Ind. Training.....	3
General Electives .....	4	EH 322 Technical Writing.....	3
	-----	General Electives. ....	1
	16		-----
			16

**SENIOR YEAR**

Fall		Spring	
TEC 342 Employer-Employee .....	3	TEC 484 Industrial Ergonomics.....	3
TEC 485 Ind. Safety Mgt .....	3	TEC 487 Systems Safety .....	3
TEC 390 Hazard Control Tech .....	3	TEC 489 Hazard Materials .....	3
TEC 486 Safety Perm. Mgmt .....	3	TEC 493 Senior Seminar .....	1
TEC 488 Industrial Hygiene .....	3	TEC 494 Ind. Internship .....	2
General Electives .....	1	General Electives .....	4
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	16		16

<sup>1</sup>Select one complete sequence: HY 101, 102 or 201, 202

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

<sup>3</sup>Select from: CY 105, 106, 107, 108 or PHS 201, 202, 203, 204

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

<sup>5</sup>Select from: ART 202, DR 242, MUS 233, FL 101

<sup>6</sup>Students will be required in their senior year to take a professional certification exam in meeting graduation requirements

<sup>7</sup>See advisor for approval <sup>8</sup>Must have a grade of "C" or better

## TECHNOLOGY (TEC) DESCRIPTION OF COURSES

100. **TECHNOLOGY ORIENTATION (2)**. Orientation to the department of Technology and Engineering. Topics include: Personal and social skills, academic study skills, technology career planning, advising, program requirements, and university organization. Field trips to local industries required.
201. **MICROCOMPUTERS - APPL. AND TECH. (3)**. Two hours lecture and two hours lab per week. An introduction to microcomputer hardware and applications of the microcomputer in industry. Hands on experience with computer system hardware and software.
- 207 **ELECTRICAL, FLUID POWER, AND MECHANICAL SYSTEMS (3)**. An introduction to electrical, mechanical and fluid power systems found in manufacturing. Topics include: safety, basic electricity, circuits, Inductors and capacitors, AC basics, transformers and three phase power, relays and motor starters, switches and sensors, hydraulics and pneumatics, mechanics and power transmission.
210. **MACHINING/MANUFACTURING PROCESSES (3)**. An introduction to machining concepts and basic processes. Practical experiences with hand tools, jigs, drills, grinders, mills and lathes is emphasized.
211. **AC/DC CIRCUITS (3)**. *Prerequisite: MS 112*. Two hours lecture and two hours lab. Scientific and engineering notation; voltage, current, resistance and power, inductors, capacitors, network theorems, phaser analysis of AC circuits.
225. **ELECTRONICS DEVICES I (4)**. *Prerequisites: MS 112 and TEC 211*. Three hours lecture and two hours lab. First course in solid state devices. Course topics include: solid state fundamentals, diodes, BJTs, amplifiers and FETs.
252. **PROGRAMMABLE CONTROLLERS (3)**. *Prerequisite: TEC 201 or equivalent*. Two hours lecture and two hours lab. Study of basic industrial control concepts using modern PLC systems.
305. **INDUSTRIAL LEADERSHIP (3)**. *Prerequisite: Sophomore or higher standing*. Analysis and development of the competencies and knowledge required of industrial leaders to effectively manage production and work teams in a dynamic workplace comprised of a diverse population.
307. **INDUSTRIAL TRAINING (3)**. *Prerequisite: TEC 201 or equivalent*. Study of time analysis methods used to determine training requirements, assessing personnel and training resources as well as planning, coordinating and evaluating training.
311. **ELECTRONICS - DIGITAL (4)**. *Prerequisite: TEC 201 or equivalent*. Three hours lecture and two hours lab per week. Introduction to digital logic, binary numbers and codes, Boolean algebra, gating networks, flip-flops and registers, sequential and combinatorial logic circuits and semi-conductor memories.
316. **ADVANCED ELECTRONICS (4)**. *Prerequisites: TEC 225, 311, or equivalents*. Three hours lecture and two hours lab per week. In-depth study of selected electronic concepts. Topics include: computer analysis of major digital logic families, introduction to state logic, transmission lines, and A/D conversion.
317. **INDUSTRIAL NENTWORKING I (3)**. *Prerequisites: TEC 201 or equivalent*. *Network fundamentals, routing, Lan switching, wireless and wide area networks*.
318. **Problems in Robotic Design and Programming (3)**. *Prerequisites: EG 255 or permission of instructor*. Problems involving the application and integration of robotic design, remote controls of robots, and programming robots for autonomous control.
319. **ADVANCED PROBLEMS IN ROBOTICS DESIGN AND PROGRAMMIING (3)**. *Prerequisites: EG 255 and MS112/113/125 or permission of the instructor*. Problems involving the application and integration of robotic design, remote control of robots, and programming robots for autonomous control. This is the second of two courses that constructs and programs a robot to compete in the ATMAE annual robotics contest.

