

# BALL STATE UNIVERSITY

## ACADEMIC POSTING

2017-2018

VOLUME XLIX – 1

October 26, 2017

This posting may contain all or part of the following: new, revised, and dropped programs, courses and prefixes. The posting period begins October 26, 2017. 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.*

### MILLER COLLEGE OF BUSINESS

#### MASTER OF BUSINESS ADMINISTRATION (MBA)

##### Revised:

**691 Global Strategic Management (3)** Integrative application of business knowledge to managerial decisions and action that determine the long-run performance of organizations. Deals with legal and environmental issues and strategy formulation, and implementation in a global setting.

*Prerequisite:* completion of 12 credits of MBA core courses; full admission to a graduate program in the Miller College of Business.

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

#### Department of Economics

#### ECONOMICS (ECON)

##### Revised:

**348 Health Economics (3)** Examines how institutions and incentives affect the health care choices people make. Topics includes the demand and supply of medical care, the effects of health insurance, professional licensing, pharmaceutical regulations, and government involvement in health care.

*Prerequisite:* minimum grade of C or better in ECON 201 and 221.

#### Department of Information Systems and Operations Management

##### Revised:

#### MASTER OF ARTS IN CAREER AND TECHNICAL EDUCATION, 30-36 credits

The degree is designed for secondary or post-secondary educators of trade-related programs or persons in an industry seeking a program that includes training techniques, safety, and technical courses. This program may be completed entirely through distance education. The program is also designed for students who wish to acquire an advanced-level teacher license in career and technical education or to add a career and technical area to a current teacher license of another area.

##### Admission requirements

Applicants must meet the admission requirements of the Graduate School.

PREFIX	NO	SHORT TITLE	CREDITS
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Professional courses: must complete at least 9 credits

CTE	550	Student Organization in Edu (3)	
	560	Occupational Safety and Health (3)	
	569	Organization Coordination CTE (3)	
BED	622	Instr Materials Strategies (3)	
	625	Problems and Issues (3)	9-15

Research methods requirements

BED	616	Research Methods and/or	3
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Research concentration, 3-6 credits from

CRPR	698	Creative Project (3 or 6)	
RES	697	Research Paper (1-3)	
THES	698	Thesis (1-6)	3-6

CTE, BED, and other directed electives with program advisor approval)

9-18

30-36 crs

BED 616 is a program requirement and a prerequisite for those pursuing a research concentration. Six advisor designated CTE and BED courses are required for Indiana Career and Technical Education teacher licenses in a trade and industrial program area.

## **DIRECTOR OF CAREER AND TECHNICAL EDUCATION, 30 credits**

### **Initial Practitioner License Requirements**

Designed for students who seek a Director of Career and Technical Education license required for administering career programs and facilities. This addresses Indiana REPA license requirements.

### **Admission requirements**

Applicants must meet the admission requirements of the Graduate School.

### **Who can qualify?**

Candidates must meet the following:

1. Hold one (1) of the following licenses:
  - (A) A Proficient Practitioner license or Accomplished Practitioner license with at least one (1) of the content areas in career and technical education according to the Indiana Standard License Assignment Code.
  - (B) A Workplace Specialist II license with two (2) years of full-time teaching experience in an accredited vocational school in the grade level and vocational content area listed on the license.
  - (C) A Proficient or Accomplished Practitioner License in Building Level Administrator, Superintendent, Director of Curriculum and Instruction, or Director of Exceptional Needs.
  - (D) A Proficient or Accomplished Practitioner license that includes the content area of Business or Technology education.
2. Successfully complete the content for director of career and technical education.
3. Successfully complete a master's degree.

### **Also required:**

Verified valid CPR/Heimlich Maneuver certification and Suicide Prevention training through a state approved training program. Also, complete a required state criminal background check.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CREDITS</i>
EDAC	631	Adult and Community Education (3)	
		or	
	632	Org Ad and Comm Ed Progs (3)	3
EDAD	600	Intro to Ed Leadership	3
	684	Educational Finance and Ethics	3
	695	Career Tech Director Intern (3 or 6)	6
SPCE	637	Org and Admin of Spec Ed	3

6 credits in EDAD 695 are required unless the student previously took an internship for another administrative license, in which case 3 credits may be required pending review.

3 credits from			
BED	625	Problems and Issues (3)	
CTE	568	Principles and Philosophy CTE (3)	
FCED	692	FCS Educ Prog Implementation (3)	3

3 credits from			
BED	593	Phil Org Adm CTE (3)	
CTE	569	Organization Coordination CTE (3)	3

3 credits from			
BED	592	Work-Based Learning (3)	
	622	Instr Materials Strategies (3)	
CTE	552	Strategies and Materials CTE (3)	
	696	Coordinating Coop Programs (3)	3

3 credits from			
BED	616	Research Methods (3)	
EDPS	640	Research Methods (3)	
FCS	697	Research Methods in FCS (3)	3

30 crs

## **CAREER AND TECHNICAL EDUCATION (CTE)**

### **Revised:**

#### **550 (TEDU 550) Student Organizations in Education (3)**

Emphasizes the development, operation, and evaluation of career and technical education and other student organizations, with a concentration on co-curricular and extracurricular organizations.

#### **552 (TEDU 552) Strategies and Materials for Career and Technical Education (3)**

A study of resources, instructional materials, and strategies for career and technical education programs.

#### **560 (TMFG 560) Occupational Safety and Health (3)**

A study of the practices used to ensure a safe and healthful environment for business, education, and industrial sectors. Examines hazard recognition and correction and the impact of safety and health regulating agencies.

