

## **USF Tampa 2012-2013 Undergraduate Catalog: USF in Lakeland Addendum**

Effective July 1, 2012, USF Polytechnic ceased to exist by legislative mandate, and all faculty and degree programs of USF in Lakeland were moved to academic homes in the colleges of USF's main campus in Tampa. As part of its commitment to student success, USF will "teach out" all degree programs in Lakeland and continue to provide a full array of academic and student support services for Lakeland students. USF operations in Lakeland will continue through summer 2015.

# COLLEGE OF HUMAN AND SOCIAL SCIENCES

## **Baccalaureate-Level Degree Programs**

The divisions in the College of Human and Social Sciences include Education and Social Sciences. The College of Human and Social Sciences offers the major fields of study listed below as described in the following pages.

### **BACHELOR OF ARTS (B.A.)**

Criminology (CCJ)  
Interdisciplinary Social Sciences (ISS)  
Psychology (PSY)

### **BACHELOR OF SCIENCE (B.S.)**

Elementary Education (BEE)

### **BACHELOR OF GENERAL STUDIES (B.G.S.)**

General Studies (BGS)

### **DEPARTMENTAL MINOR**

Minors generally require half as many hours as required for the major. In order to help students develop some concentration in elective work taken in conjunction with their chosen major, the College of Human and Social Sciences offers minors in the following: Communication, Criminology, Professional & Technical Writing, Psychology, and Sociology.

Certain restrictions apply to students earning a minor: (a) students may not use courses in the major for the minor, unless approved by the department offering the minor; and (b) ISS majors may not earn a minor in any of the cognate areas incorporated in their contracts. In some departments, S/U grades within the minor curriculum are not countable. Specific requirements for the different minors appear under the division summaries.

## **DIVISION OF EDUCATION**

The Division of Education is accredited by the National Council for Accreditation of Teacher Education (NCATE). All educator preparation programs must meet the requirements of Chapter 6A-5.066 Rules of the State Board of Education of Florida, and have "Approved Program" status.

Educator preparation programs are aligned with the Florida Educator Accomplished Practices and each program has an assessment program in place to monitor student progress toward these standards. Programs that do not lead to teacher certification are aligned with their respective professional standards and have assessment programs in place to monitor student progress toward those standards. Students in educator preparation programs leading to teacher certification are required to **complete critical tasks/assignments** in several of their professional preparation courses. Several of the educator preparation programs require students to submit these critical tasks/assignments in an electronic portfolio. Therefore, a yearly access code to the electronic portfolio must be purchased by the student.

The Division of Education is committed to a continuous and systematic examination of the professional program of educator preparation. Each department within the Division maintains professional standards by participating in nationally-certified program reviews and also through ongoing departmental appraisals of learning outcomes.

The University follows a University-wide approach to educator preparation. Its programs for the preparation of teachers represent a cooperative effort in planning and practice by faculties in appropriate academic areas. Courses primarily designed for teacher candidates are taught by the Division of Education faculty.

Please be advised that program and/or course requirements and fingerprinting/background check procedures are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

### **Undergraduate Students**

If you are pursuing a Bachelor's Degree in an educator preparation field, you will need to complete field experiences in EDF X005, EDG X701, or EDF X085. These are prerequisite courses required for admission to the Division of Education. You will need an SSN before enrolling the first day of classes for these courses.

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If you are pursuing a Bachelor's degree in Exercise Science you might need an SSN to complete a field experience or internship depending on your placement site requirements. If you are in this program please discuss this with the program coordinator of the Exercise Science program.

## Education Advising

Student Academic Services (SAS) is responsible for many of the processes and procedures that support the academic pursuits of students in the program. The department's major areas of responsibility include: Pre-Education Advising, Undergraduate Advising, Graduate Studies, and Teacher Certification. SAS is committed to serving the University community, particularly students in the Division of Education.

Students are ultimately responsible for knowing and fulfilling all university, college, and degree program requirements for graduation. Admitted students are encouraged to make an appointment with an academic advisor each semester.

### Advising Office

USF in Lakeland: (863) 667-7000

## Time Limitations

The Division of Education may accept professional education and specialization coursework completed at this University or at other accredited institutions as follows:

1. Courses completed within the last five years may be accepted.
2. Courses completed over five years but less than ten years ago must have the approval of the chairperson from the department in which the equivalent course is taught.
3. Courses completed ten years ago or longer will count as elective credit only.

## Qualifications for Internship Experience in Educator Preparation Programs

The final internship experience involves observing and teaching in an elementary or secondary classroom. In most programs internship sites include the entire spectrum of sites available in Polk, Highlands, Desoto and Hardee counties. Special requirements for enrollment in the final internship and seminar courses are:

1. Admission to the Division of Education.
2. Completion of FKL (General Education), "Gordon Rule," and all other program prerequisites.
3. Passing scores on all sections of the General Knowledge Test.
4. Completion of an application for the final internship by the deadline noted. Applications for final internship are made through the academic advisor's office. Application deadline for Fall Semester is January 15th. Application deadline for Spring semester is June 15th.
5. Completion of fingerprinting and background check are required by the school district in which the student is placed.
6. Elementary (K-6) Education requires completion of all professional education and specialization course work except for *Health & P.E. for the Child*, which may be completed with the internship.
7. The Elementary Education program requires a combined grade point average of 2.50 in professional education and specialization coursework, as well as an overall USF GPA of 2.50.
8. Students must earn a minimum "C-" grade or "S" in their required major courses.
9. Successful completion of the FTCE prior to placement in Level III Internship.
10. Receive a satisfactory or rating of 3 or higher on final Disposition Form.

Failure to successfully complete the Subject Area and/or Professional Education components of the FTCE will result in an "I" final grade for the final internship experience. Some school districts require successful completion of this test before the final internship.

## College Requirements for Graduation from Educator Preparation Programs

To be certified by the Division of Education for graduation, a student must have:

1. Earned a minimum of 120-semester credit hours.
2. Successfully completed all program requirements for ESOL.
3. A minimum overall USF grade-point average of 2.50. The Elementary program requires a combined grade point average of 2.50 in professional education and specialization, as well as an overall USF GPA of 2.50.
4. Satisfactory completion of the internship.

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5. Pass the General Knowledge Test prior to admission to the program.
6. All documents due for graduation (i.e., test scores, final grades, final transcripts) submitted no later than 5:00 pm on the Friday after the graduation ceremony. If that date is a university holiday, then the said information must be submitted no later than 5:00 pm on the Thursday after the graduation ceremony.
7. A minimum of 8 credits in professional courses in addition to internship, and 12 credits in specialization courses must have been earned at USF.
8. A minimum of 30 hours in the Division of Education after admittance to an upper-level program.

### **BACCALAUREATE-LEVEL DEGREE PROGRAMS**

The Division of Education has a program leading to the Bachelor of Science degree\* in Elementary Education (K-6). The Division of Education is organized into four programs--two are at the undergraduate level and three are at the graduate level.

#### **Elementary Education (K-6) Program**

The Elementary Education Program has the responsibility for the development and supervision of programs leading to the Bachelor of Science Degree in Elementary Education.

Please be advised that program and/or course requirements are subject to change, per state legislative mandates, Florida State Department of Education program approval standards, and accreditation criteria.

Elementary majors will be assigned to a specified sequence of courses to be followed throughout the program enrollment. These are taken in cohort fashion. Coursework will include internship and field experience. Students who withdraw from or who have unsatisfactory grades in the field experiences or internships must petition the department's Professional Standards Committee before they will be allowed to repeat the internships. Any internship can only be taken twice before removal from program.

#### **Elementary Education Program with ESOL Endorsement**

Students may complete a state-approved program to be eligible for certification in Elementary Education (Grades K-6). Degree and certification requirements are subject to change in accordance with state mandates. The current program of studies includes both coursework and extensive field experience in elementary school settings to enable students to integrate theory with teaching practice. All elementary education students are required to demonstrate the Florida Educators Accomplished Practices (FEAPs) through core assignments in courses and internships that are submitted to the Chalk and Wire electronic portfolio system. Students must pass all Chalk and Wire assignments and upload every assignment to their Chalk and Wire account in order to graduate from the program.

