

# BALL STATE UNIVERSITY

## ACADEMIC POSTING

2017-2018

VOLUME XLVIII – 6

April 20, 2018

This posting may contain all or part of the following: new, revised, and dropped programs, courses and prefixes. The posting period begins April 20, 2018. If no demurrer is received within ten school days, the changes will be certified for implementation. *The effective date for implementing the undergraduate and graduate materials posted after May 5, 2018 is Fall Semester 2019.*

### PENDING ICHE APPROVAL

71-72 crs

#### TEACHING MAJOR IN COMPUTER SCIENCE, 71-72 credits

PREFIX	NO	SHORT TITLE	CREDITS
CS	120	Comp Sci 1: Prog Fundamentals	4
	121	Computer Science 2	4
	124	Discrete Structures (3)	
		or	
MATH	215	Discrete Systems (4)	3-4
CS	200	Computers and Society	3
	222	Advanced Programming	3
	224	Des and Analy of Algorithms	3
	230	Computer Org and Arch	3
	416	Computer Networks (3)	
		or	
CT	210	Fundamentals of Network Design (3)	
		or	
	310	Internetwork Design Admin (3)	
		or	
CIS	317	Computer Networks for Business (3)	3
CS	419	Operating Systems	3
			_____
			29-30 crs

#### Professional education sequence, 42 credits

PREFIX	NO	SHORT TITLE	CREDITS
CS	150	Intro to Teaching CS	3
	393	Teaching CS in Middle Schools	3
	395	Teaching CS in Secondary Schools	3
EDFO	420	Soc, Hist, Phil Found of Ed	3
EDJH	385	Prin of Tchng in Mid Schl	3
EDMU	205	Intro to Multicul Ed	3
EDPS	251	Development Secondary	3
	390	Educational Psychology	3
EDSE	320	Read Div Sec Cont Class	3
	380	Princ of Tchng in Sec School	3
Student teaching			12

#### COLLEGE OF ARCHITECTURE AND PLANNING

##### Department of Architecture

##### Revised:

##### MAJOR IN ARCHITECTURE (BA/BS), 87 credits

PREFIX	NO	SHORT TITLE	CREDITS
ARCH	100	Introduction to Architecture	2
	201	Architectural Design	4
	202	Architectural Design	4
	214	Arch Build Tech 1	3
	218	Structural Systems 1	3
	229	History of Architecture 1	3
	251	Social and Env Justice in Dsgn	3
	263	Digital Design	3
	273	Environmental Systems 1	3
	301	Architectural Design	5
	302	Architectural Design	5
	314	Arch Build Tech 2	3
	318	Structural Systems 2	3
	329	History of Architecture 2	3
	340	Intro to HP for Architects	3
	373	Environmental Systems 2	3
	401	Architectural Design	5
	402	Architectural Design	6
	410	Critical Practice	3
CAP	101	Environment Design and Plan 1	3
	102	Environment Design and Plan 2	3
	161	Design Communications Media 1	2
	162	Design Communications Media 2	2
LA	100	Intro Landscape Architecture	2
PLAN	100	Intro Urb Planning and Dev	2
		6 credits from electives in ARCH, CAP, LA, PLAN,	

CM, or ID	6
	<hr/>
	87 crs

Elective credits may be waived by completing an approved minor.

*Not open to environmental design majors.*

## Department of Construction Management and Interior Design

### Revised:

#### MAJOR IN INTERIOR DESIGN (BA/BS), 87 credits

PREFIX	NO	SHORT TITLE	CREDITS
AHS	100	Introduction to Art	3
IDES	101	Rapid Visualization	3
	110	Design Fundamentals	3
	111	Graphic Communication 1	3
	112	Design Presentation	3
	114	Sustainable Interiors	3
	115	Interior Materials and Appl	3
	120	Graphic Communication 2	3
	210	Hist and Theoretical Studies 1	3
	221	Graphic Communication 3	3
	222	Interior Design Studio 1	3
	224	Interior Design Studio 2	3
	225	Hist and Theoretical Studies 2	3
	228	Graphic Communication 4	3
	261	Universal Design	3
	300	ID Professional Practice	3
	314	Color and Light in ID	3
	320	Furniture Design	3
	324	Interior Design Studio 3	3
	334	Interior Design Studio 4	3
	362	Int Const Build Systems	3
	369	Internship in Interior Design (1-6)	5
	400	NCIDQ Preparation	1
	420	ID Programming	3
	424	Interior Design Studio 5	3
	484	Interior Design Studio 6	3

6 credits from

ACC	201	Principles of Accounting 1 (3)
ACR	221	Introduction to Metals (3)
	231	Introduction to Glass (3)
AFA	101	Drawing 1 (3)
ARCH	100	Introduction to Architecture (2)
	329	History of Architecture 2 (3)
CM	104	Introduction to Construction (3)
	180	Construction Documents (3)
	222	Technical Presentation (3)
	250	Construction Methods Matls 1 (3)
	299X	Experimental Development Topic (3 or 6)
ECON	116	Survey of Economic Ideas (3)
IDES	299	Special Topics in ID (1-6)

	490	Independent Study (1-3)	
MKG	300	Principles of Marketing (3)	6
			<hr/>
			87 crs

Students are placed in the pre-interior design program for the first two years. All pre-interior design students are required to participate in *Portfolio Review* during the second semester of the second year to be admitted to the 300-level courses and higher. Students will be admitted to the interior design program, upon successful completion of the review. See interior design Web site for more details. A grade of *C* or better is required in all required courses. Students with grade of *C-* or lower need to retake the course. Students are required to complete an exit survey prior to graduation. Students may not progress through the program until they satisfy the requirements.

#### MINOR IN INTERIOR DESIGN, 24 credits

PREFIX	NO	SHORT TITLE	CREDITS
Required courses, 15 credits			
CAP	162	Design Communications Media 2 (2)	
		or	
IDES	101	Rapid Visualization (3)	2-3
IDES	110	Design Fundamentals (3)	
		or	
CAP	102	Environment Design and Plan 2 (3)	3
IDES	111	Graphic Communication 1	3
	115	Interior Materials and Appl	3
	222	Interior Design Studio 1 (3)	
		or	
ARCH	201	Architectural Design (4)	3-4
			<hr/>
			15 crs

Choose 9 additional credits from the following:

IDES	112	Design Presentation (3)	
	114	Sustainable Interiors (3)	
	120	Graphic Communication 2 (3)	
	210	Hist and Theoretical Studies 1 (3)	
	221	Graphic Communication 3 (3)	
	224	Interior Design Studio 2 (3)	
	225	Hist and Theoretical Studies 2 (3)	
	228	Graphic Communication 4 (3)	
	261	Universal Design (3)	
	314	Color and Light in ID (3)	
	320	Furniture Design (3)	
	324	Interior Design Studio 3 (3)	
	362	Int Const Build Systems (3)	9
			<hr/>
			24 crs

Students completing this minor must receive *C* or better grades in all interior design courses. Students receiving a grade lower than *C* are required to retake the course.

## INTERIOR DESIGN (IDES)

### New:

**299 Special Topics in Interior Design (1-6)** This course will be used for offering topics of faculty interest and field study.

A total of 6 credits may be earned.

**490 Independent Study (1-3)** Independent study in Interior Design with guidance by faculty member. Written proposal must be approved by program directory prior to term of study.

A total of 6 credits may be earned.

### Dropped/replaced:

*Dropped courses on left; replacement courses on right  
For dropped/replaced courses that also have revisions, the old courses are notated in parenthesis.*

FCID 101 → IDES 101  
 FCID 110 → IDES 110  
 FCID 111 → IDES 111  
 FCID 112 → IDES 112  
 FCID 115 → IDES 115  
 FCID 120 → IDES 120  
 FCID 210 → IDES 210  
 FCID 222 → IDES 222  
 FCID 221 → IDES 221  
 FCID 224 → IDES 224  
 FCID 225 → IDES 225  
 FCID 228 → IDES 228  
 FCID 261 → IDES 261  
 FCID 300 → IDES 300  
 FCID 314 → IDES 314  
 FCID 320 → IDES 320  
 FCID 324 → IDES 324  
 FCID 334 → IDES 334  
 FCID 362 → IDES 362  
 FCID 369 → IDES 369  
 FCID 400 → IDES 400  
 FCID 420 → IDES 420  
 FCID 424 → IDES 424  
 FCID 484 → IDES 484  
 FCID 604 → IDES 604  
 FCID 606 → IDES 606  
 FCID 610 → IDES 610  
 FCID 612 → IDES 612  
 FCID 614 → IDES 614  
 FCID 613 → IDES 613  
 FCID 616 → IDES 616  
 FCID 619 → IDES 619  
 FCID 620 → IDES 620

**114 (FCID 220) Sustainable Interiors (3)** Focused on the examination and application of the appropriate sustainable/green principles in interior design. Emphasis will be on Leadership in Energy & Environmental Design for Contract Interiors Green Building Rating Systems™ (LEED-

CI), a national certification program by the U.S. Green Building Council.

## Department of Landscape Architecture

### New:

**514 Landscape Architectural Engineering 4 (3)** Advanced methods of landscape architecture engineering and construction/implementation practices. Subjects include advanced applications for construction documentation, Building/Site/Land Information modeling (e.g., BIM); documented sustainable design criteria/guidelines/techniques (e.g., SITES); landscape construction management; and post-construction/-occupancy evaluation. Course topics may include advanced sustainable site construction and landscape engineering applications for lighting, water, material selection, and landscape management.

*Prerequisite:* LA 313 or permission of the instructor.

*Open only to* landscape architecture majors.

## MILLER COLLEGE OF BUSINESS

### Department of Accounting

#### ACCOUNTING (ACC)

#### Revised:

**301 Intermediate Accounting 1 (3)** The theoretical framework for accounting principles and procedures, the application of generally accepted accounting principles, and the preparation of financial statements.

*Prerequisite:* ACC 201 and 202 with grades higher than C-

**302 Intermediate Accounting 2 (3)** A continuation of ACC 301. Includes such topics as accounting for income taxes, pensions and post-retirement benefits, leases and other external reporting concerns.

*Prerequisite:* ACC 301 with grade higher than C-.

**305 Accounting Information Systems (3)** A study of the role of accounting information systems and related subsystems. The relationship of accounting information systems to other systems, including management information systems, is addressed.

*Prerequisite:* ACC 301 with grade higher than C-.

*Parallel:* ISOM 225.

**410 Advanced Topics in Taxation (3)** A study of federal taxes on the business income of corporations, partnerships, exempt entities, and estates and trusts. Includes the use of tax reference materials and tax services.

*Prerequisite:* ACC 401 with a grade higher than C-.

*Parallel:* ACC 302.

**451 Auditing Principles and Practices (3)** Auditing of financial data and related controls from the perspective of internal and external auditors. Topics include internal control procedures, auditing procedures and standards, as well as reporting.

*Prerequisite:* ACC 302 with grade higher than C-.

**501 Financial Accounting (3)** Explores fundamental issues in financial accounting and external reporting from a manager's perspective. Develops skills necessary to interpret financial information.

*Prerequisite:* full admission to a graduate or certification program of the university.

*Not open to* students who have credit in ACC 201 or equivalent.

*Not applicable* toward the credits required for Master of Science in Accounting and Master of Business Administration.