**568 (TEDU 568) Principles and Philosophy of Career and Technical Education (3)** Principles and philosophies of career and technical education programs are investigated. The role of legislation is analyzed.

**569 (TEDU 569) Organization and Coordination of Career and Technical Education (3)** Examines organizational structures, responsibilities, programs, and facilities dedicated to career and technical education. Current legislation directly impacting these programs will also be examined.

**696 (TEDU 696) Coordinating and Conducting Cooperative Education Programs (3)** Examines the regulations and guidelines governing the coordination of cooperative education programs and unique methods and strategies used to facilitate work-based learning.

## **INFORMATION SYSTEMS AND OPERATIONS MANAGEMENT (ISOM)**

### **Revised:**

**112 Computer Applications for Design Solutions (3)**  
Focuses on using computer applications such as Adobe Acrobat, Illustrator, Photoshop, an InDesign for processing design solutions in business. The design process and these contemporary computer applications will be discussed and used to create products which are design solutions to business problems. To solve these business problems, cognitive skills associated with knowledge to judgement transformations will be utilized.

**551 Operations Management (3)** Discusses methods and models for managing the operations function in service and manufacturing organizations. Topics include operations strategy, forecasting, operations planning and control, materials and inventory management, operations and staff scheduling, and quality management.  
*Prerequisite:* ECON 221 or equivalent; full admission to a graduate program of the university.

*Not open to* students who have credit in ISOM 351 or equivalent.

## **TECHNOLOGY: EDUCATION (TEDU)**

### **Dropped:**

**550 Career and Technical Education Student Organizations (3)**

**552 Strategies and Materials for Career and Technical Education (3)**

**568 Principles and Philosophy of Career and Technical Education (3)**

**569 Organization and Coordination of Career and Technical Education (3)**

**696 Coordinating and Conducting Cooperative Education Programs (3)**

## **TECHNOLOGY: MANUFACTURING (TMFG)**

### **Dropped:**

**560 Occupational Safety and Health (3)**

## **Department of Management**

### **ENTREPRENEURSHIP (ENT)**

#### **New:**

**369 Entrepreneurship Internship (3)** Job experience (paid) in an organization with an approved entrepreneurial company. Requires periodic reports that will be evaluated by the assigned faculty member and the intern's supervisor.

*Prerequisite:* ENT 346 and permission of the department chairperson or internship coordinator.

*Open only to* entrepreneurial management majors.

#### **Revised:**

**241 (MGT 241) The Entrepreneurial Experience (3)** An introductory course focusing on the generation of innovative business ideas, the creation of business ventures, and the role of entrepreneurship within society. Presents the skills and process knowledge needed to create an innovative solution to a real-world market opportunity.

**244 (MGT 244) Social Entrepreneurship (3)** Exploration of ventures started for social food, whether not-for-profit or for-profit. Examines implications of starting ventures for the greater good of society.

**341 (MGT 341) Opportunity Identification (3)** Creatively identifying and developing an entrepreneurial opportunity through market feedback. Exploring an opportunity through interaction with potential customers and industry experts.

*Prerequisite:* ENT 241.

*Open only to* entrepreneurial management majors.

**342 (MGT 342) Marketing for New Ventures (3)** A survey course covering principles of market research and marketing. Students will learn how to perform market research and test the demand for a product/service, determining its marketing feasibility. In addition, they will learn how to create a marketing plan that includes their decisions regarding product, promotion, price, and distribution.

*Prerequisite:* ECON 116 or 201 or ACC 201 with a minimum grade of C; ENT 241.

**343 (MGT 343) Venture Leadership (3)** Examines the importance of a holistic understanding of ventures, including strategy, management, operations, human capital, funding, stewardship, and financial management.

*Prerequisite:* ECON 116 or 201 or ACC 201 with a minimum grade of C; ENT 241.

**345 (MGT 345) Management for New Ventures (3)** A survey course highlighting the foundational principles and best practices for managing the start-up process and the human resources involved in a new venture creation. Students will learn how to plan the business launch and operations, as well as how to select, train, compensate, and promote employees.

*Prerequisite:* ECON 116 or 201 or ACC 201 with a minimum grade of C; ENT 241 and 342 and 343.

*Prerequisite or Parallel:* ENT 343.

**346 (MGT 346) Product and Service Design (3)** The product design aspect focuses on establishing product functionality, developing blueprints, listing parts and materials, and identifying specific manufacturing processes at the parts level. Service design aspect, where applicable, focuses on detailed service process design ranging from bundling of services with products to micro-level service process flows.

*Prerequisite:* ENT 341.

*Open only to* entrepreneurial management majors.

**347 (MGT 347) Business Model Generation (3)** An interactive environment where students work with stakeholders on strategic perspectives and the development of an economically feasible business model towards the capstone project.

*Prerequisite:* ENT 346.

*Open only to* entrepreneurial management majors.

**441 (MGT 441) Entrepreneurial Decision Making (3)**

Teams of students consult with organizations on specific problems or opportunities in such areas as production, marketing, financial analysis, and other related entrepreneurial or managerial issues. Students will be exposed to contemporary challenges in entrepreneurial management and asked to solve problems from real-world scenarios.

*Prerequisite:* ENT 347 and 443.

*Open only to* entrepreneurial management majors.

**443 (MGT 443) Venture Financing (3)** Examines the venture financing options available for new business startups. Emphasizes creating and analyzing financial documents, approaching financial sources, selling stock for growing companies, and managing the financial condition of a new venture.