The Division of Education offers a full ESOL Endorsement for all Elementary Education major graduates. The special requirements for ESOL endorsement through infusion are as follows: Successful completion of (1) TSL 4080, TSL 4081, and TSL 4251, with a minimum grade of 70 percent or better on all three sections of the ESOL Comprehensive Exam administered in the three ESOL courses; (2) a 20-hour early ESOL field experience in TSL 4080; (3) a late ESOL field experience where students plan, implement, and evaluate lessons for one or more ESOL students over 10 days; and (4) an ESOL folder, containing all assignments and test results from TSL 4080, TSL 4081, and TSL 4251, and all ESOL performance check-off sheets from other ESOL-infused courses that a student has taken.

- **ELEMENTARY EDUCATION (K-6) with ESOL Endorsement**

**Completion of General Education requirements:** General Education courses will be determined by the community college or university where the student currently is earning the Associate in Arts or baccalaureate degree, and will be published in the institution's existing catalog or in the Community College Counseling Manual.

Students are advised that the Elementary Education specialization will require an enrollment of more than the traditional four semesters of the junior and senior years in order to complete the program specialization courses and the required sequence of internship.

This is a cohort Program. The order in which these courses are to be taken is designated in the program of study.

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### Professional Education (32-33 credit hours):

EDF	3122	Learning and the Developing Child	3
EDF	3604	Social Foundations of Education	3
EDF	4430	Measurement for Teachers	3
EEX	4070	Integrating Exceptional Students in the Regular Classroom	2-3
TSL	4080	ESOL I: Curriculum and Pedagogy of ESOL	3
TSL	4081	ESOL II: Literacy Development in English Language Learners	3
TSL	4251	ESOL III: Applying Linguistics to ESOL Teaching And Testing	3
EDE	4940	Internship: Elementary Education	10-12

### Specialization (41 credit hours):

EDE	4301	Classroom Management, School Safety, Ethics Law, and Elementary Methods	3
EDE	4941	Childhood Education Internship Level I	3
HLP	4722	Health and Physical Education for the Child	2
EDE	4942	Childhood Education Internship Level II	6
LAE	4314	Teaching Writing in Elementary School (K-6)	3
LAE	4414	Teaching Literature in Elementary Schools (K-6)	3
MAE	4310	Teaching Elementary School (K-6) Math I	3
MAE	4326	Teaching Elementary School (K-6) Math II	3
RED	4310	Reading and Learning to Read	3
RED	4511	Linking Literacy Assessment to Instruction	3
SCE	4310	Teaching Elementary School Science	3
SSE	4313	Teaching Elementary (K-6) Social Studies	3
EDE	4223	Creative Experiences for the Child	3

### Measurement and Psychological/Social Foundations of Education

The Department of Psychological and Social Foundations of Education does not offer a specific major or degree program, but provides courses for all students majoring in the wide array of undergraduate programs available in the Division of Education. These courses contribute to the students' understanding of the FKL (General Education) enterprises and are considered foundational to later professional specialization. Consequently, these courses should be taken early in the professional program, typically in the junior year.

### Professional Education Core (34-39 cr. hrs.):

EDF	3122	Learning and the Developing Child	3
EDF	3214	Human Development and Learning	3
EDF	3514	History of Education in the United States	3
EDF	3604	Social Foundations of Education	3
EDF	4111	Child Growth and Learning	3
EDF	4131	Learning and the Developing Adolescent	3

### In addition the department offers:

EDF	3228	Human Behavior and Environmental Selection	3
EDF	4905	Independent Study: Educational Foundations	1-3
EDF	4909	Directed Study: Educational Foundations	1-3
EDF	5607	Trends in Social-Political Foundations of Schooling in the U.S.	3
IDS	3115	Values and Choices	3

### Measurement

EDF	4430	Measurement for teachers	3
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The Counselor Education program offers undergraduate courses focusing on human services skill development, decision-making and personal growth. Course content contributes to student success in academic and personal endeavors and may serve to orient students to post-graduate work in human services fields.

MHS	4052	Human Relations Skills in Counseling	4
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MHS 4905	Independent Study: Guidance and Counseling Education	1-4
SDS 4040	Introduction to Student Personnel Work in Higher Education	2

## DIVISION OF SOCIAL SCIENCES CRIMINOLOGY (CCJ)

The major in Criminology provides students with in-depth exposure to the total criminal justice system including law enforcement, detention, the judiciary, corrections, juvenile justice and probation and parole. The program concentrates on achieving balance in the above aspects of the system from the perspective of the criminal justice professional, the offender, and society. The program provides a solid background in the theory, issues and methodology comprising Criminology.

The objective of the undergraduate program in Criminology is to develop a sound educational basis either for graduate work or for professional training in one or more of the specialized areas comprising the modern urban criminal justice system.

### Requirements for the Major in Criminology

A minimum of 36 semester hours is required of all undergraduate majors in Criminology including:

1. Each of the following core courses:

CCJ 3024 (3)	CCJ 3117 (3)
CCJ 3701 (3)*	CCJ 4934 (3)

2. 24 semester hours of electives within the major.

\* Students must take CCJ 3117 prior to enrollment in CCJ 3701.

NOTE: No more than six (6) hours of CCJ 4900, CCJ 4910 or any combination of the two will be accepted toward the minimum number of hours in the major. A student may take an unlimited amount of CCJ 4933 or 4934 as long as they vary in title.

Any student who receives a grade of "D" or lower in more than one USF CCJ course will be automatically barred from continuing as Criminology major.

### Requirements for the Minor in Criminology

A minimum of 18 hours is required of all Undergraduate minors in Criminology including:

1. The following two required courses:

CCJ 3024 (3)	CCJ 3117 (3)
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2. An additional 12 semester hours of electives within Criminology.

A minimum of 9 semester hours must be completed at USF. Students who minor in Criminology are subject to the Department's "1 D" Rule.

## INTERDISCIPLINARY SOCIAL SCIENCES (ISS)

The ISS program is designed to provide an interdisciplinary integration of the social sciences for students who are interested in a broad educational experience. ISS offers a wide choice of courses, and an opportunity to design a quality program geared toward individual needs and interests. Students plan their program in ongoing consultation with the advisor who approves each individual curriculum contract.

Specific requirements for a B.A. degree in Interdisciplinary Social Sciences (ISS) are outlined below.

### Interdisciplinary Core Courses

Two of these courses, an introductory course (3013) and the senior seminar (4935), introduce and employ the interdisciplinary social science perspective. These courses involve students in the study of human life and experience; the various concepts, theories and methods used in the social sciences; and apply them to contemporary issues and questions. Social Science Statistics (STA 2122) or Psychological Statistics (PSY 3204) is the third core course required for majors in Interdisciplinary Social Sciences.

### Coursework required for Interdisciplinary Social Sciences Majors

1. Required core courses for the major are:

ISS 3013: Introduction to Social Sciences	3
ISS 4935: Seminar in the Social Sciences	3
STA 2122: Social Sciences Statistics (or equivalent)	3

2. The ISS student chooses between two concentration areas and completes twelve hours in each. In

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addition, three special electives emphasize cultural diversity.

3. Students should work out a program of study at the onset of their junior year, particularly before too many courses are completed in the College of Human and Social Sciences. **No student should assume that courses already completed will automatically count toward the ISS degree.**
4. The completion of 42 approved hours of course work from the College of Human and Social Sciences (HT), with a minimum of 30 hours at the 3000 or above level.
5. Students must maintain a minimum grade point average of 2.0 in ISS to graduate.
6. ISS majors must satisfy two semesters of a foreign language in order to graduate.

No transfer courses with grades of "D" are acceptable for credit in the ISS major.

**CONCENTRATION AREAS** - Students select two areas and take 12 hours in each. Concentrations must be selected from the following areas of study: Communication, Criminology, Gerontology, Leadership Studies, Psychology, or Sociology.

## PSYCHOLOGY (PSY)

Psychology involves the scientific study of behavior and mental processes. Because of this focus, psychology is relevant to many other areas of study both inside and outside of the social and behavioral sciences. The undergraduate program in Psychology offers the student a well-rounded liberal arts education. In addition, the program provides excellent training for qualified students who wish to pursue graduate work in such disciplines as Clinical, Cognitive and Neural Sciences or Industrial Psychology, Education, Gerontology, Counseling, Management, Medicine, Law, and other human service programs. The undergraduate major emphasizes the breadth of psychology while allowing the student some electives to pursue in depth a particular aspect of the field.