- 326. ELECTRONIC DEVICES II (3).** *Prerequisite:* TEC 225. Second course in solid state devices. Topics include: amplifier frequency characteristics, UJT, SCR, OPTO devices, operational amplifiers, filters, and voltage regulators.
- 327. ELECTRONIC DEVICES LAB (1).** *Corequisite:* TEC 326. Three hours lab per week. Experiments involving basic electronic devices.
- 330. PRODUCTION AND INVENTORY CONTROL (3).** *Prerequisite:* *Sophomore Status.* Examines the issues involved in effective manufacturing, production and inventory control and shows their interrelatedness.
- 341. MOTION AND TIME STUDY (3).** *Prerequisite:* MS 112. Analysis of motions necessary to perform industrial operations; motion economy; development of ratings, allowances, standard data, formula construction, work sampling, wage payment and performance training.
- 342. EMPLOYER-EMPLOYEE RELATIONS (3).** *Prerequisite:* *Sophomore Status.* Theory and policy to perform industrial relations; organization and administration, theories of work, labor relations, commitment and morale, communications, employee benefits and services.
- 343. MANAGING ENGINEERING TECHNOLOGY (3).** *Prerequisite:* *Sophomore Status.* Examination and planning of manufacturing operations, personnel, control methods, equipment and supplies.
- 344. MANUFACTURING COST ANALYSIS (3).** *Prerequisites:* MS 112 and TEC 201 or equivalent. Technical and economic evaluation of manufacturing operations to determine cost and feasibility.
- 351. COMPUTER-AIDED DESIGN (4).** *Prerequisite:* MS 112 or higher. Three hours lecture and two hours lab. Interpreting engineering drawings and the creation of computer graphics as applied to two-dimensional and three-dimensional drafting and design.
- 355. SOLID MODELING (3).** *Prerequisite:* TEC 351 or equivalent. Two hours lecture and two hours lab each week. A parametric, feature based, solid modeling 3D computer-aided design course for mechanical design.
- 361. MATERIALS AND PROCESSES OF INDUSTRY (3).** *Prerequisite:* TEC 210 or equivalent. Selection/altering of industrial materials to increase their value, and how they are used in manufacturing. Emphasis on metal and plastics but other materials are discussed.
- 365. STRENGTH OF INDUSTRIAL MATERIALS (3).** *Prerequisite:* MS 113 or MS 118 or equivalent. Internal stresses and deformation of bodies resulting from action of external forces; concepts and techniques of testing tensile, compression, shear, transverse, hardness, elasticity on various materials and fasteners.
- 366. CONTROL SYSTEMS TECHNOLOGY (3).** *Prerequisite:* TEC 211. Coverage of control systems fundamentals to include: open and closed loop systems, measuring instruments characteristics, sensors in control systems, manipulation methods, and types of control systems.
- 370. CONTINUOUS QUALITY IMPROVEMENT (3).** *Prerequisite:* TEC 210 or equivalent. An introduction to the concept of continuous quality improvement and its implementation using process improvement teams.
- 371. QUALITY CONTROL IN INDUSTRY (3).** *Prerequisites:* MS 112 and TEC 370. Methods and procedures employed in industrial quality control, theories of measurement, error, prediction, sampling, tests of significance and models.
- 380. IND. SAFETY AND HEALTH (3).** Principles of hazard identification. Engineering and administrative controls and personal protective equipment. Accident analysis and corrective action.
- 382. STANDARDS OF IND. SAFETY (3).** *Prerequisites:* TEC 210 and TEC 380. Standards for plants and manufacturing operations. Enforcement of safety standards and OSHA checklist.
- 384. CONSTRUCTION SAFETY (3).** *Prerequisite:* Tech 380. Concepts of construction safety and health and an in-depth coverage of federal and state construction safety regulations. Recognition and control of construction hazards, fell protection scaffolding, excavation, and crane safety.
- 390. HAZARD CONTROL TECHNOLOGY (3).** *Prerequisites:* TEC 211 and TEC 210 and TEC 380. Principles and methods for the analysis and design of processes, equipment, products, facilities, operations and environment.