*Prerequisite:* ENT 241, 346; FIN 300.

*Open only to* entrepreneurial management majors.

**449 (MGT 449) New Venture Creation (3)** Requires the development of a thorough business plan that must be approved by an external panel of executives and entrepreneurs.

*Prerequisite:* ENT 347 and 443.

*Open only to* entrepreneurial management majors.

## **FAMILY AND CONSUMER SCIENCES: FOODS AND NUTRITION (FCFN)**

### **Revised:**

**369 Internship in Food or Hospitality Management (3)**

Provides the opportunity for the student to work in an established internship setting to gain professional experience in one's specific area of study.

*Prerequisite:* FCFN 147 and 210 and 250 and 376 or 400; documented experience of at least 300 hours in a food, event/meeting, or hotel establishment, and an additional 100

hours of customer service either directly or indirectly related to the hospitality industry. Hours must have been accumulated within prior 4 years. Documented attendance of internship meeting prior to registering for the course, and permission of HFM internship director or department chairperson.

*Open only to* hospitality and food management majors.

**395 Food and Culture (3)** Explores the relationships between agricultural practices, diet patterns, food procurement and distribution, nutrition, and religious dietary doctrines from a national and global perspective. Emphasis on how culture, national and international policies, and belief systems shape food consumption patterns.

## **MANAGEMENT (MGT)**

### **Revised:**

**369 Management Internship (3)** Job experience (paid) in an organization with an approved innovative management program. Requires periodic reports that will be evaluated by the assigned faculty member and the intern's supervisor.

*Prerequisite:* MGT 300; permission of the department chairperson or internship coordinator.

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

### **Dropped:**

**241 The Entrepreneurial Experience (3)**

**244 Social Entrepreneurship (3)**

**341 Opportunity Identification (3)**

**342 Marketing for New Ventures (3)**

**343 Venture Leadership (3)**

**345 Management for New Ventures (3)**

**346 Product and Service Design (3)**

**347 Business Model Generation (3)**

**441 Entrepreneurial Decision Making (3)**

**443 Venture Financing (3)**

**449 New Venture Creation (3)**

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

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

## INFORMATION AND COMMUNICATION SCIENCES (ICS)

### Revised:

**601 Problems in Information and Communication Sciences and Lab (3)** Foundation course for the ICS Master's program. Serves as the initial vehicle for exploring the broad spectrum of problems and issues and the contexts in which they occur in the information and communication fields today. Explores the integrated nature of problems involving human communication, technologies, and the leadership and management of organizations in the change-driven information economy. Helps students consider the complex and changing nature of problems in the field and encourages the development of holistic thinking and integrated approaches in problem solving as professionals, managers, and leaders. Includes performance-based, hands-on experiences.

**602 Human Communication: Process and Theory (3)** Examines effective communication in the professional setting by providing students an opportunity to improve upon their interpersonal and organizational communication skills. Teaches students about the theory and practice of communication, and how they work together to form the praxis of communication. This course is able to reach its goals through active participation by the students in the class discourses, as well as in formal presentations and research projects.

**620 Telecom Technologies, Standards, and Lab (4)** This course and its companion, ICS 621 (offered only in the spring semester), are required of all students in the M.S. degree program of Information and Communication Sciences. ICS 620 is a recommended precursor to ICS 621 and ICS 648 and the Internetworking elective courses. It is a technical component of the core curriculum developed to address the various technologies employed in information and communication systems and services. Concentrates on understanding the basic technologies employed in today's information and communication technology industry to provide fundamental engineering knowledge and examine the application of the technologies in business. ICS 620 is a 4-credit course that is rigorous by its content and design, which is presented through class lectures, research and presentations related to ICT, and hands-on labs. Intended to explore, expand and test student knowledge of current applications of existing and new technologies in the marketplace.

**621 Information Communication Technologies: Collection, Storage, Movement and Analysis Technologies (4)** This course and its companion, ICS 620, are required of all students in the M.S. degree program of Information and Communication Sciences. Students are encouraged to take ICS 620 prior to this course. Students taking this course out of sequence are required to be advised by the Director or Associate Director prior to registering. Explores the various technologies used in the ICT field – systems, theories, components and devices – employed in the ICT business environment. An emphasis will be on the use of these

technologies to assist the various verticals within our economy and the emerging technologies of today. ICS 621 is a 4-credit course that includes hands-on labs which support the theories and concepts covered in lecture, projects and readings.

**623 Systems Engineering in Information & Communication Technology (3)** Provides students with theoretical and practical experiences in planning and organizing the technical aspects of projects, analyzing the problems posed by the stakeholders, and defining the stakeholders' problem by converting needs and expectations into validated and integrated technical requirements. Students will also learn how to develop detailed technical requirements to the extent necessary to enable feasible and economical design solutions, assess and evaluate alternatives which may satisfy the needs and expectations, and select a balanced solution for each systems element, as well as a balanced solution for the systems as a whole.

**630 Research Methodologies and Problems Seminar (3)** Intends to provide graduate students with the thought processes and methodologies for business problem solving, undertaking research to address problems, acquiring and analyzing data, as well as reporting on and using the results from gathered research. As an exercise in thinking about the research process, each student is expected to select an area for individual research and to design a research project appropriate to that area. From this experience, students are prepared for applied research in an information and communication environment, and understand how to effectively present the results.