### Requirements for the Major in Psychology

Continuation in the major requires successful completion of PSY 2012 Introduction to Psychological Science, PSY 3204 Psychological Statistics (or another approved Statistics course), and PSY 3213 Research Methods in Psychology, with at least a grade of "C" (not "C-") and have a grade point average for those three courses of 2.5 or higher.

Majors must complete at least 34 semester hours in the field. A minimum grade of "C-" or better must be attained in each course in the major, except for PSY 3204 (or other qualifying statistics course) and PSY 3213, where a "C" or better is required. Although a "C-" is allowable for individual courses, a major GPA of 2.0 minimum is required for graduation. All majors must complete:

#### Requirements for Psychology Majors

1. 2000/3000 Level Requirement (6 semester hours)  
PSY 2012 Introduction to Psychological Science (if not already taken at a community college)  
PSY 3204 Psychological Statistics
2. Methods Course Requirement (7 semester hours)  
PSY 3213 Research Methods in Psychology and one of the following:  
CLP 4433 Psychological Tests and Measurement  
PSY 4205 Experimental Design and Analysis
3. 4000 Level Requirement (21 semester hours)

Courses in categories 1 and 2 (listed above) must be completed before any 4000 level courses are attempted. Successful completion of 7-8 additional Psychology courses numbered at the 4000 level selected as follows: At least two courses from each of the two groups below:

#### Group I

- EXP 4204C Perception
- EXP 4404 Psychology of Learning
- PSB 4004C Physiological Psychology
- EXP 4304 Motivation
- EXP 4680C Cognitive Psychology

#### Group II

- CLP 4143 Abnormal Psychology
- INP 4004 Industrial Psychology
- SOP 4004 Social Psychology

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DEP 4053 Developmental Psychology  
PPE 4003 Personality  
and any 3-4 additional courses numbered at the upper-level.

**Note:**

a. No more than a total of 3 hours of the following course may count toward the major:

PSY 4913: Directed Study

b. PSY 4932 Honors Seminar may not count toward the major

Biological Science is also required. Otherwise, students majoring in psychology are encouraged to complete a varied undergraduate program.

A prerequisite for all 4000-level courses is a grade of “C” (not “C-”) or better in both, PSY 3204 (or other qualifying statistics course) and PSY 3213, not “C-”. For students who minor in Psychology, a grade of “C” or better in any college-level statistics course will substitute for PSY 3213.

For students majoring in Interdisciplinary Social Sciences, any college-level statistics course with a grade of “C” or better may serve as prerequisite for 4000 level courses in Psychology but does not substitute for the PSY 3213 requirement.

## Requirements for the Minor in Psychology

A minor in Psychology consists of a minimum of 18 credit hours, comprising PSY 2012, any Statistics course or PSY 3213, and any four upper-level psychology courses except PSY 4913 and DEP 3103. Students minoring in Psychology must obtain a “C” or better in any college level statistics course or PSY 3213. A GPA of 2.00 or better in the minor is required for certification and students must complete at least 8 credit hours toward the minor in residency at USF. The purpose of the minor is to help students majoring in other disciplines to obtain an appropriate psychology background that will complement their work in their major.

## Requirements for the Minor in Sociology

A minor in Sociology consists of a minimum of 18 credit hours in Sociology, at least 12 of which must be USF credits. Minors must take SYG 2000 Introduction to Sociology and SYA 3110 Classical Theory. No more than three hours of SYA 4910 “Individual Research” may count toward the 18 hour minimum. Only courses in which a grade of “C-” or better is attained will count toward the minimum hours.

## General Requirements for B.A./B.S. Degree Within the College of Human and Social Sciences

The College of Human and Social Sciences offers two undergraduate degrees: Bachelor of Arts and Bachelor of Science.

### ***IT IS EACH STUDENT’S RESPONSIBILITY TO MEET GRADUATION REQUIREMENTS:***

1. Complete at least 120 accepted semester hours, with a minimum USF cumulative GPA and overall GPA of 2.00. (Important! All grades including “D”s and “F”s are used to calculate GPA’s for students in the College of Human and Social Sciences.)
2. Maintain major GPA of 2.00 in USF coursework.
3. Complete the Foreign Language Entrance Requirement. Students pursuing a B.A. degree must complete the Foreign Language Exit Requirement.
4. Students enrolling in a college must satisfy Articulation Resolution 6A-10.30 (Gordon Rule) concerning computation and communication. Transfer students who enter the University of South Florida with 60 or more semester hours from a regionally accredited institution are considered to have met the communication portion of the Gordon Rule.
5. Complete Foundations of Knowledge and Learning Core Curriculum Requirements (for more information, see section titled “Core Curriculum Requirements.”)  
Core Curriculum Requirements of 36 hours credit:
  - a. English Composition 6
  - b. Mathematics and Quantitative Reasoning 6
  - c. Natural Sciences 6
  - d. Social and Behavioral Sciences 6
  - e. Human Cultural Diversity Global Context 3

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f. Fine Arts	3
g. Humanities	<u>6</u>
	<b>36</b>

### Exit Course Requirements

a. The Capstone Course	3
b. The Writing Intensive Course	<u>3</u>
	<b>6</b>

- When double majoring, a maximum of 2 courses or 8 hours may be used to satisfy requirements between majors. Students should check with the college and respective departments when pursuing more than one major/degree.
- Maximum of 20 hours of S/U option. S/U contracts must be negotiated in writing within the first three (3) weeks of the term. None of the 20 credits may be taken in the student's major unless S/U is the only grading option. Coursework fulfilling the Gordon Rule requirement may not be taken S/U.
- The Audit option is available only during the first 5 days of classes.
- Complete at least 9 semester hours at a Florida public university in the Florida State University System during summer terms if entering USF with fewer than 60 semester hours.
- Complete all major course requirements.
- Complete a minimum of 48 hours of upper-level courses (numbered 3000 or above).
- Thirty (30) of the last 60 semester hours must be completed at USF to fulfill the residency requirement.

### **BACHELOR OF GENERAL STUDIES DEGREE (BGS)**

USF's Bachelor of General Studies Degree (BGS) is a customized, interdisciplinary degree that provides students with options to choose an appropriate academic program that fits their educational and professional goals. The BGS program will provide mid-career adult students with the opportunity to integrate completion of the baccalaureate degree into their established lifestyle.

Admitted USF Lakeland, students must:

- Have completed at least 60 credit hours at a regionally accredited college or university
- Have been out of school for approximately three (3) or more years
- Complete a screened application process conducted by a program advisor
- Be in good standing with former educational institutions
- Demonstrate ability and desire to complete the degree (personal statement, letters of recommendation)
- Complete the necessary coursework to reach 120 credit hours. The 120-hour requirement includes completing the following:
  - FKL (General Education). FKL requirements or approved equivalents – unless GE credits were completed at another Florida institution
  - Residency requirements (at least 30 hours earned at USF Lakeland)
  - One or two disciplinary concentrations selected by the student and approved by the advisor
  - All Exit requirements
  - All foreign language requirements
  - A minimum of 48 semester hours of upper-level work (courses numbered 3000 and above)

Rather than choosing a traditional major, BGS students may choose from a number of established plans of study. BGS students complete 18-24 credits (core courses and electives) within selected concentrations.

#### **Aging Studies Concentration Requirements:**

##### Required Course:

- GEY 3601: Physical Changes in Aging (3)
- GEY 3625: Sociocultural Aspects in Aging (3)
- GEY 4612: Psychology of Aging (3)

##### Elective Course Options:

- GEY 4935: Senior Seminar in Gerontology (3)
- GEY 4322: Gerontological Case Management (3)

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GEY 4327: Pol. Practice LTC (3)  
GEY 4328: Health Care Operations (3)  
GEY 4329: Reg/Clinical Ops (3)  
GEY 4340: Retirement and LTC Housing for the Elderly (3)  
GEY 4360: Gerontological Counseling (3)  
GEY 4401: Research Methods in Gerontology (3)  
GEY 4608: Alzheimer's Disease Management (3)  
GEY 4628: Race, Ethnicity and Aging (3)  
GEY 4635: Business Management in Aging Society (3)  
GEY 4641: Death and Dying (3)  
GEY 4647: Ethical & Legal Issues in Aging (3)

### **General Business Concentration Requirements**

ACG 2021: Financial Accounting (3)  
ACG 2071: Managerial Accounting (3)  
ECO 2013: Macroeconomics (3)  
ECO 2023: Microeconomics (3)  
FIN 3403: Principles of Finance (3)  
MAN 3025: Principles of Management (3)  
MAR 3023: Basic Marketing (3)  
GEB 4890: Strategic Management & Decision Making (3)

### **Information Technology Concentration Requirements:**

#### Required Courses:

CGS 3303: IT Concepts (3)  
EEL4782 & L: IT Networks & Lab (4)  
CIS 4935: IT Senior Project (3-5)

#### Select four additional courses:

Students select 14-15 upper-level credits that support their educational or career goals. A program of study must be prepared by the student and approved by the department before taking courses beyond the two required courses.