- 392. FIRE SAFETY TECHNOLOGY (3).** *Prerequisite: MS 112.* Fire chemistry and propagation. Recognition and control of fire hazards, fire codes, risk, reports and records, and emergency response.
- 400. MANUFACTURING CONCEPTS (3).** This course introduces technical education teachers to the principles, practices, and techniques for managing manufacturing technologies.
- 401. CAREER TECHNOLOGIES (3).** Development of operational skills for technical education and career technology teachers.
- 405. INDUSTRIAL LEADERSHIP II (3).** *Prerequisite: TEC 305.* Advanced analysis and development of the competencies and knowledge required of industrial leaders to effectively manage production and work teams in a dynamic workplace comprised of a diverse population.
- 407. INDUSTRIAL ORGANIZATION & FUNCTION (3).** *Prerequisite: TEC 305.* A study of the development and organization of industry and the major functions to include research & development, production, financial control, marketing, and labor. Emphasis on contemporary issues associated with a global economy.
- 416. MANUFACTURING AUTOMATIONS AND ROBOTICS (3).** *Prerequisite: TEC 201.* Examination of how industrial controls, and industrial robots function in an automated manufacturing environment. Students learn the theory of operation, how to program, and the practical application of robotic systems. Topics will also include software applications and the integration of control systems for manufacturing.
- 417. INDUSTRIAL NETWORKING II (4).** *Prerequisite: TEC 317 or equivalent.* Advanced routing and switching in an enterprise network.
- 427. INDUSTRIAL NETWORKING III (3).** *Prerequisite: TEC 417 or equivalent.* Monitoring and maintaining complex, enterprise routed and switched IP networks.
- 429. APPLIED DIGITAL COMMUNICATIONS SYSTEMS (3).** *Prerequisite: TEC 201 or equivalent.* A detailed study of digital communications techniques. Topics include: sampling and digital pulse modulation, communications networks and standards, protocol and troubleshooting, digital multiplexing and cellular communications.
- 436. INVENTORY MANAGEMENT (3).** *Prerequisite: TEC 330.* Prepares students for positions in the field of production and inventory management through understanding of production scheduling, implementation and design.
- 440. MANUFACTURING MANAGEMENT SYSTEMS (3).** *Prerequisites: TEC 343 and TEC 344.* The analysis, design, and implementation of world class manufacturing systems for the manufacture of superior, low cost parts. Topics include lean manufacturing, cellular manufacturing, manufacturing teams, integrated quality systems, and other current manufacturing management strategies.
- 441. PROJECT MANAGEMENT (3).** *Prerequisites: TEC 201 and TEC 343.* Prepare students for managing projects in manufacturing and service industries through understanding of how to plan, manage, and deliver projects on time and within budget and how to effectively contribute in project teams.
- 442. Facilities Planning (3).** **Prerequisites: TEC 343.** Macro and micro level examination of facility planning. Course includes techniques and procedures for developing an effective facility layout including collection, analysis, and development of vital and relevant data with emphasis on manufacturing facilities.
- 451. ADVANCED PROGRAMMABLE CONTROLLERS (3).** *Prerequisite: TEC 252.* Two hours lecture and two hours lab. Study of advanced control concepts using modern programmable controllers with detailed study of selected controllers. Study of recent controller architectures with emphasis on data communications.
- 452. MANAGING AND NETWORKING CIMs (3).** *Prerequisites: TEC 351 and 460.* Two hours lecture and two hours lab. CIM group productivity techniques to include basic CIM management concepts, basics of networking, and advanced customization.
- 460. COMPUTER-AIDED MANUFACTURING (3).** *Prerequisite: TEC 351 and MS 118.* Three hours lecture and one hour lab. Utilization of computer technology in the automation of manufacturing systems.

- 484. INDUSTRIAL ERGONOMICS (3).** *Prerequisite: MS 112.* Concepts and techniques of work measurements, human factors, and industrial safety and hygiene are merged to provide a comprehensive view of the workplace.
- 485. INDUSTRIAL SAFETY MGT. (3).** *Prerequisites: TEC 380 and TEC 343.* Planning, implementation and evaluation of industrial safety programs.
- 486. SAFETY PERFORMANCE MANAGEMENT (3).** *Prerequisites: PSY 201 and TEC 485.* Concepts and methodologies for evaluating performance of safety programs with emphasis on human behavior and the role of management in influencing safety performance.
- 487. SYSTEMS SAFETY (3).** *Prerequisites: TEC 380 and MS 204 or TEC 371.* Principles and techniques of systems safety analysis to assure safe operation of systems and facilities throughout the life cycle from design to disposal.
- 488. INDUSTRIAL HYGIENE (3).** *Prerequisite: TEC 380.* Recognition, evaluation, and control of toxic hazards in the work environment. Acute and chronic systemic effects of environmental toxins in the workplace.
- 489. HAZARDOUS MATERIAL TECH. (3).** *Prerequisite: TEC 380.* Practical management and control of hazardous materials and wastes for the safety professional.
- 491. INDUSTRIAL LEADERSHIP SEMINAR (3).** Students related modern leadership practices to practical industrial situations.
- 493. SENIOR SEMINAR. (1).** *Prerequisites: EH 322 or equivalent, Senior Standing and consent of Instructor. Corequisite: TEC 494.* Coverage of terms, concepts, tools, and skills needed (industrial business, ethics, tech presentations) to succeed as a professional in technological and engineering environments. Pass/Fail only.
- 494. INDUSTRIAL INTERNSHIP (2).** *Prerequisites: EH 322 or equivalent, Senior Standing and consent of Instructor. Corequisite: TEC 493.* Provides Technology majors with practical industrial experiences via an approved internship arrangement. Pass/Fail only. This class may be taken twice.
- 495. SPECIAL TOPICS IN TECHNOLOGY (3).** *Prerequisites: Senior status and approval of department head .* Special topics of current interest to groups of students in the Technology program concerning content not presented in regular course offerings.
- 496. ADV. PROBLEMS IN TECHNOLOGY (3).** *Prerequisites: Senior status and approval of department head and EH 322 or CBA 350.* Problems involving the application and integration of electronics, industrial safety, quality, industrial management, and/or computer integrated manufacturing technology. This may include an industrial practicum and/or internship.
- 498. SME PREP (2).** *Prerequisite: Senior status.* An in-depth and through coverage of the terms, concepts, tools 232 and skill needed to obtain the certification of Certified Manufacturing Technologist.