**642 Regulatory Research in Context/Problems in Information Communication (3)** This is a required course for students in the M.S. degree program of CICS, and optional for the M.A. degree program in Telecommunications. It is a component of the core curriculum intended to address issues surrounding the public and private policies of telecommunication systems and services. Includes the rigorous study of legislative and regulatory environments and how to develop successful public policy campaigns in the information age. Intended to expand and test student knowledge of the current public policy arena. Class sessions are composed of lecture, dialogue and discussion. Students are required to participate in meaningful discussion of the topics and related case law. Begins with a brief overview of regulation from the early twentieth century; however, a significant portion of the semester will be devoted to the post-1982 changes deregulating the telephone, cable, broadcast industries, and the Internet.

**660 Human Factors, Needs Assessment, and User-Driven Design (3)** Intended to provide insights into the human aspects of information and communications systems planning, design, implementation, and evaluation. Includes the practice of project management techniques, needs assessment instruments and problems and opportunities involved with transparent system and user-driven technology development and deployment. Examines the user experience (UX) user needs, values, abilities and limitations within the context of business

goals and objectives. This is a research and project based course.

**695 Independent Study (1-3)** Individual study of specific topics in information and communication sciences. Group and individual investigations are included.

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

## Department of Journalism

### JOURNALISM (JOUR)

#### New:

**653 Data Visualization (3)** Focuses on data visualization for journalism, media analytics, and strategic communication. Students will gain experience in advanced reporting and developing interactive charts, diagrams, and maps based on large databases that they generate through best practices in data mining and scraping, as well as from social media and web analytics data sources. Students will examine recent changes in the data visualization field via theoretical and applied scholarly research.

*Prerequisite:* JOUR 615 or 623 or 651, or by permission of the graduate director.

**654 Content Strategy and Media Analytics Consulting (3)** Immersive-learning experience to turn knowledge of media analytics into action for a community partner. Integrates theoretical and applied research in audience analytics and engagement. Students analyze the effectiveness of content strategies by a community partner and provide recommendations based on media analytics, metrics, and user experience testing.

*Prerequisite:* JOUR 651, or by permission of the graduate director.

#### Revised:

**615 Data Journalism and Research Methods (3)** Introduction to in-depth reporting and research methods, with emphasis on both traditional scholarly approaches (quantitative and qualitative) as well as the application of social scientific techniques to the journalistic production of news (collection, analysis, and visualization of data).

**656 (606) Media Management and Entrepreneurship (3)** News media management, exploring news media operations, newsroom dynamics, and the organizational, leadership, and decisions-making processes critical to managing in an industry in a time of transition, innovation, and entrepreneurship.

#### Dropped:

**606 Media Management and Entrepreneurship (3)**

### PUBLIC RELATIONS (PR)

#### Revised:

**605 Business Fundamentals and Entrepreneurship in Public Relations (3)** Basic business entrepreneurship skills and knowledge related to managing public relations or advertising firms or public relations departments in corporations, non-profits, or government agencies.

**662 Case Studies of Global, Digital and Ethical Public Relations Practice (3)** Study and critical analysis of how professionals handle public relations problems in a variety of circumstances, including global, digital and ethical contexts.

#### Dropped:

**620 Seminar in Public Relations Foundations (3)**

## Department of Telecommunications

**Correction** (Per TCOM department):

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

PREFIX	NO	SHORT TITLE	CREDITS
<i>News concentration, 47 credits</i>			
CCIM	210	Professional Development	1
JOUR	101	Media and Society	3
	103	Introduction to Visual Comm	3
	302	Diversity and Media	3
	369	Internship (0-12)	2
NEWS	105	Journ Storytelling: Intro	3
	108	Fndtns Great Storytellers	1
	109	Fndtns Ethic Legal Principles	1
	120	Newsgathering: Sourcing	2
	131	Multimedia: Stills	1
	132	Multimedia: Audio	1
	133	Multimedia: Video	1
	197	Introduction to Student Media	1
	215	News Editing	2
	221	Storytelling: Covering Issues	3
	233	Specialized Story Form	3
	240	Current Issues 1	1
	340	Current Issues 2	1
	370	Media Analytics	1
	397	Immersion: Special Topics	3
	409	Fndtns Ethical Legal Issues	2

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39 crs

6 credits from

JOUR	242	Programming Interactive Media (3)
	311	News Feature Writing (2)
	312	Opinion Writing (2)
	322	Sportswriting and Reporting (2)
NEWS	418	Specialty Reporting (2-6)
TCOM	324	News Videography (2)
	326	Presentation Techniques (2)

426 News Producing (2) 6

2 credits from

JOUR 413 Advanced Newswriting Reporting (2)  
 TCOM 422 Adv Video and Audio Reporting (2) 2

47 crs

Students enrolled in the news concentration also are required to complete a minor outside the departments of journalism and telecommunications (the Minor in Sports Studies and the Minor in Film/Screenwriting are acceptable). Four semesters or equivalent of one modern or classical language at the college level are required.

## TELECOMMUNICATIONS (TCOM)

### Revised:

**333 Advanced Digital Audio Production (3)** Application of elaborate audio acquisition and editing techniques for broadcasting, Internet, and cinema applications, including an introduction to surround sound.

*Prerequisite:* pre-telecommunications core courses with C (2.0) or better grades in each, and a 2.5 grade-point average for these courses; TCOM 330, 331, 332.

*Open only to* approved telecommunications majors and minors.

**334 Advanced Digital Video Production (3)** Production of complex storytelling projects. Finding the unusual story in the usual place. Shooting coverage, use of music, and advanced post-production techniques will be covered. All students will be required to produce multiple stories.