## Department of Economics

### Revised:

#### MAJOR IN MATHEMATICAL ECONOMICS (BA/BS), 52-55 credits

PREFIX	NO	SHORT TITLE	CREDITS
ECON	201	Elementary Microeconomics	3
	202	Elementary Macroeconomics	3
	301	Intermediate Microeconomics	3
	302	Intermediate Macroeconomics	3
	221	Business Statistics (3)	
	or		
MATH	221	Probability and Statistics (3)	
	or		
	321	Mathematical Statistics (4)	3-4
	165	Calculus 1	4
	166	Calculus 2	4
	215	Discrete Systems	4
	217	Linear Algebra	4
	259	Intro to Mathematical Software	3

9 credits from

ECON from 300- and 400-level must include

ECON 421 Mathematical Economics (3)

or

424 Econometrics (3) 9

6-7 credits from

MATH 267, 320, 335, 351, 362, 363, 374, 422, 428, 429, 454, 456, 457, 465, 470, and 471 6-7

3-4 credits from

MATH 267, 320, 321, 335, 351, 362, 363, 374, 422, 428, 429, 454, 456, 457, 465, 470, and 471 (ECON 300-400 level) 3-4

52-55 crs

MATH 161 Applied Calculus 1 (3) and 162 Applied Calculus 2 (3) may substitute for MATH 165 and 166 along with another 2 credits of MATH from the approved electives to complete the 52-credit total requirement. All mathematical economics majors will be required to take the Major Field Test in Economics before graduation.

## ECONOMICS (ECON)

### Revised:

**424 Introduction to Econometrics (3)** Applied statistical methods to economics. Emphasizes constructing, estimating, and testing economic models. Topics include multiple regression analysis, advanced regression techniques, time series analysis, and forecasting. Consider specific problems that arise in applying these topics and business data.

*Prerequisite:* ECON 201 with a grade higher than C-; ECON 202; ECON 221 or MATH 221 with a grade higher than C- or permission of the department chairperson.

**509 Survey of Economics (3)** Micro- and macroeconomics for those without economics credit at the undergraduate level. Satisfies the prerequisites of courses requiring ECON 201 and 202.

*Not open to* students who have credit in ECON 201, 202.

*Not applicable* toward the credits required for Masters of Science in Accounting and Master of Business Administration.

## Department of Finance and Insurance

## FAMILY AND CONSUMER SCIENCES (FCS)

### Dropped:

**135 Financial Literacy (1)**

## Department of Information Systems and Operations Management

### Revised:

#### MAJOR IN COMPUTER INFORMATION SYSTEMS (BA/BS), 69 credits

PREFIX	NO	SHORT TITLE	CREDITS
Miller College of Business core, 45 credits			
ACC	201	Principles of Accounting 1	3
	202	Principles of Accounting 2	3

BL	260	Principles of Business Law	3
ECON	201	Elementary Microeconomics	3
	202	Elementary Macroeconomics	3
	221	Business Statistics	3
FIN	300	Principles of Finance	3
ISOM	125	Micro Apps for Business	3
	210	Business Information Systems	3
	249	Foundations of Business Comm	3
	351	Operations Management	3
MATH	132	Brief Calculus	3
MGT	300	Managing Behavior in Org	3
	491	Bus Policy and Strategy Mgt	3
MKG	300	Principles of Marketing	3
			45 crs

## Information systems core, 21 credits

CIS	226	Business Systems App Dev	3
	317	Computer Networks for Business	3
	410	Information Systems Security	3
	412	Business Proc Analysis & Des	3
	413	Database Management Systems	3
	490	Information Systems Integ Proj	3
ISOM	300	Project Management	3
			21 crs

## Electives (choose one course for 3 credits)

BA	305	Intro to Business Analytics (3)	
	310	Data Visualization (3)	
	436	Data Warehouse and Bus Intel (3)	
CIS	421	Network & Security Management (3)	
	422	Health Care Inform Systems (3)	
	450	E-Commerce Design/Applications (3)	
ISOM	369	Industry Internship (3)	3
			69 crs

To pursue this program, students must have sufficient mathematical preparation to meet the prerequisite for ECON 221. The prerequisite for ECON 221 is a *C* or better grade in MATH 111 or a passing grade (*D-* or better) in MATH 132, 161, 162, 165, or 166 and a *C* or higher grade in ISOM 125. MATH 132 simultaneously substitutes for the University Core Curriculum math requirement.

**Minor in Business Administration for Computer Technology, 21 credits**

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CREDITS</i>
CIS	226	Business Systems App Dev	3
	413	Database Management Systems	3
ECON	116	Survey of Economic Ideas	3
ISOM	125	Micro Apps for Business	3
	210	Business Information Systems	3
	300	Project Management	3
MGT	300	Managing Behavior in Org	3
			21 crs

**MINOR IN BUSINESS ANALYTICS, 15 credits**

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CREDITS</i>
BA	305	Intro to Business Analytics	3
	345	Data Mining for Bus Analytics	3
CIS	413	Database Management Systems	3
6 credits from			
BA	310	Data Visualization	3
	436	Data Warehouse and Bus Intel	3
CIS	422	Health Care Info Sys	3
ECON	330	Sports Econ	3
	348	Health Economics	3
			15 crs

This minor is open only to students in the Miller College of Business or by permission of the department chairperson. CIS 226 is required for CIS 413. ISOM 210 is required for BA 310 and CIS 422. ECON 201 and 221 are required for ECON 330 and 348.

**Dropped:****CERTIFICATE IN BUSINESS TECHNOLOGY, 15 credits****BUSINESS ANALYTICS (BA)****New:****310 Data Visualization for Business Analytics (3)**

Introduces students to data visualization for business analytics and intelligence, and includes both the principles and techniques of creating insightful visualizations. Students will learn the value of visualization, specific techniques in information visualization and scientific visualization, and understand how to best leverage visualization methods.

*Prerequisite:* ISOM 210 or permission of the department chairperson.

**Revised:**

**305 Introduction to Business Analytics (3)** Introduction to data-driven business management analytics. Provides the business rationale for leveraging analytics to improve organizational performance and the challenges businesses face on analytics. Introduces the basis of data science and business analytics for handling massive databases. Covers concepts such as ethical use of data, data mining, data management, the use of key performance indicators, dashboards and scorecards for performance management, text and web mining, and big data analytics.

*Prerequisite:* ECON 221 or equivalent with a grade higher than *C-* or permission of the department chairperson.

**345 Data Mining for Business Analytics (3)** Designed to facilitate the understanding of how to leverage business

intelligence and analytics in their organization. Examines critical areas of analytics such as text analytics, descriptive analytics, predictive analytics, and prescriptive analytics. Students learn to apply logistic regression, association rules, tree structured classification and regression, cluster analysis, discriminant analysis, and neural networks to address critical business issues and enable/drive businesses to transform their organizations.

*Prerequisite:* BA 305 or permission of the department chairperson.

### **436 Data Warehouse and Business Intelligence (3)**

Introduces the topics of how to collect, manage, mine, analyze, and interpret large amounts of structured data, while creating visual representations of this information using industry tools and technologies. Includes dimension modeling, database requirements, data management processes within a data warehouse. Students will create data-driven proposals based on case studies and build dashboards to help with executive decision support.

*Prerequisite:* CIS 413 or permission of the department chairperson.

### **482 Business Analytics Research (Capstone Course) (3)**

Students will apply the skills or techniques they learned in previous courses (e.g. data mining, visualization, data analysis, etc.) to conduct a research study driven by real-world enterprise data or data they collect on their own. The research project aims at evaluating the students on one or more of the following skills: ability to conduct research and learn as team members and independently; teamwork and communication; business analytics projects life cycle; collecting, processing, and analyzing structured and unstructured data; developing and testing predictive analytics models; developing and testing hypothesis-driven research questions; writing scientific/professional reports.

*Prerequisite:* BA 345 and CIS 413 or permission of the department chairperson.

## **Department of Management**

### **Revised:**

#### **MINOR IN FOOD MANAGEMENT, 18 credits**

HOSP	105	Hospitality Foodserv Industry	1
	110	Prin Food Prep and Food Serv	3
	147	Foodservice Sanitation	1
	222	Advanced Culinary Techniques	3
	400	Restaurant Management	4
	475	Catering for Profit	3
NUTR	275	Personal Nutrition	3

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18 crs

This minor is not open to hospitality and food management majors.

## **HOSPITALITY AND FOOD MANAGEMENT (HOSP)**

### **Revised:**

#### **222 (FCFN 222) Advanced Culinary Techniques (3)**

Fundamentals of planning, preparing, and serving financially responsible, appetizing and aesthetically appealing meals in a commercial kitchen environment. Attention is given to foods and learning the fundamentals of using commercial food preparation equipment and the use of computers in food service.

*Prerequisite:* HOSP 110.

*Not open to* students who have credit in HOSP 220.

*Open only to* hospitality and food management majors and food management minors.

## **MANAGEMENT (MGT)**

### **Revised:**

#### **661 Strategic Human Resource Management (3)**

Emphasizes the basic functions of human resource management including planning, job analysis, selection, training, compensation, evaluation, safety, labor relations, and international issues. A combination of lecture, discussion, applied exercises, and case analysis will be employed.

*Prerequisite:* full admission to a graduate program of the university.

*Open only to* Miller College of Business students or by permission of the Miller College of Business director of graduate programs.

## **COLLEGE OF COMMUNICATION, INFORMATION, AND MEDIA**

### **Center for Information and Communication Sciences**

#### **Drop:**

**Certificate in Information and Communication Technologies for Non-Engineers, 14 credits**

## **COLLEGE OF FINE ARTS**

### **School of Music**

#### **MUSIC EDUCATION (MUSE)**

**Dropped:**

340 Playwriting

3

**651 Band Administration (3)**

## Design/Technology electives

Choose one from the following

THEA	223	Costume Design and Tech 1 (3)
	229	Stage Makeup Design and Tech 1 (2)
	320	Scenic Design and Technology 1 (3)
	326	Lighting Design and Tech 1 (3)
	327	Sound Design and Technology 1 (3)

**Department of Theatre and Dance****Revised:**

## Electives, 10-11 credits

ENG	410	Adv Screenwriting (3)
	464	Shakespeare (3)
TCOM	487	Video Production Seminar (3-6)
THEA	150	Introduction Theatre Education (3)
	234	Intro to the Singing Actor (3)
	291	Stage Management (3)
	318	Advanced Topics (3-6)
	324	Musical Theatre History (3)
	329	Costume History (3)
	350	Directing 2 (3)
	352	Topics in Directing (3)
	353	Acting and Directing History (3)
	354	Directing for Young Audiences (3)
	380	Advanced Practicum (1-9)
	391	Advanced Stage Management (3)
	420	Scenic Design and Technology 2 (3)
	423	Costume Design and Tech 2 (3)
	426	Lighting Design and Tech 2 (3)
	434	Immersion Experience (1-12)
	450	Directing 3 (3)
	491	Theatre Management (3)
	496	Directed Study (1-9)

Up to three other THEA or DANC courses not listed above as approved by PDA or chairperson. Exception: THEA 318 may be taken up to four times total, but each must be on a different topic. Students are expected to take THEA 220 to meet the prerequisite for THEA 320.

14

58 crs

The theatre creation concentration is recommended for students wanting a broad-based, liberal-arts education in theatre. Some students may also pursue graduate study at the MA and PhD level. Students must earn and keep a 3.0 or better grade-point average for all courses required on the major after earning 36 credits or they will be placed on academic probation for one semester. If a student has two consecutive semesters on academic probation, they will be dismissed from the theatre creation concentration. Students must also submit a Theatre Creations Writing Portfolio in the fall of their sophomore, junior, and senior years. Failure to submit a portfolio will result in the student being placed on concentration probation. Failure to submit two portfolios in a row will result in removal from the concentration. Students may audition or submit portfolio reviews for other concentrations within the department.