Selection of some courses may require that the student fulfill additional prerequisite requirements.

### **Leadership Studies Concentration Requirements:**

#### Core Requirements:

LDR 2010: Fundamentals of Leadership (3) or LDR 3331: Leading in the Workplace (3)  
LDR 4104: Theories and Foundations of Leadership (3)

#### Personal Dimensions of Leadership (one of the following:)

LDR 4114: Contemporary Readings on Leadership (3)  
LDR 4564: Images of Leadership in Print and Film (3)  
LDR 4204: Ethics and Power in Leadership (3)  
LDR 3930: Multicultural Leadership I (permit only) (3)

#### Group Dimensions of Leadership (one of the following:)

LDR 4164: Organizational Dynamics in Leadership (3)  
LDR 3263: Community Leadership Practicum (3)  
COM 3120: Organizational Communication (3)  
LDR 3214: Leadership in the Fraternal Movement (permit only) (3)  
LDR 3930: Diversity & Leadership (3)  
LDR 3930: Multicultural Leadership II (permit only) (3)  
LDR 3930: Special Topics - Group/Team/Organization (3)

#### Global Dimensions of Leadership (one of the following)

LDR 4230: Global Leadership (3)  
LDR 3930: Contemporary Issues in Leadership (3)  
LDR 3930: Leadership and Social Change (3)  
LDR 3930: Special Topics - Global (3)

All BGS students complete a capstone experience identified by the home department of each concentration. Each department may develop specific capstone courses or prefer to enroll their students in a BGS capstone course developed by the faculty members on the BGS Advisory Committee.

# COLLEGE OF TECHNOLOGY AND INNOVATION

## MISSION STATEMENT

The mission of the College of Technology and Innovation is to develop in each of its students a broad interdisciplinary technical knowledge and capability to meet leadership challenges of the twenty first century world. It is important for students to not only understand and apply useful technology but to develop both the vision and practical knowledge across the academic disciplines for their individual success and to the benefit of the community.

### Required Prerequisites for Entering College of Technology and Innovation Programs

Once a student has been admitted to the College of Technology and Innovation, he/she must then seek admission into one of the academic divisions. Division admissions requirements vary by program. Students admitted to the University of South Florida and the College of Technology and Innovation must qualify for the program of their choice by completing the courses and successfully meeting the published requirements below. Unless otherwise stated, the minimum acceptable grade in math and science prerequisites is a grade of "C" or higher ("C-" is insufficient). Minimum acceptable grades for math, science and technical courses, as they pertain to specific degree programs, are defined by the academic divisions. Students are *strongly encouraged to familiarize themselves with division guidelines*.

Prior to being admitted to a division, a student may be permitted to take no more than two division courses. Once admitted, individual divisions may have continuation requirements which specify minimum performance standards in core courses for the discipline which must be met before further registration in the Department is granted.

The College of Technology and Innovation offers degrees in several disciplines from its three divisions:

- The Engineering and Applied Sciences Division
- The Information Technology Division
- The Innovation Management Division

## DIVISION OF ENGINEERING AND APPLIED SCIENCES

The Division of Engineering and Applied Sciences offers an undergraduate Engineering degree program in Industrial Engineering for students prepared with the Math and Science prerequisites for a traditional Bachelor's degree in Industrial Engineering (BSIE). This leads to a wide spectrum of professional engineering and business opportunities.

For students prepared with an Associate of Science Degree (AS), the Division offers a Bachelor's degree (BSAS) in Applied Science that may be earned in Industrial Operations (IO). This degree is designed to allow completion of a university degree with a concentration in professional knowledge of industrial operations and leadership.

### INDUSTRIAL ENGINEERING PROGRAM (BSIE)

Industrial Engineering is about choices and gives you the opportunity to work in different types of businesses and in various areas such as management decision-making, manufacturing, work design, quality control, facility design, engineering management, finance, personnel, sales and marketing. As an Industrial Engineer, you will focus on improving processes and systems, thereby improving a company's quality, productivity and profit. USF Lakeland offers the final two years of the BSIE Degree.

### Engineering Student Computer Recommendations

It is strongly recommended that engineering students obtain a laptop (suggested) or desktop computer prior to the semester in which specialization courses commence. As a USF Lakeland student, you will be able to make computer and software purchases through the USF Computer Store.

### Three-Year Upper Division Curriculum in Industrial Engineering

*Mathematics:*

**USF**

MAC 2281  
MAC 2282  
MAC 2283

**C/C**

MAC 2311/MAC 2281 (4)  
MAC 2312/MAC 2282 (4)  
MAC 2313/MAC 2283 (4)

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MAP 2302

MAP 2302/ MAP X305(3)

*Natural Sciences:*

**USF**

CHM 2045/CHM 2045L  
045L (4)

CHM 2046/CHM 2046L

PHY 2048/PHY 2048L

PHY 2049/PHY 2049L

Please be aware of the immunization, foreign language, continuous enrollment policies of the university, and qualitative standards required.

**C/C**

CHM X045/L or CHM X045C or CHS X440/CHM

CHM X046/L or CHM 046C

PHY X048C or PHY X043/X048L (4)

PHY X049C or PHY X044//PHY X049L (4)

## **Industrial Engineering (EIE), BSIE,**

*The curricula and courses presented below are a guide for remaining on track towards the bachelor's degree. Please note that alternative courses exist for many of the courses and that this is not an official degree plan. It is an advising tool and students should consult with an advisor in their major to ensure that all degree requirements are met.*

### **Fall Semester – Year 1 (Junior Level)**

EGN 3311 Statics	3
EGN 3443 Probability and Statistics for Engineers	3
EGN 3373 Introduction to Electrical Systems I	3
EGS 1113 Introduction to Design Graphics	3

### **Spring Semester - Year 1 (Junior Level)**

EGN 3321 Dynamics (Engineering Science Elective)	3
EGN 3343 Thermodynamics I	3
EGN 3615 Engineering Economics with Social and Global Implications	3
COP 2510 Programming Concepts	3

### **Summer Semester –Year 1 (Junior Level)**

EGN 4450 Introduction to Linear Systems	2
XXX XXXX Industrial Engineering Elective	3

### **Fall Semester - Year 2 (Senior Level)**

ENC 3246 Engineering Communication	3
EIN 4312C Work Analysis	3
EIN 4621 Manufacturing Processes	3
ESI 4312 Deterministic O. R.	3

### **Spring Semester - Year 2 (Senior Level)**

ESI 4221 Industrial Statistics and Quality Control	3
ESI 4313 Probabilistic O. R.	3
EIN 4601C Automation and Robotics	3
EIN 4243C Human Factors	3

### **Fall Semester - Year 3 (Senior Level)**

EIN 4333 Production Control	3
EIN 4364C Facilities Design	3
ESI 4244 Design of Experiments	3
XXX XXXX Industrial Engineering Elective	

### **Spring Semester - Year 3 (Senior Level)**

ESI 4523 Industrial Systems Simulation	3
EIN 4891 Capstone Design	3
EGN 3365 Materials Engineering I	3

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EIN 4352 Engineering Cost Analysis

3

Total of 77 upper division courses.

The writing intensive and capstone design exit requirements are fully met through ENC 3246 and EIN 4891.

## Professional Registration

Students who have attained senior status, and are in good academic standing in an ABET accredited Engineering Program, are eligible to register for examinations leading to licensure as Professional Engineers. The first examination, called the Fundamentals of Engineering (FE) Exam, is offered by the Florida Board of Professional Engineers and is usually taken the semester prior to graduation. In addition to the knowledge acquired through the engineering curriculum, many students take advantage of review courses offered by the College of Engineering's distance education program, APEX, to prepare for the Fundamentals of Engineering Examination. Registering for the FE exam during the senior year is strongly encouraged for students graduating with an engineering degree.