*Prerequisite:* pre-telecommunications core courses with C (2.0) or better grades in each, and a 2.5 grade-point average for these courses; TCOM 330, 331, 332.

*Open only to* approved telecommunications majors and minors.

### Corrections (Per TCOM department):

**397 Immersion: External Projects (1-6)** Student-driven immersive experience utilizing particular elements of the telecommunications field in collaboration with another academic department and faculty. Student team produces tangible outcome or product of benefit to campus, local, state, national, or international community.

*Prerequisite:* permission of the department chairperson. A total of 6 credits may be earned.

*Open only to* approved telecommunications majors and minors.

**497 Immersion: Internal Projects (1-6)** Student-driven immersive experience utilizing telecommunications and directed by TCOM faculty. Tangible outcome or product is of benefit to campus, local, state, national, or international community.

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

A total of 6 credits may be earned.

## COLLEGE OF FINE ARTS

### Department of Theatre and Dance Correction:

#### MAJOR IN THEATRE (BFA), 85-87 credits

*Musical theatre concentration, 53 credits*

\*Remove line that states, "Students are expected to take or place out of THEA 232, 333."

### THEATRE (THEA)

#### Correction:

##### 334 Studio 1 (3)

*Remove THEA 333 as a prerequisite.*

##### 335 Studio 2 (3)

*Remove THEA 333 as a prerequisite.*

##### 430 Studio 7 (3)

*Remove THEA 333 as a prerequisite.*

## COLLEGE OF SCIENCES AND HUMANITIES

### Department of Chemistry

#### Revised:

#### MINOR IN CHEMISTRY, 22 credits

High school mathematics equivalent to MATH 108 is required.

PREFIX	NO	SHORT TITLE	CREDITS
CHEM	111	General Chemistry 1	4
	112	General Chemistry 2	4
	225	Chemical Analysis	3
	230	Org Chem Life Sciences (3)	
	or		
	231	Organic Chemistry 1 (3)	3
	241	Organic Laboratory 1	1
7 credits from approved electives in CHEM			7
			<hr/> 22 crs

#### TEACHING MAJOR IN CHEMISTRY (BA/BS), 88-90 credits

PREFIX	NO	SHORT TITLE	CREDITS
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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
	410	Review of Chem Fundamentals	1
	444	Physical Chemistry 1	4
	450	Inorganic Chemistry	3
	463	Principles of Biochemistry 1	3

3 credits from HONR 499 or approved CHEM Internship (369) or Research (470) 3

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33 crs

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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49-51 crs

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

PREFIX	NO	SHORT TITLE	CREDITS
<i>Professional education sequence, 39 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	380	Princ of Tchng in Sec School	3
SCI	150	Bsc Con in Science Education	3
	295	Intro to the Teaching of Sci	3
	396	Using Sci Methods and Mats	3
Student teaching			12

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39 crs

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88-90 crs

See Professional Education Assessment/Decision Points, p. 389, for additional information.

## CHEMISTRY (CHEM)

### New:

**230 Organic Chemistry for the Life Sciences (3)** One-term sophomore level service course which focuses on the structure and reactivity of the functional groups which are directly relevant to biochemistry. Consolidates the relevant fundamental principles of organic chemistry with less depth

than the CHEM 231/232 two-term organic sequence, and will prepare students for the one-term CHEM 360 (Essentials of Biochemistry) course. Each topic will include biologically relevant examples and applications.

*Prerequisite:* CHEM 112 with a grade of C or better.

*Parallel:* CHEM 241.

*Not open to* students who have credit in CHEM 231 or chemistry majors and chemistry teaching majors.

**241 Organic Chemistry Laboratory 1: Fundamental Techniques (1)** One-term sophomore level laboratory course designed to be taken in the same semester as the first term of organic chemistry lecture. This lab course will introduce students to the fundamental principles and laboratory techniques of organic chemistry including extraction, recrystallization, separation, distillation, chromatography and characterization.

*Prerequisite:* CHEM 112 with a grade of C or better.

*Parallel:* CHEM 230 or 231.

**242 Organic Chemistry Laboratory 2: Synthesis and Characterization (1)** One-term sophomore level laboratory course designed to be taken in parallel with CHEM 232 lecture course. This lab course will introduce students to chemical reactions and functional group transformations related to halogens, aromatic rings, ketones, aldehydes, carboxylic acids, alcohols, imines, and amines.

*Prerequisite:* CHEM 231 and 241 with a grade of C- or better in each.

*Parallel:* CHEM 232.

**361 Introductory Biochemistry Laboratory (1)** One-term sophomore level laboratory course designed to complement the one-term biochemistry lecture. It is designed to introduce chemistry of biological molecules and to emphasize important laboratory techniques in biochemistry. Topics include carbohydrate, amino acid, and protein chemistry as well as enzyme kinetic analyses, electrophoresis, and ultraviolet/visible spectral analysis.

*Prerequisite:* CHEM 241 with a final grade of C- or better.

*Parallel:* CHEM 360.

### Revised:

**231 Organic Chemistry for Molecular-Based Sciences: Part 1 (3)** First course in a two-semester sophomore level sequence which focuses on introductory organic chemistry. This first semester will focus on structure and fundamental properties of organic molecules, and will introduce principles of reactivity. Designed for chemistry majors, pre-professional majors requiring organic chemistry, and other molecular science based majors.

*Prerequisite:* CHEM 112 with a grade of C or better.

*Parallel:* CHEM 241.