**MAJOR IN THEATRE (BA/BS), 58-67 credits**

PREFIX	NO	SHORT TITLE	CREDITS
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## Core requirements, 32 credits

THEA	102	Branding and Marketing	1
	103	Aesthetics of Theatre 1	3
	104	Aesthetics of Theatre 2	3
	105	Freshman Experience	1
	107	Design Awareness	3
	220	Stagecraft	3
	232	Acting 1	3
	250	Directing 1	3
	280	Theatre and Dance Practicum (0-1)	2
	317	Pre-Modern Theatre History	3
	319	Modern Theatre History	3
	405	Senior Experience	1
	435	Shakespeare Performance	3
			<hr/>
			32 crs

Production: Stage Management concentration

## Required courses, 24 credits

THEA	223	Costume Design and Tech 1	3
	291	Stage Management	3
	320	Scenic Design and Technology 1	2
	326	Lighting Design and Tech 1	3
	327	Sound Design and Technology 1	3
	391	Advanced Stage Management	3
	392	Topics in Stage Management	3
	491	Theatre Management	3

## Electives

6 credits directing

6 credits stage management

Any THEA course, courses from other departments as approved by advisor

6

62 crs

*Theatre creation concentration, 26 credits*

## Required courses, 13 credits

DANC	Any 100-level dance course other than DANC 100	1
THEA	233 Acting 2	3
	322 Theatre of the 21 <sup>st</sup> Century	3
	325 Dramaturgy	3

**DANCE (DANC)**

**Revised:**

**490 Creative Project (2)** Designed as a project in choreography for advanced dance students.

*Prerequisite:* DANC 287 and 387 or permission of the department chairperson.

A total of 6 credits may be earned, but not more than 2 in any one semester or term.

**THEATRE (THEA)**

**New:**

**392 Topics in Stage Management (3)** Focuses on taking a show from rehearsal to public performances: leading a team through the process of rehearsal, technical rehearsal and dress rehearsal to opening night. A major component of the class will focus on booking and calling several scripted pieces, movement pieces and musical scripts. Emphasis will be given to the technical rehearsal and dress rehearsal processes. Developing skills to integrate technical elements into the production through technical and dress rehearsals, using time effectively and dynamic problem solving.

*Prerequisite:* THEA 291 and permission of the instructor of department chairperson.

**Revised:**

**274 Musical Theatre Ensemble (1)** Choral performing ensemble rehearsing twice a week. Study and performance of large ensemble works from musical theatre productions of all genres/eras.

*Prerequisite:* THEA 271 and 273; permission of the department chairperson.

*Open only to* musical theatre majors and musical vocal performance majors.

**352 Topics in Directing (3)** Revolving special topics course with a semester-long focus in the theoretical and/or practical understanding of a given topic in directing. Possible topics include focused directing in a particular style of theatre; advanced actor training for the director; comparative studies of different directing approaches.

A total of 6 credits may be earned, but no more than 3 in any one semester or term.

**COLLEGE OF HEALTH**

**School of Nursing**

**Revised:**

**MASTER OF SCIENCE (MS) IN NURSING, 36 credits**

**Admission requirements**

Applicants must meet the admission requirements of the Graduate School. Applicants must also

- be a graduate of a National League for Nursing Accrediting Commission (NLNAC) now ACEN Accreditation Commission for Education in Nursing or Association of Colleges of Nursing (CCNE) accredited nursing program. Registered nurses holding baccalaureate degrees in another field who demonstrate successful completion of an upper-division major in nursing may qualify.
- have earned overall grade-point average (GPA) of 3.0 on a 4.0 scale.
- have earned a grade of C or better in at least 2-quarter, or semester, credits in an undergraduate research course.
- have had a physical assessment course (required for clinical majors).
- hold an unencumbered license as a registered nurse in state of practice.
- show evidence of training in standard precautions.
- have health clearance.
- clear criminal background checks.
- have minimum of one year clinical experience before enrolling in clinical courses for new graduates.
- have recent clinical experiences (three of past five years) before enrolling in clinical courses for experienced nurses.

This program is delivered on-line.

**Retention Standards**

An overall scholastic ratio of 3.0 (*B* average) must be attained before admission to candidacy and the final awarding of any master's degree. No course with grades below *B* (3.0) may be counted toward any degree program.

**Registered Nurse to Master of Science Nursing Mobility**

This program is designed for nurses holding an associate degree in nursing and a baccalaureate degree in another field. Contact the School of Nursing for more information.

**All students take the following research and nursing core courses.**

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CREDITS</i>
Research core			
EDPS	641	Intro Statistical Methods (3)	
		or	
NUR	607	Data Analys in Nurs Res (3)	3
	604	Research	3
			6 crs
Nursing core			
NUR	603	Nursing Theory	3



605	Nursing Information Technology	2
610	Nurs Concepts Health Promotion	3
611	Concs Analy 2: Dec Mknng	3
		<hr/>
		8-11 crs

NUR 611 is only required for the administrator and educator concentrations.

Complete one of the following concentrations:

*Nurse Administrator concentration, 36 credits*

Research core	6	
Nursing core	11	
NUR 640	Nurs Admin and Complex Orgs	3
642	Admin Mgt for Nurses	3
643	Financial Management Nurses	3
672	Practicum of Role Expectations	4
Electives	6	
		<hr/>
		36 crs

*Nurse Educator concentration, 36 credits*

Research core	6	
Nursing core	11	
NUR 608	Pathophys and Pharmacology	3
609	Assessment Clinical Practice	3
620	Curricular Designs in Nursing	3
622	Teaching in Nursing	3
626	Program Evaluation	3
672	Practicum of Role Expectations	4
		<hr/>
		36 crs

### Dropped:

**MASTER OF SCIENCE (MS) IN NURSING, *Clinical Nurse Specialist Adult Health concentration, 43 credits***

**MASTER OF SCIENCE (MS) IN NURSING, *Nurse Practitioner (Adult/Gerontology/Family) concentration, 40-47 credits***

**Post-Master's Certificate in Adult/Gerontology Nurse Practitioner, 14-16 credits**

**Post-Baccalaureate Certificate in Nursing Education, 14 credits**

**Certificate in Evidence-Based Clinical Practice, 14 credits**

## Department of Social Work

### SOCIAL WORK (SOCW)

### Revised:

**490 Independent Study in Social Work (1-12)** Topic to be chosen and investigated in consultation with an instructor with special competence in the subject involved.

*Prerequisite:* permission of the department chairperson.

A total of 12 credits may be earned, but no more than 6 in any one semester or term.

*Open only to Social Work majors.*

## COLLEGE OF SCIENCES AND HUMANITIES

### Department of Biology

### Revised:

**MAJOR IN MEDICAL TECHNOLOGY (BA/BS), 58 credits**

Recommended electives are BIO 214; PHYC 110; and MGT 300.

PREFIX	NO	SHORT TITLE	CREDITS
ANAT	201	Fundamentals of Human Anatomy	3
BIO	111	Principles of Biology 1	4
	112	Principles of Biology 2	4
	215	Cell Biology	3
	313	Microbiology	4
	315	Methods in Cell Biology	2
	341	Pathogenic Bacteriology	3
	444	Immunology	4
CHEM	111	General Chemistry 1	4
	112	General Chemistry 2	4
	225	Chemical Analysis	3
	231	Organic Chemistry 1	3
	325	Instrument Meths of Analy	3
	360	Essentials of Biochemistry	3
MATH	108	Intermediate Algebra	3
PHYS	215	Human Physiology	5
ZOOL	347	Animal Parasitology	3
			<hr/>
			58 crs

### Department of Chemistry

### Revised:

**ACS MAJOR IN CHEMISTRY (BA/BS), 61-63 credit concentration**

This program prepares students for graduate study or careers in chemistry. Upon completion of the program, students are

certified to the American Chemical Society (ACS) as having fulfilled the course of study described in "Objectives and Guidelines for Undergraduate Programs in Chemistry," issued by the ACS Committee on Professional Training.

PREFIX	NO	SHORT TITLE	CREDITS
CHEM	111	General Chemistry 1	4
	112	General Chemistry 2	4
	225	Chemical Analysis	3
	231	Organic Chemistry 1	3
	232	Organic Chemistry 2	3
	241	Organic Laboratory 1	1
	242	Organic Laboratory 2	1
	400	Chemical Communications	1
	410	Review of Chem Fundamentals	1
	420	Chemical Instrumentation 1	3
	430	Int Organic Lab Techniques	2
	444	Physical Chemistry 1	4
	445	Physical Chemistry 2	4
	450	Inorganic Chemistry	3
	454	Inorg Organometal Syn Lab	2
	463	Principles of Biochemistry 1	3
	465	Biochem Lab Techniques	2

1 credit from 300- or 400-level approved CHEM course

1  


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 45 crs

Other requirements

MATH	165	Calculus 1	4
	166	Calculus 2	4

PHYC	110	General Physics 1 (4)	
	112	General Physics 2 (4)	
		or	
	120	General Physics 1 (5)	
	122	General Physics 2 (5)	8-10

61-63 crs

Additional credits in CHEM 470, Independent Study and Research, are recommended. Students who take CHEM 230, 231 and 241 must have completed CHEM 112 with a grade of C or better; students who take CHEM 232 and 242 must have completed CHEM 231 with a grade of C- or better; students who take CHEM 360 and 361 must have completed CHEM 230 or 232 with a grade of C- or better; students who take CHEM 430 must have completed both CHEM 232 and 242 with a grade of C- or better.

#### MAJOR IN CHEMISTRY (BA/BS), 51-53 credit concentration

PREFIX	NO	SHORT TITLE	CREDITS
CHEM	111	General Chemistry 1	4
	112	General Chemistry 2	4
	225	Chemical Analysis	3

	231	Organic Chemistry 1	3
	232	Organic Chemistry 2	3
	241	Organic Laboratory 1	1
	242	Organic Laboratory 2	1
	400	Chemical Communications	1
	410	Review of Chem Fundamentals	1
	444	Physical Chemistry 1	4
	445	Physical Chemistry 2	4

5 credits from

CHEM	420	Chemical Instrumentation 1 (3)	
	430	Int Organic Lab Techniques (2)	
	450	Inorganic Chemistry (3)	
	454	Inorg Organometal Syn Lab (2)	
	463	Principles of Biochemistry 1 (3)	
	465	Biochem Lab Techniques (2)	5

1 credit from approved 300- or 400-level

CHEM course 1

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35 crs

Other requirements

MATH	165	Calculus 1	4
	166	Calculus 2	4

PHYC	110	General Physics 1 (4)	
	112	General Physics 2 (4)	
		or	
	120	General Physics 1 (5)	
	122	General Physics 2 (5)	8-10

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51-53 crs

Additional credits in CHEM 470, Independent Study and Research, are recommended. Students who take CHEM 230, 231 and 241 must have completed CHEM 112 with a grade of C or better; students who take CHEM 232 and 242 must have completed CHEM 231 with a grade of C- or better; students who take CHEM 360 and 361 must have completed CHEM 230 or 232 with a grade of C- or better; students who take CHEM 430 must have completed both CHEM 232 and 242 with a grade of C- or better.

#### MAJOR IN CHEMISTRY, BIOCHEMISTRY (BA/BS), 68-70 credit concentration

PREFIX	NO	SHORT TITLE	CREDITS
CHEM	111	General Chemistry 1	4
	112	General Chemistry 2	4
	225	Chemical Analysis	3
	231	Organic Chemistry 1	3
	232	Organic Chemistry 2	3
	241	Organic Laboratory 1	1
	242	Organic Laboratory 2	1
	400	Chemical Communications	1
	410	Review of Chem Fundamentals	1
	444	Physical Chemistry 1	4
	445	Physical Chemistry 2	4

463	Principles of Biochemistry 1	3	
464	Principles of Biochemistry 2	3	
465	Biochem Lab Techniques	2	
		<hr/>	
		37 crs	
Other requirements			
BIO	111 Principles of Biology 1	4	
	112 Principles of Biology 2	4	
	215 Cell Biology	3	
	457 Molecular Biology	4	
MATH	165 Calculus 1	4	
	166 Calculus 2	4	
PHYC	110 General Physics 1 (4)		
	112 General Physics 2 (4)		
	or		
	120 General Physics 1 (5)		
	122 General Physics 2 (5)	8-10	
		<hr/>	
		68-70 crs	

Additional credits from BIO 112 and 400-level chemistry courses such as CHEM 470, Independent Study and Research, are recommended. Students who take CHEM 230, 231 and 241 must have completed CHEM 112 with a grade of C or better; students who take CHEM 232 and 242 must have completed CHEM 231 with a grade of C- or better; students who take CHEM 360 and 361 must have completed CHEM 230 or 232 with a grade of C- or better; students who take CHEM 430 must have completed both CHEM 232 and 242 with a grade of C- or better.