## Education and Internship Programs

A variety of industries and government agencies have established cooperative education and internship programs for engineering students to provide them the opportunity to become familiar with the practical aspects of operations, engineering, research, and careers. Students following an intern program usually encounter no problems in scheduling their courses, since required Social Science and Humanities, Mathematics and Science, and Engineering common courses are offered every semester. Students normally apply for participation in this program during their junior year and pursue actual employment during their senior year. The senior year may be pursued on a full-time study basis, since many specialization courses are not offered every semester. Internship is encouraged as valuable applied experience and is a major advantage in a career job search.

## BACHELOR OF SCIENCE IN APPLIED SCIENCE (APS)

Workforce projections for the 21st century indicate that there will be an ongoing need for people with specific skills and abilities to fill Florida's growing number of specialized, scientific, industrial and technological positions. Florida's two-year colleges offer many exceptional programs that meet these demands through their Associate in Science (A.S.) degrees. Although these applied and technical degrees provide excellent preparation for jobs that require specific knowledge, skill and ability, they have not generally transferred very efficiently into four-year Bachelor's degree programs. The Bachelor of Science in Applied Science (BSAS) has been developed by USF under certain provisions of Florida legislation to remove constraints from the transfer process, recognize past coursework as transfer credit to the university and afford exciting new opportunities for A.S. degree holders to pursue and acquire a distinctive "capstone" USF Bachelor's degree.

BSAS students plan their program in ongoing consultation with an academic advisor who helps students design their individualized program of study.

### Requirements for the Major in Bachelor of Science in Applied Science

This degree program is available ONLY to Associate in Science (A.S.) graduates from a Florida public community or state college.

Within the 60 credit hours of USF coursework beyond the A.S., BSAS students will complete:

- A minimum of 48 credit hours of upper-level (3000-4999) courses
- At least 30 hours of the last 60 credit hours at USF
- Foreign language requirement (can be satisfied by two years of high school foreign language credit or 8 college credit hours in a single foreign language)
- Community College Block Credit           42 (Transferred from A.S.)
- Community College General Education   18 (Transferred from the A.S.)
- USF General Education                    18
- USF Exit Courses                           6
- USF Area of Concentration\*           18-21

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- USF Electives\*\* 15-18  
**Total BSAS Credit Hours** **120**

\*Note: All BSAS Areas of Concentration are at least 18 credit hours—some require 21 credit hours.

\*\*Elective credit hours may vary slightly, but will not require students to exceed a total of 120 credit hours for completion of the BSAS degree.

Online programs: The only BSAS areas of concentration available completely online are Criminal Justice, Industrial Operations, and Information Technology.

## Areas of Concentration:

### **BSAS – Criminal Justice (ACJ) consists of 18 credit hours:**

CCJ 3117 Theories of Criminal Behavior	3
CCJ 4934 Seminar in Criminology	3
Plus four of the following Criminology electives:	
CJL 3110 Substantive Criminal Law	3
CJE 4114 American Law Enforcement Systems	3
CCJ 4450 Criminal Justice Administration	3
CJC 4010 American Correctional Systems	3
CJE 4010 The Juvenile Justice System	3
CCJ 3621 Patterns of Criminal Behavior	3
CJC 4166 Alternatives to Incarceration	3
CJL 4410 Criminal Rights & Procedures	3
CJT 4100 Criminal Investigations	3
CCJ 4933 Selected Topics in Criminology	3
CCJ 4604 Abnormal Behavior & Criminality	3
CCJ 3701 Research Methods in Criminal Justice	3

### **BSAS – Early Childhood Development (AEC) consists of 18 hours:**

Admission based on coursework comparable to that completed by associate degree graduates of the Early Childhood Education and Management programs at Polk State College and Hillsborough Community College

EDF 4124 Child Growth & Learning	3
EDG 4909 Young Children w/ Special Needs	3
HSC 3301 Health, Safety, Nutrition & Motor Skills	3
EEC 4303 Creative & Affective Experiences	3
EEC 4408 Child, Family & Teacher Relations	3
PAD 4419 Personnel & Supervision	3

### **BSAS – Leadership Studies (ALS) consists of 18 hours:**

#### **Core Requirements (6 hours) – Personal Systems**

LDR 2010 Fundamentals of Leadership	3
OR	
LDR 3331 Leading in the Workplace	3
PLUS	
LDR 4104 Theories of Leadership	3

#### **Personal Dimensions of Leadership (3 hours)**

LDR 4114 Survey of Leadership Readings	3
LDR 4564 Images of Leadership in Print and Film	3
LDR 4204 Ethics and Power in Leadership	3
LDR 3930 Multicultural Leadership I (permit only)	3

#### **Group Dimensions of Leadership (3 hours)**

LDR 4164 Organizational Dynamics in Leadership	3
LDR 3263 Community Leadership Practicum	3
COM 3120 Organizational Communication	3
LDR 3214 Leadership in Fraternal Movement (permit only)	3
LDR 3930 Diversity & Leadership	3
LDR 3930 Multicultural Leadership II (permit only)	3

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LDR 3930 Special Topics - Group/Team/Organization 3

## **Global Dimensions of Leadership (3 hours)**

LDR 4230 Global Leadership 3  
LDR 3930 Contemporary Issues in Leadership 3  
LDR 3930 Leadership and Social Change 3  
LDR 3930 Special Topics - Global 3

## **BSAS-Industrial Operations (AIO) consists of 18 hours:**

The concentration in Industrial Operations will equip you with knowledge in management, work design, and quality control. The general engineering and technology courses taken at a lower-level at technical schools or as part of professional or military training will not be accepted. See an advisor for unusual cases.

Prerequisites for courses in the Industrial Operations courses:

MAC1105 College Algebra  
STA 2023 Statistics  
COP 2510 Programming Concepts or Equivalent

Requirements for the concentration:

ETG 3612 Operations Management 3  
MAN 3025 Principles of Management 3  
ACG 3074 Managerial Accounting for Non-Bus. Majors 3  
OR  
EIN 4352 Engineering Cost Analysis 3  
PLUS  
EIN 3241 Work Design & Ergonomics I 3  
EIN 4242 Work Design & Ergonomics II 3  
ETI 4116 Industrial Quality Control 3

## **BSAS - Information Technology (ATC) consists of 19-21 credit hours:**

Entrance Requirement for IT concentration: Students must have completed the A.S. degree with a major in Information Technology, Computer Science, Networking, or a closely related field.

### **Required Courses:**

CGS 3303 IT Concepts 3  
EEL 4782 Computer Information Networks for IT 3  
EEL 4782L Information Networks Laboratory for IT 1  
CIS 4935 Senior Project in Information Technology (3-5)

### **Select four additional courses:**

Students select four courses that support their educational or career goals. These could aim toward a specialization in IT (such as application development, web design, networking, information security, etc.) or a particular industry segment (health care, education, manufacturing, logistics, etc.).

Please note: selection of some courses may require that the student fulfill additional prerequisite requirements in the BSAS concentrations. A Program of Study as described above must be prepared by the student and approved by the department *before* taking courses beyond the two required courses.

## **Division of Information Technology Bachelor of Science in Information Technology**

The mission of the Information Technology Program is to provide high-quality educational opportunities for students interested in pursuing careers in the broad range of fields that support today's computer/information-based society and economy. Additionally, to utilize the resources of the program to provide service to society; and to emphasize to students the need for lifelong learning, ethical conduct and an understanding of the diverse social context in which Information Technology is practiced. Courses in this major are available online.

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Specifically the program aspires to:

1. Lead to the advancement of Information Technology through nationally recognized education at the undergraduate level, as well as technology transfer to regional industries and businesses;
2. Prepare students for full and ethical participation in a diverse society and encourage lifelong learning;
3. Educate undergraduates in the best practices of the field as well as integrate the latest research and practices into the curriculum;
4. Emphasize the development of problem solving and communication skills as an integral component of the educational process and the later practice of the discipline;
5. Provide quality learning experiences through highly interactive techniques of course delivery that will include the use of electronic support equipment as well as newly developing distance learning technologies.