**232 Organic Chemistry for Molecular-Based Sciences: Part 2 (3)** Second course in a two-semester sophomore level sequence which focuses on introductory organic chemistry. This second semester will continue directly from CHEM 231 and will focus on reactivity of the common functional groups, an introduction to the spectroscopic techniques relevant to



organic chemistry, and synthesis. Designed for chemistry majors, pre-professional majors requiring organic chemistry, and other molecular science based majors.

*Prerequisite:* CHEM 231 with a grade of C- or better.

*Parallel:* CHEM 242.

**360 Essentials of Biochemistry (3)** One-term service course designed for students in life sciences, dietetics, and medical technology. Consolidates the relevant fundamental principles of biochemistry with less depth than the CHEM 463/464 two-term biochemistry sequence. The biochemistry of proteins, carbohydrates, lipids, and nucleic acids will be covered, as well as an introduction to metabolism and the regulation of metabolic processes.

*Prerequisite:* CHEM 230 or 232 with a minimum grade of C-.

*Parallel:* CHEM 361.

*Not open to* chemistry majors and chemistry teaching majors.

**410 Review of Chemistry Fundamentals (1)** Senior level capstone course which reviews fundamental chemistry concepts in the areas of physical, organic, inorganic, analytical, and biochemistry and develops critical thinking skills. Focus will be placed on reviewing this material and by practicing multiple choice questions in order to prepare the students for objective tests such as the ETS Major Field Test in Chemistry and the Graduate Record Exam in Chemistry.

*Prerequisite:* CHEM 225.

*Parallel:* CHEM 444 or 445.

*Open only to* chemistry majors.

**430 Intermediate Organic Laboratory Techniques (2)**

Upper-level laboratory course that includes multistep syntheses of organic compounds and their isolation, purification, and characterization using modern spectroscopic and chromatographic techniques. Six hours of laboratory weekly.

*Prerequisite:* CHEM 232 and 242 with a grade of C- or better.

**440 (340) Selected Principles of Physical Chemistry (3)**

Some of the well-established physical concepts that allow us to understand basic chemical phenomena at the molecular level will be explored. Topics include, but are not limited to, quantum chemistry, group theory, spectroscopy, and chemical kinetics. Understanding these fundamental physical chemistry principles will provide the basic framework for all other branches of chemistry.

*Prerequisite:* CHEM 232 and MATH 161.

*Not open to* students who have credit in CHEM 444.

**444 (344) Physical Chemistry 1 (4)**

Some of the well-established physical concepts that allow us to understand basic chemical phenomena at the molecular level will be explored. Topics include, but are not limited to, quantum chemistry, group theory, spectroscopy, and chemical kinetics. Understanding these fundamental physical chemistry principles will provide the basic framework for all other branches of chemistry.

*Prerequisite:* CHEM 232 and MATH 166; PHYC 110 and 112 or 120 and 122.

**445 (345) Physical Chemistry 2 (4)** Underlying physical principles that govern the properties and behavior of chemical systems will be addressed. These concepts will include the thermodynamic (classical and statistical) description of chemical processes and properties of solids, liquids, gases, and solutions. Concepts such as heat, work, enthalpy, entropy, and free energy will be taught. Understanding these physical chemistry principles will provide the basic framework for all other branches of chemistry.

*Prerequisite:* CHEM 232 and MATH 166; PHYC 110 and 112 or 120 and 122.

**450 Inorganic Chemistry (3)** Chemistry of the elements, including the relationships of chemical properties and atomic and molecular structure, chemical bonding acid-base theories, chemical periodicity, and modern theories of coordination compounds. Three hours of lecture weekly.

*Prerequisite:* CHEM 232 with a minimum grade of C- and MATH 165.

**454 Inorganic Chemistry and Organometallic Synthesis**

**Laboratory (2)** Practice and principles of both the synthesis and the characterization of inorganic and organometallic compounds. One hour of lecture and three hours of laboratory weekly.

*Prerequisite:* CHEM 232 and 242 with a minimum grade of C- and MATH 165.

*Parallel:* CHEM 450.

**465 Biochemistry Laboratory Techniques (2)** One-term laboratory with lecture course designed to introduce and emphasize important laboratory techniques in biochemistry. Topics include bioinformatics, PCR, nucleic acid purification, enzyme kinetic analyses, electrophoresis, high performance liquid chromatography, fluorescence spectrometry and ultraviolet/visible spectral analysis.

*Prerequisite:* CHEM 232.

*Prerequisite or parallel:* CHEM 463.

**540 Selected Principles of Physical Chemistry (3)** Some of the well-established physical concepts that allow us to understand basic chemical phenomena at the molecular level will be explored. Topics include, but are not limited to, quantum chemistry, group theory, spectroscopy, and chemical kinetics. Understanding these fundamental physical chemistry principles will provide the basic framework for all other branches of chemistry.

*Prerequisite:* CHEM 232; MATH 161 or 165; PHYC 110 and 112 or 120 and 122.

*Not open to* students who have credit in CHEM 440 or 444.

**544 Physical Chemistry 1 (4)** Some of the well-established physical concepts that allow us to understand basic chemical phenomena at the molecular level will be explored. Topics include, but are not limited to, quantum chemistry, group theory, spectroscopy, and chemical kinetics. Understanding

these fundamental physical chemistry principles will provide the basic framework for all other branches of chemistry.

*Prerequisite:* CHEM 232; MATH 166; PHYC 110 and 112 or 120 and 122.