## Department of Computer Science

### Revised:

#### MAJOR IN COMPUTER SCIENCE (BA/BS), 66-72 credits

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CREDITS</i>
CS	120	Comp Sci 1: Prog Fundamentals	4
	121	Computer Science 2	4
	222	Advanced Programming	3
	224	Des and Analy of Algorithms	3
	230	Computer Org and Arch	3
	239	Social and Professional Issues	1
	380	Theory of Computation 1	3
	416	Computer Networks	3
	418	Database Design	3
	419	Operating Systems	3
	431	Programming Languages	3
	495	Software Engineering 1	3
	498	Software Engineering 2	3

12-16 credits from			
CS	124	Discrete Structures (3)	
		or	
MATH	215	Discrete Systems (4)	3-4
MATH	161	Applied Calculus 1 (3)	
		or	
	165	Calculus 1 (4)	3-4
MATH	162	Applied Calculus 2 (3)	
		or	
	166	Calculus 2 (4)	3-4
MATH	181	Elementary Probability Stats (3)	
		or	
	221	Probability and Statistics (3)	
		or	
	321	Mathematical Statistics (4)	
		or	
ECON	221	Business Statistics (3)	3-4
			<hr/>
			12-16 crs

3-5 credits from			
BIO	111	Principles of Biology 1 (4)	
		or	
CHEM	111	General Chemistry 1 (4)	
		or	
GEOL	201	Earth, Life, and Time (3)	
		or	
PHYC	110	General Physics 1 (4)	
		or	
	120	General Physics 1 (5)	3-5

Electives, 12 credits from			
CS	315	Game Programming (3)	
	369	Professional Experience 1 (1-3)	
	410	Web Programming (3)	
	411	Mobile Application Development (3)	
	420	Multitier Web Architectures (3)	
	421	Data Analytics (3)	
	439	Current Topics Seminar (3-6)	
	445	Human-Computer Interaction (3)	
	446	System Administration (3)	
	447	Network Security (3)	
	455	Data Mining (3)	
	456	Image Processing (3)	
	490	Software Production Studio (3-6)	
	499	Independent Study (1-6)	
MATH	415	Coding and Communication (3)	12
			<hr/>
			66-72 crs

#### MINOR IN COMPUTER SCIENCE, 17 credits

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CREDITS</i>
CS	120	Comp Sci 1: Prog Fundamentals	4
	121	Computer Science 2	4

9 credits from the following

CS	124	Discrete Structures (3)
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222	Advanced Programming (3)
224	Des and Analy of Algorithms (3)
230	Computer Org and Arch (3)
315	Game Programming (3)
380	Theory of Computation 1 (3)
410	Web Programming (3)
411	Mobile Application Development (3)
416	Computer Networks (3)
418	Database Design (3)
419	Operating Systems (3)
420	Multitier Web Architectures (3)
421	Data Analytics (3)
431	Programming Languages (3)
439	Current Topics Seminar (3)
445	Human Computer Interaction (3)
446	System Administration (3)
447	Network Security (3)
455	Data Mining (3)
456	Image Processing (3)
490	Software Production Studio (3-6)

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17 crs

No more than 8 transfer credits are accepted in the minor, and the minor is not open to majors in computer science or minors in computer security.

#### MINOR IN COMPUTER SECURITY, 18-19 credits

PREFIX	NO	SHORT TITLE	CREDITS
CS	110	Intro Comp Sci and Web Prog (3)	
	or		
	120	Comp Sci 1: Prog Fundamentals (4)	3-4
CS	200	Computers and Society	3
	203	Intro to Computer Security	3
	249	Forensics	3
CS	416	Computer Networks (3)	
	or		
CT	210	Fundamentals of Network Design (3)	
	or		
CIS	317	Computer Networks for Business (3)	3
CS	446	System Administration	3

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18-19 crs

Minor in Computer Security is not open to students with a Major in Computer Science or a Minor in Digital Forensics.

#### Dropped:

#### (GRADUATE) MINOR IN COMPUTER SCIENCE, 12 credits

#### CERTIFICATE IN DATA ANALYTICS, 32 credits

#### CERTIFICATE IN TRANSITION TO GRADUATE STUDIES IN COMPUTER SCIENCE, 24-32 credits

#### CERTIFICATE IN WEB SOFTWARE DEVELOPMENT, 26 credits

#### COMPUTER SCIENCE (CS)

#### New:

**150 Introduction to Teaching Computer Science in Secondary Schools (3)** An introduction to the process of becoming a Computer Science teacher in secondary schools. Through coursework and targeted clinical experiences, teacher candidates will begin to form their professional identities as future educators, develop a beginning knowledge base for teaching, and engage with the integration of technology throughout the learning process. They will also observe, develop, and demonstrate initial core teaching practices.

*Prerequisite:* CS 120 with a C- or better.

#### 393 Teaching Computer Science in Middle Schools (3)

Introduction to national and state computer science standards, curricular materials, instructional materials and methods, and assessment related to topics taught in middle school computer science.

*Prerequisite:* CS 150 with a C or better and CS 222, 224, and 230, each with a C- or better; minimum grade-point average of 2.5 in all computer science courses that are to be applied to the major; admittance to teacher education, and permission to enroll in 300/400-level education courses.

*Parallel:* EDJH 385.

#### 395 Teaching Computer Science in Secondary Schools (3)

Introduction to national and state computer science standards, curricular materials, instructional materials and methods, and assessment related to topics taught in secondary school computer science.

*Prerequisite:* CS 393 with a C or better; minimum GPA of 2.5 in all CS courses to be applied to the major; admittance to teacher education program and admittance to enroll in 300/400-level education courses.

*Parallel:* EDSE 380.

**490 Software Production Studio (3-6)** Work with a multidisciplinary team to create an original software product. Students will use an iterative, incremental, user-centered approach to design, develop, test, and deploy their work. This course is open to all majors but is offered by permission only to ensure each team has a practical balance of skills and interests; contact the department for the next planned offering and application instructions.

*Prerequisite:* permission of the instructor.

A total of 6 credits may be earned.

**531 Programming Languages (3)** Study of principles of programming languages. Emphasizes language paradigms and important features, structures, characteristics, and formal syntax of modern high-level programming languages.

Examples of languages in each paradigm will be studied. Before taking this course, a student is expected to have taken undergraduate courses on computer organization and architecture as well as multiple semesters of programming courses including object-oriented programming.

*Not open to students who have credit in CS 335 or CS 431.*

**628 Wireless and Mobile Networking (3)** Topics include hardware and software architectures of wireless and mobile networks, wireless communication principles, network protocols, various wireless networks such as WiFi, Bluetooth, Cellular, and sensor network. Students are expected to have taken an undergraduate level networking course.

## Revised:

**120 Computer Science 1: Programming Fundamentals (4)** Introduction to programming through media computing. Learn basic programming techniques while manipulating image and audio data at the pixel and sound sample level. Topics include control structures, built-in data structures, simple sorting and searching, and procedural abstraction. Required open-lab and close-lab assignments bring theory to practice.

*Prerequisite:* MATH 108 or math placement score sufficient to place into MATH 111, or permission of the department chairperson.

**222 Advanced Programming (3)** Project-intensive study of advanced topics and best practices in software development, including advanced language features, modular decomposition, and development tools.

*Prerequisite:* CS 121 with a C- or better and either CS 124 or MATH 215 with a C- or better.

*Prerequisite or parallel:* ENG 104 or 114 or equivalent (e.g., testing or placement).

*Open only to students in majors, minors, certificate programs, and graduate students of the Department of Computer Science.*

**224 Design and Analysis of Algorithms (3)** Introduction to algorithm analysis, including probabilistic, geometric, combinatorial, and graph algorithms.

*Prerequisite:* CS 121 with a C- or better and either CS 124 or MATH 215 with a C- or better.

*Open only to students in majors, minors, certificate programs, and graduate students of the Department of Computer Science.*

**446 System Administration (3)** Covers the setup and administration of a production-quality. Unix/Linux server, suitable for web/mail hosting, shared shell hosting. Topics include general Unix proficiency, the Internet infrastructure, and system administration essentials. Lecture/lab course targeted towards students from various majors, either with some prior Unix/Linux experience or an eager ability to learn new things quickly. No prior Unix/Linux experience is assumed. Provides a foundational understanding of Unix/Linux and instruction on configuring Unix/Linux to be

used as servers for file sharing, user management, web and email hosting.

*Prerequisite:* CS 300 or CS 416 or CT 210 or CIS 317 with a C- or better.

**447 Network Security (3)** Topics include encryption, decryption, protocols, viruses, network security, authentication, legal and ethical issues, and security in operating systems, databases, e-commerce, Internet, wireless. Algorithms, protocols and applications such as RSA, DES, SSL, Firewalls, Digital Signatures, VPNs and emerging topics will be explored.

*Prerequisite:* CS 416 or CT 210 or CIS 317 with a C- or better.

**521 Foundations of Data Analytics (3)** Introduction to data acquisition, transformation, manipulation, and visualization on large-scale structured and unstructured data. Discussion of basic data analytics methods and algorithms. Application of data analytics in business, web, social networks, and science domains. Students are expected to have completed introductory programming courses before enrolling.

*Not open to students who have credit in CS 321 or CS 421.*

**527 Computer Networks (3)** Covers various networks such as Internet, WiFi and Ethernet. The focus is on TCP/IP network layers and protocols such as physical layer, data link protocol, media access control, routing, transport and application, and network security.

*Not open to students who have credit in CS 327 or CS 416.*

**539 Current Topics Seminar (3-6)** In-depth study of a topic taught in a seminar format. Topics will be posted in the department before registration.

A total of 6 credits may be earned, but no more than 3 in any one semester or term.

**546 Database Design (3)** An introduction to database requirements analysis, modeling, creation, and usage. Topics include ER model, relational model, relational algebra, SQL, dependencies and normal forms, indexes, views, sequences, web-based client-server applications development, ETL, procedural language, database security, and NoSQL.

*Not open to students who have credit in CS 346 or 418 or 546.*

## Dropped/replaced

*For dropped/replaced courses that also have revisions, the old courses are notated in parenthesis.*

**410 (310) Web Programming (3)** Advanced HTML, including XHTML, Cascading Style Sheets, Java Script and Dynamic HTML. XML including DTDs and XSL. Server side programming, security issues, and encryption-based security mechanisms.

*Prerequisite:* CS 121 with a C- or better grade.

**411 (320) Mobile Application Development (3)** Mobile application development using current technologies. Topics include use of mobile device API, responsive design, location

aware applications, hardware sensor applications, resource management, and multimedia applications.

*Prerequisite:* CS 121 with a C- or better.

**416 (327) Computer Networks (3)** This course covers various networks such as Internet, WiFi and Ethernet. The focus is on TCP/IP network layers and protocols such as physical layer, data link protocol, media access control, routing, transport and application, and network security.

*Prerequisite:* CS 224 with a C- or better grade.

*Not open to* students who have credit in CS 327.