## Objectives

### Information Technology program graduates will:

1. Have the requisite education and skills to be immediately employable as professionals in our computer/information-based society
2. Be prepared to enter into graduate studies in a number of related graduate programs
3. Be ethical and responsible members of their profession and society as a whole
4. Be well founded in the variety of sub-disciplines that comprise Information Technology which include basic principles of computation, mathematics, science and engineering.

Students completing the IT program will qualify for a broad range of positions in computer-intensive businesses and industry such as: programmer analyst, systems analyst, database administrator, network administrator, computer resource manager, systems development manager, and information technology management, to name a few.

In addition to the University's graduation requirements, the program has the following policies:

1. Mandatory academic advising of each student each term,
2. Exit interviews as a graduation requirement for all students, and
3. Only grades of "C" and above in IT courses can be used to fulfill graduation requirements.

Unless stated otherwise, a grade of "C" is the minimum acceptable grade.

Some courses required for the major may also meet General Education Requirements.

PSY	XXXX	Any Psychology Course
STA	X023	Statistics
ECO	X013	Economics (Macroeconomics)
CGS	XXXX	Any Database Course
COP	2XXX	Any Computer Programming Course
COP	2XXX	Any Object-Oriented Computer Programming Course
MAC	XXXX	Pre-Calculus Course
PHY	XXXX	Any Physics Course
M**	XXXX	Discrete Mathematics Course

The schedule that follows indicates how a diligent student, who can devote full time to coursework, can satisfy requirements in four academic years. Students without a solid foundation, or those who cannot devote full time to academics, should plan for a slower pace.

### Semester I

CGS	2100	Computers in Bus.	3
ENC	1101	Composition I	3
MAC	1140	Precalculus Algebra	3
Gen. Ed.			<u>6</u>
Total			15

### Semester II

COP	2510	Programming Concepts	3
ENC	1102	Composition II	3

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MAD	3100	Discrete Math	3
ECO	2013	Economic Principles (Macro.)	3
PSY	2012	Psychological Science I	<u>3</u>
Total			15

### Semester III

Natural Science			3
COP	XXXX	OO Programming (e.g., C++)	3
Electives			<u>9</u>
Total			15

### Semester IV

STA	2023	Introductory Statistics I	3
PHY	2020	Conceptual Physics	3
Fine Arts			3
Electives			<u>6</u>
Total			15

### Semester V

COP	3515	Program Design for Information Technology	3
ENC	3246	Communication for Engineers	3
INR	3033	International Political Cultures	3
CGS	3303	IT Concepts	3
CEN	3722	Human Computer Interfaces for IT	<u>3</u>
Total			15

### Semester VI

CDA	3101	Computer Organization for Information Technology	3
EEL	4782	Computer Information Networks for IT	3
EEL	4782L	Information Networks Lab for IT	1
EEL	4854	Data Structures and Algorithms for IT	3
ENC	4260	Advanced Technical Writing	3
IT Approved Electives			<u>3</u>
Total			16

### Semester VII

CIS	4703	Database Systems for IT	3
CEN	4031	Software Engineering Concepts for IT	3
COP	4610	Operating Systems for IT	3
COP	4610L	Operating Systems Lab for IT	1
IT Approved Electives			<u>6</u>
Total			16

### Semester VIII

COP	4930	Information Technology Seminar	1
CIS	4935	Senior Project in IT	3-5
CIS	4253	Ethical Issues for Information Technology	3
IT Approved Electives			<u>6</u>
Total			13-15

## INFORMATION TECHNOLOGY (IT) MINOR PROGRAMS

There are two IT Minor options available.

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The ***IT General Minor*** (15 semester hours) is aimed at providing a good understanding of the concepts underlying Information Technology while enabling the student to choose four elective topics in which to specialize. These electives encompass a wide spectrum of topics such as programming, networking and web design, Human Computer Interface and Security Management. The outcome of this program is to build a solid culture of IT technologies and disciplines from scratch.

The ***IT Technical Minor*** (24 semester hours) enforces basic scientific pre-requisites and requires interested students to attend three core IT courses meant to provide them with the conceptual and technical basis necessary to successfully dwell in more advanced topics. The elective part of the IT Technical Minor is composed of two electives to be chosen from a larger set of courses including Data Base Systems and Operating System. Successful students are expected to develop a conceptual understanding of the IT field while developing programming skills they may apply to strengthen their major.

### IT GENERAL MINOR

**Required Course:**

CGS	3303	IT Concepts	3
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**Electives (choose four from list):**

CDA	3101	Computer Organization for IT	3
CEN	3722	Human Computer Interfaces for IT	3
CIS	4361	IT Security Management	3
CIS	4412	IT Resource Management	3
COP	3515	Program Design for IT	3
EEL	4782	Computer Information Networks for IT	3
EEL	4782L	Information Networks Laboratory for IT	1
EEL	4854	Data Structures and Algorithms for IT	3
ETG	4931	Special Topics in Technology I	1-5
ETG	4932	Special Topics in Technology II	<u>1-5</u>
<b>TOTAL</b>			<b>15</b>

### IT TECHNICAL MINOR

**Prerequisite Courses:**

COP	2510	Programming Concepts or equiv.	3
COT	3100	Introduction to Discrete Structures or equiv.	3
PHY	XXXX	Physics	3

**Required Courses:**

CGS	3303	IT Concepts	3
COP	3515	Program Design for IT	3
EEL	4854	Data Structures and Algorithms for IT	3

**Electives (choose four from list):**

CDA	3101	Computer Organization for IT	3
CEN	3722	Human Computer Interfaces for IT	3
CEN	4031	Software Engineering Concepts for IT	3
CIS	4361	IT Security Management	3
CIS	4412	IT Resource Management	3
COP	4610	Operating Systems for IT	3
COP	4610L	Operating Systems Lab for IT	1
COP	4703	Database Systems for IT	3
EEL	4782	Computer Information Networks for IT	3
EEL	4782L	Information Networks Laboratory for IT	1
ETG	4931	Special Topics in Technology I	1-5
ETG	4932	Special Topics in Technology II	<u>1-5</u>
<b>TOTAL</b>			<b>24</b>

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## POST-BACCALAUREATE CERTIFICATE PROGRAMS IN INFORMATION TECHNOLOGY (IT)

There are two Post-Baccalaureate Information Technology (IT) Certificates available. Both Certificates are designed for students who hold bachelor's degrees in fields other than IT, but do not seek either a master's degree or a complete undergraduate degree in IT.

The ***IT Management Certificate*** (15 semester hours) is designed to provide the student an application-oriented managerial background in IT. The typical student pursuing this certificate is not looking to change careers, but rather looking to enhance his/her technical abilities in their existing job. A four-year Bachelor's degree plus some prerequisites are required to enter the IT Management Certificate Program.

The ***IT Professional Certificate*** (30 semester hours) is designed to help students change careers, i.e. begin a new career as an IT Professional. All classes (15 hours) taken in the IT Management Certificate directly apply toward the IT Professional Certificate. Therefore, each student having completed the IT Management Certificate will only need 15 additional hours to complete the IT Professional Certificate. However, certain additional prerequisites may be required of the student prior to taking the advanced technically oriented classes contained in the IT Professional Certificate.

### IT MANAGEMENT CERTIFICATE

The prerequisites to enter the IT Management Certificate program are a four year undergraduate degree plus the following:

MAC xxxx	Pre-Calculus	3
STA 2023	Intro. To Statistics	3
Any Basic Computer Skills Course		3
(Word Processing, Spreadsheets, Windows, etc.)		

NOTE: The course numbers may be different depending on the university. IT advisors will make the determination whether or not the student has satisfied these requirements based on supportive material (such as catalog descriptions, official letters, etc.) supplied by the student.

The student must complete 15 hours selected from the following:

CEN 3722	Human Computer Interfaces for IT	3
CGS 3823	IT Web Design	3
CGS 3845	Electronic Commerce	3
CIS 4361	IT Security Management	3
CIS 4412	IT Resource Management	3
CIS 4935	Senior Project in Information Technology	3-5
COP 4930	Information Technology Seminar	1
ENC 4260	Advanced Technical Writing	3
ETG 4931	Special Topics in Technology I	1-5
ETG 4932	Special Topics in Technology II	1-5
IT Current Topics		3
IT Approved Elective		3

### IT PROFESSIONAL CERTIFICATE

The prerequisites to enter the IT Professional Certificate program are a four year undergraduate degree plus the following:

STA 2023	Introduction to Statistics	3
CGS xxxx	Any Data Base	3
COP 2xxx	Programming Concepts	3
COP 2xxx	Object-Oriented Programming	3
MAC xxxx	Pre-Calculus	3
MAC xxxx	Discrete Mathematics	3

NOTE: The course numbers may be different depending on the university. IT advisors will make the determination whether or not the student has satisfied these requirements based on supportive material (such as catalog descriptions, official letters, etc.) supplied by the student.