*Not open to students who have credit in CHEM 444.*

**545 Physical Chemistry 2 (4)** Underlying physical principles that govern the properties and behavior of chemical systems will be addressed. Concepts will include the thermodynamic (classical and statistical) description of chemical processes and properties of solids, liquids, gases, and solutions. Concepts such as heat, work, enthalpy, entropy, and free energy will be taught. Understanding these physical chemistry principles will provide the basic framework for all other branches of chemistry.

*Prerequisite:* CHEM 232; MATH 166; PHYC 110 and 112 or 120 and 122.

*Not open to students who have credit in CHEM 445.*

**550 Inorganic Chemistry (3)** Chemistry of the elements, including the relationships of chemical properties and atomic and molecular structure, chemical bonding acid-base theories, chemical periodicity, and modern theories of coordination compounds. Three hours of lecture weekly.

*Prerequisite:* CHEM 232 with a minimum grade of C- and MATH 165.

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

## Dropped:

**340 Selected Principles of Physical Chemistry (3)**

**344 Physical Chemistry 1 (4)**

**345 Physical Chemistry 2 (4)**

## Department of English

### Revised:

**MASTER OF ARTS IN ENGLISH, 30-33 credits**

**Master of Arts in English (Creative Writing), 33 credits**

#### Admission requirements

Applicants must meet the admission requirements of the Graduate School and have an undergraduate grade-point average (GPA) of at least 3.0. To apply, submit a statement of purpose (750-1000 words), a sample of creative writing (8-15 pp), three letters of recommendation, and Graduate Record Examination (GRE) scores. Non-native speakers of English may submit Test of English as a Foreign Language (TOEFL) scores in place of GRE scores. Non-native speakers of English must have a TOEFL score of at least 79, or an IELTS score of at least 6.5, in order to be eligible for enrollment.

#### Degree requirements

<i>PREFIX NO</i>	<i>SHORT TITLE</i>	<i>CREDITS</i>
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Foundation, 3 credits from			
ENG	610	Read and Writ Across Genres	3

Directed electives, 6 credits from			
ENG	605	Teaching in English Studies	3
	614	Practicum in Literary Editing	3
	635	Spec Topics in Creative Writ	3
	636	Reading as Writers	3

#### Workshop

Complete 12 credits (4 courses) from this menu of writing workshops. These can be repeated for credit or students can take different workshops in a variety of genres.

ENG	611	Workshop Creative Nonfiction	3
	612	Workshop in Fiction Writing	3
	613	Workshop in Poetry Writing	3
	615	Workshop in Screenwriting	3

#### Literature

Complete two graduate courses in literature	6
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#### Electives

Complete one approved elective (Students may repeat ENG 610 as a directed elective)	3
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#### Capstone

CRPR	698	Creative Project (3-6)	3
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33 crs

ENG 605 is to be taken as "Creative Writing" to fulfill the directed elective course requirement.

**Master of Arts in English (English Studies), 32 credits**

#### Admission requirements

Applicants must meet the admission requirements of the Graduate School and have an undergraduate grade-point average (GPA) of at least 3.0. To apply, submit a statement of purpose (750-1000 words), a sample of scholarly or critical writing (8-15 pp double-spaced), three letters of recommendation, and Graduate Record Examination (GRE) scores. Non-native speakers of English may submit Test of English as a Foreign Language (TOEFL) scores in place of GRE scores.

#### Degree requirements

<i>PREFIX NO</i>	<i>SHORT TITLE</i>	<i>CREDITS</i>
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Core requirements		
Approved courses in English		15-29

#### Research requirements

ENG	601	Research in English Studies (3)	
		or	
RES	697	Research Paper (1-3)	
		or	
THES	698	Thesis (1-6)	3-6

ENG electives (electives outside the department are subject to departmental approval)	0-14
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 32 crs

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

PREFIX	NO	SHORT TITLE	CREDITS
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)	
	332	Phonetics and Phonology (3)	
	438	TESOL Curric Dev and Assess (3)	
	457	Practicum in TESOL (3)	6

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 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.

**ENGLISH (ENG)**
**New:**

**635 Special Topics in Creative Writing (3)** Variable topics course in creative writing.

*Prerequisite:* permission of the department chairperson.

A total of 6 credits may be earned, but not more than 3 in any one semester or term.

**636 Reading as Writers (3)** Reading and analysis of imaginative and critical works in a selected area of creative writing with an emphasis on craft.

*Prerequisite:* permission of the department chairperson.

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

**Revised:**

**332 Phonetics and Phonology (3)** Uses a linguistic approach to explore speech sounds as physical entities (phonetics) and as elements in language systems (phonology). Participants will learn the linguistic methods employed to describe, classify, and analyze speech (articulatory phonetics) and "see" speech to better understand its physical properties (acoustics). Participants will also learn to find and describe general speech sound patterns in natural languages and the systematic relationships between the actual sound produced and the abstract cognitive patterns.

*Prerequisite:* ENG 320 or 334.