**418 (346) Database Design (3)** An introduction to database requirements analysis, modeling, creation, and usage. Topics include ER model, relational model, relational algebra, SQL, dependencies and normal forms, indexes, views, sequences, web-based client-server applications development, ETL, procedural language, database security, and NoSQL.

*Prerequisite:* CS 222 with a C- or better grade.

**419 (376) Operating Systems (3)** Investigation on the functions and structure of computer operating systems, processors, and memory. Topics include operating systems principles, process control, concurrency, memory management, scheduling, and security.

*Prerequisite:* CS 222 and 230, both with a C- or better grade.

**420 (397) Multitier Web Architectures (3)** Topics include n-tier architectures, data access and application logic layers, Web services, scalability, advanced XML, service-oriented architectures, object access protocols, and Web site administration and security. Projects will be used to reinforce concepts.

*Prerequisite:* CS 222 with a C- or better grade, and either CS 410 or 411 with a C- or better grade.

**421 (321) Data Analytics (3)** Introduction to data acquisition, transformation, manipulation, and visualization on large-scale structured and unstructured data. Discussion of basic data analytics methods and algorithms. Application of data analytics in business, web, social networks, and science domains.

*Prerequisite:* CS 121 with a C- or better.

**431 (335) Programming Languages (3)** Study of principles of programming languages. Emphasizes language paradigms and important features, structures, characteristics, and formal syntax of modern high-level programming languages. Examples of languages in each paradigm will be studied.

*Prerequisite:* CS 222 and 230, both with a C- or better grade.

*Not open to* students who have credit in CS 335.

**439 (339) Current Topics Seminar (3-6)** In-depth study of a topic taught in a seminary format. Topics will be posted in the department before registration.

*Prerequisite:* CS 222 with C- or better grade and permission of the instructor.

A total of 6 credits may be earned, but no more than 3 in any one semester or term.

*Open only to* juniors and seniors.

**445 (345) Human-Computer Interaction (3)** Investigation into the principles and practice of user interface design, evaluation, and implementation. Topics include user-centered design, graphical user interface programming, evaluation methods, and software architectures.

*Prerequisite:* CS 222 with a C- or better grade.

**519 (576) Operating Systems (3)** Investigate the functions and structure of computer operating systems, processors, and memory. Topics include process control, concurrency, scheduling, security, and file systems. Introduces topics in systems programming, including I/O programming, signals, and IPC. Before enrolling, students should have completed CS 230 or the equivalent of an undergraduate computer architecture course and CS 224 or the equivalent of two semesters of programming courses and an undergraduate algorithms course.

*Not open to* students who have credit in CS 376 or CS 419.

**520 (597) Multitier Web Architectures (3)** Topics include n-tier architectures, data access, and application logic layers, Web services, scalability, advanced XML, service-oriented architectures, object access protocols, and Web site administration and security. Projects will be used to reinforce concepts. Before enrolling, a student is expected to have taken CS 224 or the equivalent of two semesters of programming and an undergraduate algorithms course.

*Not open to* students who have credit in CS 397 or CS 420.

## Dropped:

**300 Local and Wide Area Networks (3)**

**430 Systems Programming (3)**

**438 Computer Graphics (3)**

**457 Applied Cryptography (3)**

**515 Game Programming (3)**

**530 Systems Programming (3)**

**538 Computer Graphics (3)**

**557 Applied Cryptography (3)**

**638 Advanced Topics in Computer Graphics (3)**

**642 Simulation Techniques (3)**

## Department of English

**Revised:****TEACHING MAJOR IN ENGLISH/LANGUAGE ARTS  
(BA/BS), 87 credits**

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CREDITS</i>
Core requirements, 36 credits			
ENG	205	World Literature	3
	213	Intro to Digital Literacies	3
	220	Language and Society	3
	230	Reading and Writing About Lit	3
	260	British Lit 1: Beg to 1780 (3)	
	or		
	464	Shakespeare (3)	3
	321	English Linguistics	3
	412	Read in Sec Eng Class	3
	414	Young Adult Literature	3
	444	Senior Seminar	3
One class in American Literature			3
Choose from:			
Group A: Before 1900: ENG 240, 345, 346			
or			
Group B: 1900-present: ENG 250, 347, 351			
COMM	220	Argumentation and Debate	3
	240	Introduction to Human Comm (3)	
	or		
	290	Intercultural Communication (3)	3
			<hr/>
			36 crs

Complete one of the following concentrations

*English concentration, 12 credits*

ENG 285 Intro to Creative Writing 3

One class in American Literature

Choose from Group A if you took Group B in the core or choose from Group B if you took Group A in the core. 3

One class in British Literature

Choose from: ENG 280, 362, 363, 364, 365, 366, 367, 464 3

3 credits from

Diverse literature electives 400 and above

Choose from ENG 490, 491, 492, 493, 494, 498 3

*Communication studies concentration, 12 credits*

COMM 240 Introduction to Human Comm (3)

or

290 Intercultural Communication (3) 3

Choose COMM 240 if you took COMM 290 in the core or choose COMM 290 if you took COMM 240 in the core.

COMM	375	Presentational Communication	3
	475	Coaching Directing Forensics	3
	320	Persuasion (3)	
	or		
	330	Small Group Decision Making (3)	
	or		
	370	Nonverbal Communication (3)	3
			<hr/>
			48 crs

**SENIOR HIGH, JUNIOR HIGH/MIDDLE SCHOOL  
EDUCATION PROGRAM**

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CREDITS</i>
<i>Professional education sequence, 39 credits</i>			
EDFO	420	Soc, Hist, Phil Found of Ed	3
EDJH	385	Theory into Prac Mid Lev Schls	3
EDMU	205	Intro to Multicul Ed	3
EDPS	251	Development Secondary	3
	390	Educational Psychology	3
EDSE	380	Theory into Prac Second Schls	3
ENG	150	Intro to Teach Eng in Sec Sch	3
	350	Teach Writing in Sec Schools	3
	395	Teach Lit and Lang Sec Schools	3
Student teaching			12
			<hr/>
			39 crs
			<hr/>
			87 crs

**MINOR IN LINGUISTICS AND GLOBAL  
COMMUNICATION, 15 credits**

This program introduces students to the scientific study of human language, its structure, its diversity, and its communicative properties. The program focuses on understanding how languages change, how they are used by communities, and how they are acquired.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CREDITS</i>
ENG	220	Language and Society	3
	320	Intro to Linguistics Science	3

*Concentration 1: Linguistics*

ENG 321 English Linguistics 3

6 credits from

CH	337	Chinese Linguistics (3)	
ENG	322	Lang and Cross-Cultural Comm (3)	
	323	Discourse Struc and Strategies (3)	
	328	Language and Gender (3)	
	332	Phonetics and Phonology (3)	
	400	Special Topics in English (3)	
FR	337	Phonetics (3)	
GER	337	Phonetics (3)	
JAPA	337	Japanese Linguistics (3)	
SP	337	SP Phonetics and SLA (3)	

	340	Survey in Spanish Linguistics (3)	
SPAA	260	Speech Acoustics (3)	
	270	Language Development (3)	6
			_____
			15 crs

*Concentration 2: Global Communication*

ENG	322	Lang and Cross-Cultural Comm	3
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6 credits from

ANTH	111	Anth, Cult, and Globalization (3)	
COMM	290	Intercultural Communication (3)	
ENG	323	Discourse Struc and Strategies (3)	
	328	Language and Gender (3)	
POLS	293	International Relations (3)	
SOC	328	Global and the Social World (3)	6
			_____
			15 crs

Four semesters or the equivalent in one or more modern or classical languages other than a student's native language are recommended for Concentration 1: Linguistics. Two semesters or the equivalent in one or more modern or classical languages other than a student's native language are recommended for Concentration 2: Global Communication.

**MINOR IN TEACHING ENGLISH TO SPEAKERS OF OTHER LANGUAGES (TESOL), 15 credits**

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CREDITS</i>
ENG	334	Eng Linguistics for Educators	3
	436	Theory and Research in TESOL	3
	437	Methods and Materials in TESOL	3

Directed electives, 6 credits from the following courses

ENG	220	Language and Society (3)	
	321	English Linguistics (3)	
	322	Lang and Cross-Cultural Comm (3)	
	332	Phonetics and Phonology (3)	
	438	TESOL Curric Dev and Assess (3)	
	457	Practicum in TESOL (3)	6
			_____
			15 crs

This minor does not lead to a license. Four semesters or the equivalent in one or more modern or classical languages other than one's native language are recommended. This minor is not open to students pursuing a K-12 license.

## Department of Geography

### GEOGRAPHY (GEOG)

#### Revised:

**618 Quantitative Methods in Environmental Geography (3)** A study of quantitative methods used in geographic research and environmental studies that focuses on the solution of spatial problems. Topics covered in this course include, but are not limited to, descriptive statistics, data visualization, inferential statistics, point and area pattern analysis, correlation/regression analysis, and geostatistics.

*Prerequisite:* MATH 221 or equivalent, or permission of the instructor.

**625 GIS for Environmental Science (3)** Examination of techniques in Geographic Information Systems (GIS), with emphasis on data and analyses relevant to the environmental sciences. Course delivery includes both guided instruction and applied GIS projects focused on data collection, preparation, analysis, and reporting.

*Prerequisite:* permission of the instruction.

## Department of History

### Revised:

#### PROGRAMS

The master of arts (MA) in history may serve a terminal degree or as prelude to an additional graduate degree. In addition, the degree may be used to professionalize the standard secondary school teaching license.

#### MASTER OF ARTS IN HISTORY, 33 credits

#### Admission requirements

Students must apply to and meet the admission requirements of the Graduate School. All applicants must submit a resume or curriculum vitae, original copies of all official undergraduate transcripts, a writing sample (typically their best undergraduate history paper), and a 300-500 word statement concerning goals and interests. Applicants normally should have earned at least a 3.0 grade-point average (GPA) on a scale of 4.0 in a minimum of 18 semester hours in undergraduate history courses. To qualify for a graduate assistantship in the department, applicants must take the Graduate Record Examination (GRE) general test and ordinarily have an undergraduate GPA of at least 3.0 on a scale of 4.0.

#### Degree requirements

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CREDITS</i>
Required Core			
HIST	612	Seminar Modern Historiography	3
	613	Seminar in Historical Research	3

#### Directed electives



A minimum of five courses in American, European, and/or World History distributed over a minimum of two areas. Students must select from the following courses:

#### American History

HIST 621 Studies in US History to 1877 (3)  
 HIST 622 Studies in US History 1877- (3)

#### European History

HIST 631 Studies Early European History (3)  
 HIST 632 Studies Modern Europe History (3)

#### World History

HIST 641 Studies in World History (3)

American, European, and/or World History (depending upon course topic and/or student project)

HIST 623 Special Topics US Europe Hist (3-6)  
 HIST 633 Special Tpcs Comparative Hist (3-6)  
 HIST 661 Seminar in Digital History (3)  
 HIST 670 Intro to Teaching History (3)  
 HIST 671 Seminar in History Education (3) 15

Two 500- or 600-level courses in history or, with approval, in related fields 6  


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 27 crs

#### *Thesis concentration, 6 credits*

Any student may choose to write a thesis. The history department strongly recommends that students who intend to continue their graduate education at the doctoral level write a thesis.

THES 698 Thesis (1-6) 6

or

#### *General concentration, 6 credits*

Students who choose not to write a thesis must complete 6 additional credits of 600-level history course work in lieu of a thesis.

600-level course work 6

or

#### *Digital concentration, 6 credits*

Students who choose the Digital History concentration must take HIST 546 (or a suitable alternative digital methods course if they took HIST 446 as undergraduates, as arranged through consultation with the Director of the MA program) and HIST 661 as a directed elective. They must also take CRPR 698 for 6 credits, or CRPR 698 for 3 credits plus 3 additional credits of 600-level work.