After admission to the IT Professional Certificate program, the student must complete the following 30 hour program:

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**Required courses for the IT Professional Certificate (13 credit hours):**

CDA 3101	Computer Organization for IT	3
COP 3515	IT Program Design	3
COP 4610	Operating Systems for IT	3
COP 4610L	Operating Systems Laboratory for IT	1
EEL 4854	Data Structures and Algorithms for IT	3

**Electives (17 credit hours):**

CEN 3722	Human Computer Interfaces for IT	3
CEN 4031	Software Engineering Concepts for IT	3
CGS 3823	IT Web Design	3
CGS 3845	Electronic Commerce	3
CIS 4361	IT Security Management	3
CIS 4412	IT Resource Management	3
CIS 4703	Database Systems for IT	3
CIS 4935	Senior Project in IT	3-5
COP 4930	IT Seminar	1
EEL 4782	Computer Information Networks for IT	3
EEL 4782L	Information Networks Laboratory for IT	1
ENC 4260	Advanced Technical Writing	3
ETG 4931	Special Topics in Technology I	1-5
IT Current Topics		3
IT Approved Elective		<u>3</u>
<b>Total</b>		<b>30</b>

## UNDERGRADUATE CERTIFICATE PROGRAMS IN INFORMATION TECHNOLOGY (IT)

There are two undergraduate specialization certificates available to BSIT or BSAS/BGS IT Concentration students. To earn either of these certificates, a student must complete a specified list of courses, earning in each course a minimum grade of "B". All prerequisites for these courses must also be satisfied.

### CERTIFICATE OF SPECIALIZATION IN INFORMATION SECURITY

The student must complete five courses (15 credit hours) in Information Security. The certificate will be issued when a student has earned and received no less than a grade of "B" in each of the five classes in their concentrated certificate program.

The student must complete **15 hours** selected from the following:

CIS 3360	Principles of Information Security	3
CIS 3362	Cryptography and Information Security	3
CIS 3374	Architecting Operating Systems Security	3
CNT 3403	Network Security and Firewalls	3
CIS 4365	Computer Security Policies & Disaster Recovery	3
CIS 4361	Information Security Management	3
ETG 493x	Special Topics in Information Security	3

### CERTIFICATE OF SPECIALIZATION IN WEB DEVELOPMENT

The student must complete five courses (15 credit hours) in Web Development. The certificate will be issued when a student has earned and received no less than a grade of "B" in each of the five classes in their concentrated certificate program.

The student must complete 15 hours selected from the following:

CGS 3823	Web Page Design	3
COP 4703	Database Systems	3
COP 4834	Data-Driven Web Sites	3
CGS 4786	Web Development Tools	3
CGS 3845	E-Commerce	3
COP 4816	XML Applications	3

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COP	4814	Web Services	3
ETG	493x	Special Topics in Web Development	3

## DIVISION OF INNOVATION MANAGEMENT

The Division of Innovation Management offers courses of study leading to both undergraduate and graduate degrees. All degree programs in the Division of Innovation Management are fully accredited by AACSB International—The Association to Advance Collegiate Schools of Business.

The undergraduate curriculum that leads to a Bachelor of Arts or Bachelor of Science degree is composed of several segments: (1) broad general education in the arts, humanities and sciences; (2) the common body of knowledge for management responsibilities; and (3) specialized areas of concentration in Accounting, Finance, General Business, International Business, Management, Management Information Systems, and Marketing. Through flexibility in its requirements, the Division is able to satisfy the different interests and career objectives of students with diverse backgrounds.

### Undergraduate Admission to the Division

Admission to the Division of Innovation Management is based upon availability of faculty and space within each discipline. The Division is an upper-level, limited access college, which means that it has admission requirements **in addition to** those of the University in general. Students interested in pursuing a degree in the areas offered by the Division of Innovation Management must complete the required prerequisites for entering the Division in addition to other related criteria listed in 1-4 below.

### Requirements for Admission to the Division of Innovation Management

1. Students must satisfy the following criteria:
  - a. Minimum of 60 semester hours of college credit earned.
  - b. Minimum of 2.5 cumulative grade point average on all college-level work and a minimum of 2.0 on all credit attempted at USF, including any prior to renewal.
  - c. Completion of the following State Mandated Common Prerequisites (or equivalents) with a grade of C- or higher in each course and an overall 2.0 GPA:
    - \*ACG X021/ACG X022 Financial Accounting (or ACG X001 & ACG X011)
    - \*ACG X071 Managerial Accounting (or X301)
    - CGS X100<sup>1</sup> Computers in Business (or acceptable Substitute, i.e., CGS X100C, CGS X530, CGS X570, CGS X531, CGS X0000, MAN X812)
    - ECO X013 Principles of Macroeconomics
    - ECO X023 Principles of Microeconomics
    - MAC X233 Elementary Calculus or MAC 2230
    - STA X023 Introductory Statistics or QMB X100(or STA X122 although STA X023 and QMB X100 are preferred).  
<sup>1</sup>or demonstrated competency.
  - d. In computing entry grade point average, all business and economics courses taken for “S” or “U” grades will be converted to “C” or “F”, respectively.
2. Students working toward meeting the limited access criteria will be permitted to enroll in all foundation courses in Business (listed below) except GEB 4890, provided they have completed 60 semester hours, a minimum of 2.4 overall GPA, and have met course prerequisites.
3. A minimum score of 550 on paper and pencil or 213 on computerized TOEFL is required, when applicable.
4. Students must be admitted to the Division of Innovation Management at least one term before their anticipated graduation date.

## BACCALAUREATE LEVEL DEGREE PROGRAMS

### General Requirements for B.A./B.S. Degree in Business

Students must satisfactorily complete a minimum of 120 semester hours. Of the minimum 120, at least 60 hours must be business courses, and a minimum of 54 hours must be non-business courses (i.e., all courses not normally offered in the Division of Innovation Management). Additional electives may be required to reach a minimum of 120 hours and can be either business or non-business.

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As a part of the 120-hour requirements for the B.A. or B.S. degree, the following criteria also apply:

**GPA:** A minimum grade-point average of 2.0 must be achieved in the following areas:

- The major and minor fields
- College foundation courses
- All USF coursework
- Overall GPA (USF and all transfer work)

**Gordon Rule:** Students must have satisfactorily completed the writing and computation course requirements of Gordon Rule.

**Foreign Language:** For a Bachelor of Arts degree, students must demonstrate competency in a foreign language (refer to the Academic Policies and Procedures section of this catalog). The Division of Innovation Management does not approve American Sign Language for the Foreign Language Exit Requirement.

**Residency:** Division of Innovation Management residency requirements for graduation exceed the minimum requirements established for USF. Students are required to complete satisfactorily at USF a minimum of 50 percent (30-33 semester hours depending on major) of required business courses, including 12-18 semester hours in the major field. Normally, independent study and independent research courses do not fulfill this requirement.

**International Course Requirement:** All business students are required to select at least one course that deals with contemporary international topics. This course can be included in the business, non-business, or elective category. Consult with a business advisor for approved courses.

**No S/U courses in major or minor:** All courses in the major or minor fields and all foundation coursework in business must be taken on a graded basis; the S/U option is not available.