## ENGINEERING (EG)

### DESCRIPTION OF COURSES

- 112. ENGINEERING METHODS. (3).** *Prerequisite or Concurrently: MS 113 or permission of instructor.* The use of applied mathematics in solving elementary scientific and engineering problems. Topics include basic mathematical analysis, the electronic calculator, unit systems, metrication, engineering statistics, laboratory procedures and measurements, and computer applications. Three hours lecture.
- 121. ENGINEERING GRAPHICS I (4).** *Prerequisite: MS 112 or higher.* Orthographic and isometric projections; multiview projection on principal and auxiliary planes; dimensioning; detail and assembly working drawings. Interactive two-dimensional and three-dimensional computer-aided graphics. Three hours lecture and two hours laboratory each week.
- 201. APPLIED MECHANICS - STATICS (3).** *Prerequisites: EG 112, PHS 211, and/or con-currently, MS 126.* Analysis of the principles of mechanics and their engineering applications. Forces; moments and couples; resultants of force systems; equilibrium, friction, centroids, moments of inertia.
- 202. APPLIED MECHANICS - DYNAMICS (3).** *Prerequisites: EG 201 and MS 126.* Absolute and relative motion; force, mass and acceleration; work and energy; impulse and momentum; mechanical vibrations.

- 226. ELECTRICAL CIRCUITS ANALYSIS I (3).** *Prerequisites: PHS 211 and MS 125.* Electric and magnetic circuit concepts; transient and steady-state solutions of simple circuits. Phasor analysis of AC circuits and network theorems.
- 251. ENGINEERING SURVEYING (3).** *Prerequisite: EG 112.* The use of tapes, levels, transits, and surveying instruments including the theodolite will be studied and applied to problems involving position, area, volume, grade, mapping, distance, evaluation, analysis or error, and land surveying. Two hours lecture and three hours lab.
- 255. ENGINEERING COMPUTATION (3).** *Prerequisite: MS 113 or equivalent.* Programming, with introduction to numerical methods useful in the solution of engineering, scientific, and mathematical problems. The course is implemented using a high-level programming language. Two hours lecture and two hours integral non-scheduled laboratory required each week.
- 320. ENGINEERING ECONOMY (3).** *Prerequisite: MS 112 or equivalent.* Annual cost; present work, rate of return, and profit-cost methods of determining prospective differences among alternatives; depreciation, tax and cost analysis; and replacement and retirement analysis.
- 328. ELECTRICAL CIRCUITS LABORATORY (3)** *Prerequisite: EG 226.* Experiments related to electrical circuits. Application and verification of the principles in electrical circuits. Three hours laboratory hours per week.
- 343. STRENGTH OF MATERIALS (4).** *Prerequisites: EG 201 and MS 126.* Stress-strain relationships; behavior of materials in tension, compression and shear; column formulae; combined stress computations; theorem of three moments; composite structural members.
- 361 THERMODYNAMICS (3).** *Prerequisites: MS 227 and PHS 211.* Heat and work; thermodynamic systems and equations of state; the zeroth, first, and second laws of thermodynamics; change of phase; the combined first and second laws; irreversibility and availability of energy; mixtures of ideal gases; psychrometry.
- 373. FLUID MECHANICS (3)** *Prerequisites: MS 126 and PHS 211.* Fluid statics; the conservation equations and their applications; dimensional analysis and similitude; flow in closed and open conduits; one-dimensional compressible flow.
- 374. FLUID AND THERMAL LABORATORY (1).** Laboratory in fluid mechanics, thermodynamics, and related areas. Typical experiments are flows in pipes and channels, flow control devices, gas laws, compressible flow, engine performance. Three laboratory hours per week.