CRPR 698 Creative Project (6)

or

CRPR 698 Creative Project (3)  
 and 3 additional credits of 600-level work (3) 6

or

#### *History Teaching concentration, 6 credits*

Students who choose the History Teaching concentration must take HIST 670 and HIST 671 as directed electives. They must also take THES 698 or CRPR 698 for 6 credits, or CRPR 698 for 3 credits plus 3 additional credits of 600-level work.

THES 698 Thesis (6)

or

CRPR 698 Creative Project (6)

or

CRPR 698 Creative Project (3)

And 3 additional credits of 600-level work (3) 6  


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 33 crs

#### **MA Examination**

All students choose primary and complementary fields of study, defined by geographical region, chronology, and/or theme. Students must take at least three courses (9 credits) in the primary field of study, at least two of which (6 credits) must be at the 600 level. Students will complete at least two courses (6 credits) in the complementary field of study from a different geographic area. At least one of those courses (3 credits) must be at the 600 level.

The culminating experience for all students is the MA Examination, which includes two components:

1. A written examination, consisting of a portfolio of work that includes major papers produced in graduate-level classes and seminars, and an evaluative, reflective essay of 10-15 pages that shows how the process of creating this body of work has enhanced knowledge of the methods, historiography, and historical information pertaining to a student's primary and complementary fields. The student's examination committee, consisting of the student's primary and complementary field advisors and a third faculty examiner, will review the portfolio.
2. An oral examination, which consists of a one-hour oral review of the portfolio between the examination committee and the student. The oral examination will be combined with the formal defense for students completing 6-hour theses or creative projects.

The number of papers included in the portfolio, the format of the reviews, and the scheduling of the oral review is determined by the student's concentration in the History Master of Arts program, and is described in detail in the History Department's MA Handbook.

## **Department of Modern Languages and Classics**

### **Revised:**

**TEACHING MAJOR IN FOREIGN LANGUAGE:  
GERMAN (BA/BS), 84 credits**

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CREDITS</i>
GER	101	Beginning German 1	4
	102	Beginning German 2	4
	201	Intermediate German 1	3
	202	Intermediate German 2	3
	301	Conversation	3
	302	Composition	3
	335	Civilization and Culture	3
21 credits from 300- and 400-level GER courses			21
			44 crs

344	Adv Legal Research and Writing	3
445	Adv Litigat and Alt Disp Res	3
		27 crs

**SENIOR HIGH, JUNIOR HIGH/MIDDLE SCHOOL  
EDUCATION PROGRAM**

*Professional education sequence, 40 credits*

EDFO	420	Soc, Hist, Phil Found of Ed	3
EDJH	385	Theory into Prac Mid Lev Schls	3
EDMU	205	Intro to Multicul Ed	3
EDPS	251	Development Secondary	3
	390	Educational Psychology	3
EDSE	380	Theory into Prac Second Schls	3
FL	150	Intro to Teaching WL	3
	295	FL Field Experience	1
	395	WL Methods, Reading, Materials	3
	396	Tech and Assessment in WLE	3
Student Teaching			12
			40 crs

3 credits from		
POLS	250	Access to Justice in Legal Sys (3)
or		
	455	Administrative Law (3)
		3

Complete one concentration

*Concentration 1: Public Law, 33 credits*

ACC	201	Principles of Accounting 1	3
BL	260	Principles of Business Law	3
POLS	433	The Judiciary	3
RMI	270	Principles of Risk Mgt and Ins	3

**Department of Political Science**

**Revised:**

**MAJOR IN LEGAL STUDIES (BA/BS), 69-72 credits**

This major prepares students for careers as legal assistants or paralegals. It also provides a strong foundation in law-related courses for students who plan to work in the courts, the legislature or in legal departments of government and business.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CREDITS</i>
Interdisciplinary major requirements			
Common core, 36 credits			
BL	367	Principles of Estate Planning	3
POLS	130	American National Government	3
	141	Introduction to Legal Studies	3
	241	Family Law	3
	242	Legal Research and Writing	3
	243	Litigation	3
	320	Tort Law	3

15 credits from		
COMM	340	Leadership Communication (3)
	385	Rhet of Marginalized Voices (3)
POLS	237	State and Local Politics (3)
	238	Urb Gov in United States (3)
	347	Environmental Law and Policy (3)
	408	Topics in Legal Studies (3)
	435	Intergov Conflict and Coop (3)
	443	American Constitutional Law (3)
	444	Constitutional Liberties (3)
	474	Women and Politics (3)
	475	Minority Group Politics (3)
	490	International Law (3)
PSYS	471	Psych in the Legal System (3)
RMI	330	Employee Benefits and Ret Plan (3)
SOC	221	Intro Race and Ethnic Relat (3)
	235	Sociology of Gender (3)
	320	Social Inequality (3)
	421	Racial and Cultural Minor US (3)
	425	Sociology of Law (3)
SOCW	100	Introduction to Social Work (3)
		15
6 credits from		
ACC	202	Principles of Accounting 2 (3)
CJC	101	Intro to Criminal Justice (3)
COMM	220	Argumentation and Debate (3)
	320	Persuasion (3)

	325	Interviewing (3)	
ECON	201	Elementary Microeconomics (3)	
MGT	300	Managing Behavior in Org (3)	
MKG	300	Principles of Marketing (3)	
PHIL	200	Symbolic Logic (3)	
PSYS	100	Intro to Psychological Science (3)	
RMI	473	Insurance Law (3)	
SOC	100	Principles of Sociology (3)	6

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69 crs

#### *Concentration 2: Business Law, 36 credits*

Students interested in pursuing this concentration must complete the following courses before registering for 300- and 400-level business courses.

ACC	201	Principles of Accounting 1	3
	202	Principles of Accounting 2	3
BL	260	Principles of Business Law	3
ECON	201	Elementary Microeconomics	3
	202	Elementary Macroeconomics	3
	221	Business Statistics	3
ISOM	125	Micro Apps for Business	3
	210	Business Information Systems	3

12 credits from

BL	363	Uniform Commercial Code (3)	
BUSA	302	Career Management (3)	
ECON	346	Law and Economics (3)	
FIN	300	Principles of Finance (3)	
ISOM	228	Adv Micro Apps for Business (3)	
	313	DB and Info Resource Mgt (3)	
	415	Information Systems Management (3)	
MGT	300	Managing Behavior in Org (3)	
PHIL	200	Symbolic Logic (3)	
POLS	281	Econ Pol Prob of Emerg Ntns (3)	
	347	Environmental Law and Policy (3)	
	408	Topics in Legal Studies (3)	
	433	The Judiciary (3)	
	435	Intergovernmental Relations (3)	
	443	American Constitutional Law (3)	
	444	Constitutional Liberties (3)	
	474	Women and Politics (3)	
	490	International Law (3)	
RE	230	Real Estate Principles (3)	
	331	RE Construction Law and Fin (3)	
RMI	270	Principles of Risk Mgt and Ins (3)	
	330	Employee Benefits and Ret Plan (3)	
	473	Insurance Law (3)	
SOC	425	Sociology of Law (3)	12

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72 crs

The prerequisite for ISOM 210 is *C* or better grade in ISOM 125. ECON 221 requires *C* or better grade in MATH 111, or a passing grade (*D-* or better) in MATH 132, 161, 162, 165, or 166 and a *C* or higher grade in ISOM 125 as the prerequisite.

## POLITICAL SCIENCE (POLS)

### New:

**320 Tort Law (3)** Provides a detailed overview of tort law in the United States. Topics covered include intentional torts, personal injury, negligence law, remedies, products liability and strict liability. Students will learn to analyze legal conflicts by applying methods used by legal professionals in order to identify and discuss tort law issues. Students will also prepare legal pleadings and discovery materials. Other topics include ethics and client relations.

*Prerequisite:* POLS 141 and 242.

*Open only to* Legal Studies majors.

**450 Masculinity and Politics (3)** Introduces students to the discipline of masculinity studies and shows how the discipline can enhance our understanding of politics in different historical periods. Particularly emphasizes how influential political thinkers – like Plato, Machiavelli, and Nietzsche – impacted the mutual development of masculinity and politics in the classical Greek and Roman and modern European and American worlds.

*Prerequisite:* POLS 312 or 313 or permission of the department chairperson.

**460 Public and Social Entrepreneurship and Social Change (3)** Designed to provide students with an understanding of the basic theories and concepts of public and social entrepreneurship in creating social change in our community. The course will focus on roles, structures, strategies and tactics that public and not-for-profit organizations can and do use to make change at individual, policy, and societal levels.

*Prerequisite:* POLS 237 or 342 or 350 or permission of the department chairperson.

**550 Masculinity and Politics (3)** Introduces students to the discipline of masculinity studies and shows how the discipline can enhance our understanding of politics in different historical periods. The course particularly emphasizes how influential political thinkers – like Plato, Machiavelli, and Nietzsche – impacted the mutual development of masculinity and politics in the classical Greek and Roman and modern European and American worlds.

*Not open to* students who have credit in POLS 450.

**560 Public and Social Entrepreneurship and Social Change (3)** Designed to provide students with an understanding of the basic theories and concepts of public and social entrepreneurship in creating social change in our community. The course will focus on roles, structures, strategies and tactics that public and not-for-profit organizations can and do use to make change at individual, policy, and societal levels.

*Not open to* students who have credit in POLS 460.

### Revised:

**141 Introduction to Legal Studies (3)** Course exposes students to career options within the legal studies major,

builds professional skills, and provides an overview of substantive areas of law. Topics covered include legal ethics, conducting legal research and writing, creating professional resumes, career options in the legal profession, and overview of substantive areas of legal study and practice.

*Prerequisite:* permission of the department chairperson or legal studies director.

**243 Litigation (3)** For the legal studies major focusing on litigation and related areas of paralegal responsibilities such as drafting interrogatories and writing complaints. Special attention given to learning the compilation of a trial notebook in preparation for litigation.

*Prerequisite:* POLS 141 and 242.

*Open only to* Legal Studies majors.

**281 Economic and Political Problems of Emerging Nations**

**(3)** Historical and contemporary problems of the less-developed nations. Conditions contributing to economic, political, and social change. Problems of economic development policies and programs within the institutional structure. Internal and external pressures that influence patterns of development.

*Not open to* students who have credit in ECON 279.

**290 American Foreign Policy (3)** An introduction to the process of making United States foreign policy, American strategic doctrines, and major foreign policy issues.

**312 Early Western Political Thought (3)** Analysis of political thought in the early Mediterranean and medieval worlds that became foundational to modern political theories, ideas, ideologies, and institutions in the West. Emphasizes the classical Greek and Roman periods.

**313 Modern Western Political Thought (3)** Review and analysis of selected writings of theorists in the modern era from the age of reason to the beginning of the post-modern age.

**342 Problems in Public Policy (3)** A systematic examination of the institutions and processes central to understanding and evaluating domestic public policies in the United States. Emphasizes the theoretical and political aspects of policy making at the national level and implementation within a federal system.

**345 National Defense Policy (3)** An analysis of the cultural, historical, and political forces that shape American defense policy. Emphasizes the relationships between the military services; between the Congress, the President and the Courts; the role of the media; and the larger international strategic environment.

**347 Environmental Law and Policy (3)** Study of the American political and legal system's response to environmental problems. Politics of environmental policy making, problems of policy implementation, environmental law cases, and trends toward global environmental governance are considered.

**350 Public Administration (3)** Describes theories and practices of public administration in the United States and the development, implementation, and evaluation of government policies and programs. Surveys topics such as political structures, personnel, budgets, and administrative laws and regulations.

**370 Public Opinion and Political Behavior (3)** Patterns and trends in public opinion and political behavior; processes leading to those patterns and trends; and the consequences for democratic theory, public policies, and political patterns in the United States and other countries.