## Degree Requirements

<b>NON-BUSINESS (54 hrs. minimum)</b>	<b>Sem. Hours</b>
1. General Education Requirements*	
a. English Composition	6
b. Mathematics and Quantitative Reasoning (Calculus is required)	6
c. Natural Sciences	6
d. Social and Behavioral Sciences	6
e. Human Cultural Diversity Global Context	3
f. Fine Arts and Humanities	<u>9</u>
<b>Total</b>	<b>36</b>
2. Exit/Capstone Course Requirements	
a. The Capstone Course	3
b. The Writing Intensive Course	<u>3</u>
<b>Total</b>	<b>6</b>
*See Exit Requirements for more details	
3. Speech/Writing Requirements for Business Majors	
a. SPC 2600 Public Speaking <b>or</b> COM 3110 Communication for Business & the Professions	3
b. ENC 3250 Professional Writing <b>or</b> ENC 3310 Expository Writing or equivalent	<u>3</u>
<b>Total</b>	<b>6</b>
4. Additional elective credits	
Students may or may not need to take additional hours to meet the minimum of 54 non-business credits (see "Electives" heading below for a suggested course)	
<b>Total non-business credit hours 54</b>	

## **BUSINESS (60-66 hrs. minimum)**

1. Foundation Courses in Business	
Required - a minimum grade of C- in each foundation course with an overall 2.0 GPA	
ACG 2021 Principles of Financial Accounting	3

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ACG	2071	Principles of Managerial Accounting	3
ECO	2013	Economic Principles: Macroeconomics	3
ECO	2023	Economic Principles: Microeconomics	3
QMB	2100	Business & Economic Statistics I	3
BUL	3320	Law and Business I	3
FIN	3403	Principles of Finance	3
ISM	3011	Information Systems in Organizations	3
QMB	3200	Business & Economic Statistics II	3
MAN	3025	Principles of Management	3
** MAR	3023	Basic Marketing	3
GEB	4890	Strategic Mgmt/Decision Making	<u>3</u>
<b>Total</b>			<b>36</b>
2. Major Requirements (specific courses for each major are listed in the "Departments and Programs" section below.)			
3. Business Electives:			18-24
CGS	2100*		3
FIN/MKT/MAN majors only			<u>3</u>
<b>Minimum Business Credits</b>			<b>60-66</b>
<b>** Marketing majors must earn "C", not "C-", in MKT 3023</b>			

## ELECTIVES IN BUSINESS OR NON-BUSINESS

Sufficient elective courses to reach a minimum of 120 hours (ranges from 0-6 credit hours if above requirements are met)

### Minimum total hours 120

\*Waiver examination administered by the College only may be substituted for CGS 2100. See Advisor for details.

## PROGRAMS

### • GENERAL BUSINESS (GBA)

The General Business major provides students with substantial preparation in two functional areas of business and prepares them for positions in a business world that is increasingly interdisciplinary and values cross-functional abilities.

**Requirements for the B.A./B.S. Degree:** Within the 120-semester-hours program as listed in the General Requirement section, students must complete two minors from the following business disciplines: accounting, , finance, management, , or marketing. A minimum of 24 hours of upper-level course work must be earned with a GPA of at least 2.0 in each minor. The requirements for each minor are listed below. Minors applied to the General Business major will be referred to as concentrations. Concentrations used as part of the General Business Major will not also be subsequently listed as independent minors on the transcript.

#### Concentration Requirements:

##### Accounting

ACG 3103	Intermediate Financial Accounting I	3
ACG 3341	Cost Accounting and Control I	3
ACG 3401	Accounting Information Systems	3
TAX 4001	Concepts of Federal Income Taxation	<u>3</u>
		12

##### Finance

FIN 4504	Principles of Investments	3
FIN 4303	Financial Institutions and Markets	3
FIN 4414	Advanced Corporation Finance	3
FIN 4443	Financial Policies and Strategies*	<u>3</u>
		12

\*Should be taken as the last finance course in the concentration

##### Management

MAN 3240	Organizational Analysis	3
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MAN 3301 Human Resource Management	3
MAN 4282 Organizational Assessment	3
MAN 4600 International Management	<u>3</u>
	12

**Marketing**

MAR 3823 Marketing Management	3
Any three upper level courses with MAR prefix*	<u>9</u>
	12

\*choose from 3400, 3613, 4156 and 4333

**Requirements for a Minor in Business Administration (Non-Business Majors Only):** Students are required to process an application for the minor in the Division of Innovation Management. Students must complete an introductory computer course (with content similar to CGS 2100 Computers in Business) or obtain a waiver for this requirement from the Division of Innovation Management by demonstrating competence in the use of computers.

1. The course requirements are as follows:

ACG 3074 Managerial Accounting for Non-Business Majors*	3
ECO 1000 Basic Economics**	3
FIN 3403 Principles of Finance	3
MAN 3025 Principles of Management	3
MKT 3023 Basic Marketing	3
MAN 4802 Entrepreneurship & Small Business Management	<u>3</u>
Total	18

2. A grade point average of 2.0 or better must be achieved in the minor course work at USF and in all minor courses completed at other institutions.

3. At least 12 hours of the required 18 credit hours must be taken in residence at USF.

\*ACG 2021 & ACG 2071 can be substituted for ACG 3074.

\*\*ECO 2013 & ECO 2023 can be substituted for ECO 1000.

• **MANAGEMENT AND ORGANIZATION (MAN)**

The undergraduate degree in Management prepares students for entry-level positions in general business and management, as well as human resources/organizational development positions and small business management. It also prepares students for graduate study in Business such as the MBA program. Management is a dynamic field that focuses on planning, organizing, and leading in business, non-profit and governmental organizations. Managing people in organizations involves behavioral concepts such as motivation, personality, teamwork, communication and leadership skills.

**Requirements for the B.A./B.S. Degree:** Within the 120-semester-hour program listed in the General Requirements section, students must complete 18 hours of management beyond MAN 3025. At least 12 hours must be taken in residence at USF. A grade point average of 2.0 or higher must be achieved in all major coursework at USF and an overall 2.0 GPA including transfer work.

Required Management Courses:

MAN 3240 Organizational Behavior Analysis	3
MAN 4063 Management Ethics	3
MAN 4282 Organizational Design and Assessment	3
MAN 3301 Human Resources Management	3
MAN 4600 International Management	3
MAN 4441 Negotiation and Conflict Management	3
MAN 4737 Integrated Management Applications	<u>3</u>
<b>Total</b>	<b>21</b>

• **MARKETING (MKT)**

Marketing is a dynamic field with many dimensions, including product selection and planning, product distribution, pricing and promotion. Marketing poses many challenges and yields generous

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rewards for those who meet these challenges. Marketing operations are carried out domestically and internationally in virtually all business organizations that offer a product or service. Many marketing concepts are applicable to the operations of non-profit organizations such as governmental, educational, and health care institutions, as well as charitable and political campaigns.

**Requirements for the B.A./B.S. Degree:** Within the 120-semester-hour program listed in the General Requirements section, students must complete a minimum of 18 hours in marketing beyond MAR 3023. At least 12 hours must be taken in residence at USF. A grade of "C" or higher (not "C-") is required in all Marketing Classes including Basic Marketing (MAR 3023) plus a 2.0 GPA in all major coursework and an overall 2.0 GPA including transfer work.

Required Marketing Courses:

MAR 3823	Marketing Management	3
MAR 3613	Marketing Research	3
MAR 3400	Professional Selling	3
MAR 4333	Electronic/Promotion Management	3
MAR 4824	Marketing Management Problems	3
	Additional upper-level marketing courses	<u>3-9</u>
<b>Total</b>		<b>18-24</b>

It is strongly recommended that marketing majors take an internship course as part of their plan of study. It is also recommended that courses in information technology, finance, management, and international business be included in the business electives.

# COLLEGE OF APPLIED ARTS AND NEW MEDIA

**(No majors available at this time)**

## **Requirements for the Minor in Communication**

The minor in Communication is available to students pursuing any other major at USF. The minor in Communication requires a minimum of 18 hours of departmental coursework, including:

SPC 2600 Public Speaking

COM 2000 Introduction to Communication

The other 12 hours may be selected from among departmental offerings and must include a minimum of 6 hours at the 3000-level or higher. A grade of "C-" is required for a departmental course to count toward a Communication minor. Courses may not be taken S/U where a grade option exists.

## **Requirements for the Minor in Professional and Technical Writing (15 hours)**

The professional technical writing option combines the study of English and American Literature with an introduction to writing found in the professional workplace. This minor is available to students pursuing any other major at USF.

ENC 2210 Technical Writing

ENC 4260 Advanced Technical Writing

### ***Any two of the following courses***

ENC 3250 Professional Writing

ENC 3310 Expository Writing

ENC 4311 Advanced Composition

ENC 4931 Selected Topics in Professional and  
Technical Writing (can be repeated for different topics)

### ***One additional course***

Any American Literature (AML) or English Literature (ENL) course