*Prerequisite:* POLS 210 or permission of the department chairperson.

**375 Media and Politics (3)** Examines the impact of the media (particularly the news media) on American politics and policies. Areas of inquiry include media effects on political campaigns, public deliberation, policy formation, and political leadership.

**384 Politics in the British Isles (3)** A comparative multi-level study of the governance of the United Kingdom (England, Scotland, Wales and Northern Ireland) and the Republic of Ireland; their political cultures, party systems, political institutions, and policy problems with specific reference to the prospects of UK disintegration and of European integration.

**385 Politics of the European Union (3)** Study of the development of the European Union as an evolving political entity – its politics, institutions, policies – and the prospects for European unification.

**392 The United Nations and International Organization (3)** Concentrated study of the United Nations and other international organizations focusing on the structure, functions, and current issues facing the United Nations.

**394 International Relations in Asia (3)** A survey of contemporary international relations in Asia and the Pacific, emphasizing the roles of major powers in this area.

**395 Politics of the Global Economy (3)** Historical and theoretical introduction to the politics of international trade and payments, including barriers to trade, exchange rates, multinational corporations, financial crisis, international economic institutions, and the problems of economic development.

**411 American Political Thought (3)** An investigation of fundamental ideas and ideologies within American political thought – from the colonial period to the present – like classical republicanism, the English constitution, Puritanism, the Founding, federalism, Manifest Destiny, the Union, the frontier, democracy, capitalism, liberalism, conservatism, progressivism, individualism, and the American vision of international order.

*Prerequisite:* POLS 130 or permission of the department chairperson.

**435 Intergovernmental Conflict and Cooperation (3)**

Analysis of the role of conflict, cooperation, dependence, and interdependence among federal, state, and local governments in shaping political relationships and public policy in the American federal system. Examine major conflicts and controversies related to federalism and intergovernmental relations and identify the constitutional principles underlying them.

*Prerequisite:* POLS 237 or permission of the department chairperson.

**535 Intergovernmental Conflict and Cooperation (3)**

Analysis of the role of conflict, cooperation, dependence, and interdependence among federal, state, and local governments in shaping political relationships and public policy in the American federal system. Examine major conflicts and controversies related to federalism and intergovernmental relations and identify the constitutional principles underlying them.

*Not open to* students who have credit in POLS 435.

**Dropped/replaced**

*For dropped/replaced courses that also have revisions, the old courses are notated in parenthesis.*

**471 (371) Public Interest Groups and Government (3)**

Provides an overview of the power and impact that interest groups have on public policy in the United States.

*Prerequisite:* POLS 130 or permission of the department chairperson.

**482 (382) Government and Politics of Western Europe (3)**

A comparative analysis of the governmental institutions, electoral systems, political parties, and policy problems of the United Kingdom, France, Germany, and Italy. Their roles as national actors in the process of European integration are also considered.

*Prerequisite:* POLS 280 or permission of the department chairperson.

**486 (386) Politics of Russia and the Successor States (3)**

Examines the rise and decline of the Soviet empire and evaluates the challenges facing the current Russian government. The focus is primarily upon Russian politics, although comparisons are made with other countries in the region, in order to investigate and evaluate the political processes that are developing throughout the area.

*Prerequisite:* POLS 280 or permission of the department chairperson.

**Dropped:****229 Law Office Management and Technology (3)****340 Introduction to Law and Enforcement (3)****373 Survey Research Methods (3)****457 Alternative Dispute Resolution (3)****461 Community Planning and Its Administration (3)****465 Labor-Management Relations in Government (3)****512 Early Western Political Thought (3)****513 Modern Western Political Thought (3)****527 Voter Polling Techniques (3)****540 Introduction to Law and Enforcement (3)****545 National Defense Policy (3)****547 Environmental Law and Policy (3)****561 Community Planning and Its Administration (3)****565 Labor-Management Relations in Government (3)****573 American Political Parties (3)****584 British Government and Politics (3)****585 Politics of the European Union (3)****592 The United Nations and International Organizations (3)****594 International Relations in Asia (3)****Department of Psychological Science****Revised:****MAJOR IN PSYCHOLOGICAL SCIENCE (BA/BS),  
42 credits**

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CREDITS</i>
MATH	125	Quantitative Reasoning	3
PSYS	100	Intro to Psychological Science	3
	241	Statistics	3
	284	Research Methods in Psych Sci	4
	285	Professl Ethics in Psychology	1
	295	Career Planning in Psych	1

3 credits from Individual Differences Foundation Area

PSYS	316	Social Psychology (3)	
	317	Personality (3)	
	318	Psychopathology (3)	
	321	Developmental Psychology (3)	3

3 credits from Learning and Cognition Foundation Area

PSYS	363	Cognitive Psychology (3)	
	364	Psychology of Learning (3)	
	371	Applied Behavior Analysis (3)	3

3 credits from Diversity Foundation Area

PSYS	324	Psychology of Women (3)	
	325	Psych Prejudice Discrimination (3)	
	326	Psychology of Diversity (3)	3

3 credits from Biological Foundation Area

PSYS	362	Motivation and Emotion (3)	
	367	Introduction to Neuroscience (3)	
	368	Sensation and Perception (3)	3

3 credits from Capstone Experience

PSYS	492	Research Seminar (3)	
	499	Honors in Psychology (1-2)	3

6 credits at 300- or 400-level PSYS  
(no more than 3 credits from PSYS 478, 479, 497, or 498)

			6
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6 credits at 400-level PSYS  
(no more than 3 credits from PSYS 478, 479, 497, or 498)

			6
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42 crs

Students must earn a grade of C or better in MATH 125.

**TEACHING MAJOR IN SOCIAL STUDIES (BA/BS),  
99 credits**

*PREFIX NO SHORT TITLE CREDITS*

*Psychology concentration, 15 credits*

Refer to the Department of Psychological Science listings, p. xxx, for descriptions of these courses.

PSYS	100	Intro to Psychological Science	3
	493	Teaching Psychology 1	1
	494	Teaching Psychology 2	2

3 credits from

PSYS	367	Introduction to Neuroscience (3)	
	468	Cognitive Neuroscience (3)	3

3 credits from

PSYS	362	Motivation and Emotion (3)	
	363	Cognitive Psychology (3)	
	364	Psychology of Learning (3)	3

3 credits from

PSYS	316	Social Psychology (3)	
	317	Personality (3)	
	318	Psychopathology (3)	
	324	Psychology of Women (3)	3

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15 crs

Each student's program of study must include at least one of the following courses: PSYS 318, 363, or 468. Each student must satisfactorily complete a Psychological Science Teacher Education Portfolio in accordance with the standards published by the department.

**TEACHERS COLLEGE**

**Department of Educational Leadership  
Dropped:**

**CERTIFICATE IN CHARTER SCHOOL LEADERSHIP,  
12 credits**

**Department of Educational Studies**

**Revised:**

**Master of Arts in Secondary Education, 30-36 credits**

The Master of Arts in Secondary Education (MASE) extends the professional knowledge of teachers in four core areas: Curriculum, Multicultural Education, Pedagogy, as well as the Social Foundations of Education. The program enables practicing teachers to explore theoretical concepts that relate directly to their instruction to improve instructional effectiveness. Students may pursue additional course work in the six core areas or elect courses through which they enhance their knowledge of content. Thirty credits of graduate courses are required to fulfill the degree requirements. It is possible to complete the Master of Arts in Secondary Education via distance education or online options.

**Degree requirements**

*PREFIX NO SHORT TITLE CREDITS*

**Core requirements**

EDCU	601	Princ and Proc of Curr Dev	3
EDST	676	Res on Impact Stud Learn	3
EDTE	650	Curr Integ of Lrngg Tech	3

One course from each of the categories below

**Foundations**

EDFO	620	Soc, Hist, Phil Found Ed (3)	
	621	Education and Ethics (3)	
	631	Philosophy of Education (3)	
	641	History of American Education (3)	
	651	Educational Sociology (3)	3

**Multicultural**

EDMU	660	Multcl Multieth Ed in Amer Sch (3)	
	670	Soc and Cultl Min in Amer Ed (3)	3

**Pedagogy**

EDJH	512	Inst Strtgs Apprchs JH and MS (3)	
	534	Pract Apprchs-Stud Beh (3)	
EDSE	695	Dyn and Sec School Classroom (3)	3

Choose one of the concentrations below

*Concentration 1, 12 credits*

<b>Curriculum</b>			
EDCU	620	Se School Curriculum (3)	
	630	Jr Hi and Mid School Curr (3)	
	640	Altern School Curricula (3)	3
3 credits of additional course work from one of the above categories or from other graduate courses offered by the Department of Educational Studies			3
6 credits from minors and electives			6
			<hr/>
			30 crs

*Concentration 2, 12 credits*

One curriculum course			
<b>Curriculum</b>			
EDCU	620	Se School Curriculum (3)	
	630	Jr Hi and Mid School Curr (3)	
	640	Altern School Curricula (3)	3
9 credits in additional course work from a content area (i.e., English, Mathematics, Reading, Social Studies, Gifted and Talented, Special Education, Science, etc.)			9
			<hr/>
			30 crs

*Concentration 3, 18 credits*

18 credits in additional course work from a content area (i.e., English, Mathematics, Social Studies, Science, etc.)			18
			<hr/>
			36 crs

**SENIOR HIGH, JUNIOR HIGH, AND MIDDLE SCHOOL EDUCATION LICENSE (grades 6-12): TRANSITION TO TEACHING, 18 credits**

**Admission requirements**

- Earned baccalaureate degree from regionally accredited college or university in content area of license.
- 3.0 grade-point average (GPA) or 2.5 grade-point average plus five years of work experience in related field.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CREDITS</i>
EDFO	620	Soc, Hist, Phil Found Ed	3
EDJH	585	Princ of Tchng in Mid Schl	3
EDPS	600	Adv Educational Psych	3
EDSE	560	Student Tchng: Sec Schl (3-7)	3
	580	Prin of Tchng in Sec School	3

One course from below

<b>Methods Course in Content Area (3)</b>			
EDJH	512	Inst Strtgs Apprchs JH and MS (3)	
	534	Pract Apprchs-Stud Beh (3)	
EDSE	695	Dyn and Sec School Classroom (3)	3
			<hr/>
			18 crs

**Department of Elementary Education**

**Revised:**

**TEACHING MAJOR IN EARLY CHILDHOOD EDUCATION (Birth-Grade 3) (BA/BS), 102 credits**

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CREDITS</i>
AHS	100	Introduction to Art	3
BIO	102	Biol Concepts for Teachers	3
EDEL	100	Educ in a Democratic Society	3
	200	Plan for Elem and EC Classroom	3
	244	Early and Elem Educ Soc Just	3
	351	Teaching in the K Primary Prog	3
	400	Student Teaching: Pre-K (6-12)	
		or	
	401	Student Teaching: Kindergarten (6-12)	
		or	
	402	Student Teaching: Primary (6-12)	12
	442	Administration of EC Programs	3
EDFO	420	Soc, Hist, Phil Found of Ed	3
EDPS	260	Development Elementary	3
	393	Educational Psych Elementary	3
EDRD	204	Literature for Children (3)	
		or	
	318	Lit for Young Children (3)	3
	390	Early Emergent Literacy	3
	430	Assess Interven Read Lang Arts	3
FCFC	265	Infant and Toddler Dvlp Educ	3
GEOG	101	Earth Sea Sky: Geographic View (3)	
		or	
GEOL	101	Planet Earth Geol Environment (3)	3
HIST	201	American History, 1492-1876	3
HSC	350	Elem Schl Hlth Pgrms	3
MATH	201	Num Oper Alg Reas Elem Teach	4
	202	Data Geo Meas Elem Teach	3
	391	Teach Mathematics Elementary	3
MUSE	265	Music Basics for the Classroom	3
PHYC	101	Phys Sci Concepts for Teachers (1-3)	3
SCI	398	Teach Sci in Early Pri Grds	3
SPCE	302	Tch Studs and Dis in Gen Ed	3
SS	398	Teaching SS EC Kind-Grade 3	3
		Elective	2
			<hr/>
			90 crs

**Concentration**

EDEL	231	Family and Community Relations	3
	252	Creative Exp for Yng Children	3
	301	Tchg in the Pre-K K Program	3
	381	Early Childhood Language Arts	3

These major courses, AHS 100, BIO 102, GEOG 101 or GEOL 101, HIST 201, MATH 201, MUSE 265, PHYC 101 also fill a University Core Curriculum requirement.

**EDUCATION: ELEMENTARY (EDEL)**

**Revised:**

**400 Student Teaching – Pre-Kindergarten (6-12)** Capstone clinical experience in the practice and application of teaching skills with pre-kindergarten students. Students enroll in EDEL 400 (12) or EDEL 401 (12) or EDEL 402 (12). Offered credit/no credit only.

*Prerequisite:* completion of decision point 3; admission to student teaching: C or better grades in EDEL 301 and EDEL 381 and EDEL 351 and EDPS 393 and MATH 391 and SCI 398 and SS 398; 3.0 overall grade-point average; permission of the department chairperson.

A total of 12 credits may be earned.

**401 Student Teaching – Kindergarten (6-12)** Capstone clinical experience in the practice and application of teaching skills with pre-kindergarten students. Students enroll in EDEL 401 (12) or EDEL 400 (12) or EDEL 402 (12). Offered credit/no credit only.

*Prerequisite:* completion of decision point 3; admission to student teaching: C or better grades in EDEL 301 and EDEL 381 and EDEL 351 and EDPS 393 and MATH 391 and SCI 398 and SS 398; 3.0 overall grade-point average; permission of the department chairperson.

A total of 12 credits may be earned.

**402 Student Teaching – Primary (6-12)** Capstone clinical experience in the practice and application of teaching skills with pre-kindergarten students. Students enroll in EDEL 402 (12) or EDEL 400 (12) or EDEL 401 (12). Offered credit/no credit only.

*Prerequisite:* completion of decision point 3; admission to student teaching: C or better grades in EDEL 301 and EDEL 381 and EDEL 351 and EDPS 393 and MATH 391 and SCI 398 and SS 398; 3.0 overall grade-point average; permission of the department chairperson.

A total of 12 credits may be earned.

**Department of Family, Consumer, and Technology Education**

**Revised:**

**MAJOR IN FAMILY AND CHILD (BA/BS), 61-66 credits**

PREFIX NO SHORT TITLE CREDITS

Complete the following, 43 credits

EDPS	351	Adolescent Psychology	3
FCFC	100	Intro Family Child	1
	202	Child and Family Wellness	3
	250	Family Relations	3
	265	Infant and Toddler Dvlp Educ	3
	275	Child Development	3
	350	Families Cross Culture	3
	380	Parenting	3
	393	Present Practice Tech Fam Educ	3
	425	Grant Writing Research Methods	3
	484	Family Stressors and Crises	3
	485	Family Policy	3
	493	Family and Child Internship (3-9)	3
NUTR	240	Nutrition for Educators (3)	
	or		
	275	Personal Nutrition (3)	3
PSYS	100	Intro to Psychological Science	3

Choose one area to complete the major:

*Family and Child: Child development concentration, 18 credits*

EDEL	260	EC Curriculum and Instruction	3
	442	Administration of EC Programs	3
FCFC	310	Promot Prosocial Behav Child	3
	320	Leadership Mgt Child Dev Prog	3
	465	Adv Child Dev in Practice	3
SPCE	210	Thry and Pract in EC Spec Ed	3

*Family and Child: Child life concentration, 23 credits*

BIO	100	Biology for a Modern Society	3
	254	Biology in the Social Context	3
FCFC	310	Promot Prosocial Behav Child	3
	465	Adv Child Dev in Practice	3
	492	Prof Practice Child Life	3
HSC	371	Death and Dying	3
NUR	101	Termin Hlth Care Prof and Cons	2
	103	Health Behav: Cult Variations	3

*Family and Child: Family studies concentration, 21 credits*

EDPS	355	Adult Psychology (3)	
	or		
SOC	431	Aging and the Life Course (3)	3
FCFC	340	Life Workplace Management	3
	394	Family Services Administration	3
	475	Marriage	3
HSC	261	Health, Sex, and Family Life (3)	
	or		
PSYS	377	Psychology of Sexual Behavior (3)	3
SOCW	100	Introduction to Social Work	3
	325	Human Behav and Social Envr 2	3

61-66 crs

**MINOR IN DESIGN TECHNOLOGY, 18 credits**

PREFIX NO SHORT TITLE CREDITS



TEUD	102	Design Techniques	3
<i>Product development, 6 credits from</i>			
TDPT	210	Engineering Principles (3)	
	280	3D Prototyping (3)	
TMFG	495	Green Prototyp Upcycl (3)	6
<i>Digital documentation, 6 credits from</i>			
CM	106	CAD for Const Management (3)	
TGRA	184	Comp Applications-Graphic Arts (3)	
	286	Digital Photography 1 (3)	6
3 credits from approved elective			3
			<hr/>
			18 crs

**TEACHING MAJOR IN FAMILY AND CONSUMER SCIENCES (BA/BS), 87 credits**

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CREDITS</i>
EDTE	350	Curr Integration of Tech	3
FASH	102	Fund of Apparel Construction	3
FCED	150	Introduction to FCED	3
	261	FCED Assess Methods	3
	492	Implementation of FCED	3
	493	Coordination of FCS Programs	3
FCFC	202	Child and Family Wellness	3
	250	Family Relations	3
	315	Infant Toddler Curr Envir	3
	380	Parenting	3
HOSP	110	Prin Food Prep and Food Serv	3
	220	Meal Design and Presentation	3
NUTR	275	Personal Nutrition (3)	3
PMGT	104	Housing Decisions	3
	123	Interior Design Basics	3
SPCE	302	Tch Studs and Dis in Gen Ed	3
TEDU	102	Design Techniques	3
			<hr/>
			51 crs

**SENIOR HIGH, JUNIOR HIGH/MIDDLE SCHOOL EDUCATION PROGRAM**

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CREDITS</i>
<i>Professional education sequence, 33 credits</i>			
EDFO	420	Soc, Hist, Phil Found of Ed	3
EDJH	385	Prin of Tchng in Mid Schl	3
EDMU	205	Intro to Multicul Ed	3
EDPS	251	Development Secondary	3
	390	Educational Psychology	3
EDSE	320	Read Div Sec Cont Class	3
	380	Princ of Tchng in Sec School	3
Student teaching			12
			<hr/>
			33 crs
			<hr/>
			84 crs

Students in this program cannot minor in Infant and Toddler Specialization.

**FAMILY AND CONSUMER SCIENCES: CHILD DEVELOPMENT (FCCD)**

**Dropped:**

**400 Internship in Child Development (3-6)**

**FAMILY AND CONSUMER SCIENCES: CHILD LIFE (FCCL)**

**Dropped:**

**400 Internship in Child Life (3-6)**

**FAMILY AND CONSUMER SCIENCES: EDUCATION (FCED)**

**New:**

**261 Assessment Methods for Teacher Candidates in Family and Consumer Sciences Education (3)** An assessment of methods used to maintain a positive learning environment are covered in this course. Assessment tools and strategies pertaining to student behavior, classroom layout, and measuring skills will be discussed, created and analyzed.  
*Prerequisite:* FCED 150.

**FAMILY AND CONSUMER SCIENCES: FAMILY AND CHILD (FCFC)**

**New:**

**350 Families in Cross-Cultural Perspectives (3)** Addresses issues for professionals working with families with diverse cultural customs, beliefs, and values. Content includes the principles, processes, and key concepts involved in child rearing practices, coupling and marital processes, and general family dynamics in a cross-cultural perspective. Emphasis is on issues related to ethnic diversity, immigration, and other key concepts to consider when working with individuals and families from diverse backgrounds.  
*Prerequisite:* FCFC 250.

**493 Internship in Family and Child (3-9)** Provides the opportunity for the student to work in an internship setting to gain professional experience related to their major.  
*Prerequisite:* FCFC 315 or 393 or 465 or permission of the department chairperson.  
A total of 9 credits may be earned.

**FAMILY AND CONSUMER SCIENCES: FAMILY STUDIES (FCFS)**

**Dropped:**

**400 Internship in Family Studies (3-6)**

345	Adv Media Sales and Promotion	3
346	Sales and Promotion Writing	3
384	Electronic Media Law	3
408	Med Ethics Soc Responsibility	3
445	Sales and Promotion Management	3

**TECHNOLOGY: MANUFACTURING (TMFG)**

**New:**

**380 Advanced Prototyping: Additive Manufacturing (3)**

Experimentation and advanced technologies and techniques for designing and producing prototypes using 3D printing and other digital additive manufacturing.

*Prerequisite:* TDPT 280 or TMFG 495 or permission of the instructor.

3 credits from

COMM	251	Bus and Prof Comm (3)	
	320	Persuasion (3)	
	330	Small Group Communication (3)	
	375	Presentational Communication (3)	3

9 credits from

COMM	322	Comm and Popular Culture (3)	
ECON	116	Survey of Economics Ides (3)	
		or	
	201	Elementary Microeconomics (3)	
ENG	231	Professional Writing (3)	
HOSP	376	Intro Event Management (3)	
	477	Advanced Event Management (3)	
JOUR	250	Introduction to Advertising (3)	
	261	Principles of Public Relations (3)	
	348	Strat Comm Emerging Media (3)	
	352	Media Planning I (3)	
	355	Branding for AD and P R (3)	
MKG	300	Principles of Marketing (3)	
	310	Consumer Behavior (3)	
	320	Advertising Management (3)	
	325	Professional Selling (3)	
	420	Integrated Mkg Communications (3)	
	425	Seminar in Adv Prof Selling (3)	
	427	Sales Management (3)	
TCOM	347	Spec Tpcs Sales and Promotion (3)	6

**Department of Special Education**

**SPECIAL EDUCATION (SPCE)**

**Revised:**

**331 Technology in Education (1-3)** Introduction to computer applications in special education, including building personal computer skills, applying those skills in the classroom, customizing curriculum, and adapting a variety of technologies for learners with special needs.

A total of 3 credits may be earned.

**606 Multi-Tier System of Supports/Response to**

**Intervention: Seminar (3)** Provides the framework for the implementation of MTSS/RTI. The components of MTSS/RTI implementation and the role of school personnel in that system will be investigated. Course will assist school personnel in exploring answers to key questions facing educators who are implementing MTSS/RTI in their respective districts.

**607 Multi-Tier System of Supports/Response to**

**Intervention: Tracking Student Progress (3)** Students will study and practice the components of MTSS (RTI, PBIS) models that track student progress. Methods of progress monitoring will be explored. Course will direct students through the process of data-based decision-making across tiers of services. Models of implementation will be discussed.

45 crs

HOSP 477 requires HOSP 376 as a prerequisite. MKG 310, 320, requires MKG 300 as a prerequisite. MKG 420 requires MKG 300 as a prerequisite. MKG 425 requires MKG 300, 325 and permission of the department chairperson as a prerequisite. MKG 427 requires MKG 300 and 325 as prerequisites.

Laura Helms

Executive Director of Academic Services  
Associate Dean, University College

**Additions:**

**MAJOR IN TELECOMMUNICATIONS (BA),  
45-47 credits**

*Sales and promotion concentration, 36 credits*

TCOM	306	Programs and Audiences	3
	340	Electronic Media Sales	3
	344	Electronic Media Promotion	3