**Department of Geography**
**Revised:**
**MAJOR IN GEOGRAPHY (BA/BS), 51-57 credits**

*Concentration 2: Travel and tourism, 42 credits*

GEOG	121	Geog of Cultural Environment	3
	261	Intro to Sustainable Tourism	3
	262	Tourism Regions	3
	369	Professional Experience (3-6)	
	or		
	479	Practical Experience (3-6)	3
	491	Sustainable Tourism Develop	3

12 credits from

FCFN	250	Lodging Management (3)	
	or		
	376	Intro Event Management (3)	
	or		
NUTR	363	Admin of Food and Nutr Systems (3)	
GEOG	360	Tours and Meetings Management (3)	
	460	Travel and Tourism Consulting (3)	
MGT	300	Managing Behavior in Org (3)	
	or		
MKG	300	Principles of Marketing (3)	
NREM	371	Outdoor Recreation and Socy (3)	
	or		
	392	Environmental Interpretation (3)	12

6 credits from

GEOG	350	Geog United States and Canada (3)	
	351	Latin American and Caribbean (3)	
	353	Geography of Indiana (3)	
	354	Geography of Asia (3)	
	356	Geog Russia and Its Neighbors (3)	
	357	Geography of Europe (3)	
	480	Distant Areas Field Studies (3)	6

9 credits from

GEOG	120	Economic Geog of Globalization (3)	
	270	Geog of International Conflict (3)	
	320	Immig and Ethnic Geog of US (3)	
	321	Urban Geography (3)	
	323	Tourism and Geography of Food (3)	
	340	Cartograp Visual Spatial Data (3)	
	423	Population Geography (3)	
	470	Political Geography (3)	
	480	Distant Areas Field Studies (3)	
METC	230	Elementary Meteorology (3)	
	331	Global Climatology (3)	
	334	Atmospheric Hazards (3)	9

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 57 crs

Recommended minors for concentration 2 include journalism, public relations, modern languages and classics, food management, hospitality management, natural resources and environmental management, and any business or area studies.

**MINOR IN TRAVEL AND TOURISM, 21 credits**

PREFIX	NO	SHORT TITLE	CREDITS
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GEOG	121	Geog of Cultural Environment	3
	261	Intro to Sustainable Tourism	3
	262	Tourism Regions	3
	360	Tours and Meetings Management	3
	460	Travel and Tourism Consulting	3
	491	Sustainable Tourism Develop	3

3 credits from approved 200-level or above GEOG electives

3  

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21 crs

Not open to geography concentration 2 majors.

## GEOGRAPHY (GEOG)

### Revised:

**261 Introduction to Sustainable Tourism (3)** Examines the history, components, and spatial structure of tourism from an ethical standpoint in regard to environmental, socio-cultural and economic impacts. Introduces principles of sustainable tourism and their application to various types of tourism and geographical contexts.

**491 Sustainable Tourism Development (3)** Discusses how to develop tourism destinations and activities that integrate sustainable economic development, accessibility, and indigenous cultural evolution with minimal impact on environment. Includes site assessment, financial analysis, market forecasting, and impact assessment.

*Prerequisite:* GEOG 261 and 262, or permission of the instructor.

## Department of Modern Languages and Classics

### New:

#### MINOR IN ARABIC, 27 credits

PREFIX	NO	SHORT TITLE	CREDITS
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Required courses, 24 credits

AR	101	Beginning Arabic 1	5
	102	Beginning Arabic 2	5
	201	Intermediate Arabic 1	4
	202	Intermediate Arabic 2	4
	301	Advanced Arabic 1	3
	302	Advanced Arabic 2	3

Electives, 3 credits from

AR	334	Ethnic Cultural Ling Arab (3)	
	335	Arabic Civ and Cultures (3)	
	400	Arabic Study Abroad (3-9)	3
			<hr/>
			27 crs

## ARABIC (AR)

### New:

**205 Language and Culture of the Arab World (3)** Provides an overview of the main aspects of contemporary Arab cultures. Based on scholarly research, textual resources, and media from the Arab World. The goal is to examine the Arab people's cultural background, language varieties, and representative social institutions. Presents a rich educational experience for promoting analytic skills and insights into another culture and its complexities. Taught in English.

**301 Advanced Arabic 1 (3)** Designed for students with credit in AR 202. Further skill development in the idiomatic use of the Arabic language and increased understanding of the Arab culture.

*Prerequisite:* AR 202 or permission of the department chairperson.

**302 Advanced Arabic 2 (3)** Designed for students with credit in AR 301. Enhances skills in fluent idiomatic use of the Arabic language and understanding Arab culture. Includes an introduction to some of the masterpieces of Arab literature in translation.

*Prerequisite:* AR 301 or permission of the department chairperson.

**334 Ethnic, Cultural, and Linguistic Diversity in the Arab World (3)** An advanced survey course in Arab culture and civilization intended for students who have completed AR 202 or the equivalent. The main objective is to offer a first-hand exposure to the linguistic, cultural, and ethnic diversity in the Arab world.

*Prerequisite:* AR 202 or permission of the department chairperson.

**335 Special Topics in Arabic Civilizations and Cultures (3)** Development of the Arab world to the present. The main objective is to analyze the crucial transformations of Middle Eastern societies.

*Prerequisite:* AR 202 or permission of the department chairperson.

A total of 6 credits may be earned in courses with different topics.

**400 Arabic Study Abroad (3-9)** Study of intermediate or advanced Arabic language, linguistics, and culture in a foreign country where Arabic is the native language. May include seminars arranged during travel.

*Prerequisite:* permission of the department chairperson.  
A total of 9 credits may be earned.

## SPANISH (SP)

### New:

**304 Spanish Reading Skills (3)** The primary objectives are to develop and improve student reading skills in Spanish. Students will deepen their understanding of texts and learn how to conduct a critical analysis.

*Prerequisite:* SP 202.

## Department of Philosophy and Religious Studies

### RELIGIOUS STUDIES (RELS)

#### Revised:

**160 Religion in Culture (3)** Religion is everywhere, but what is it and what does it do? This course introduces religion's impact on humans and how humans have shaped religious practices in diverse and sometimes surprising ways.

**380 Religion, Non-Violence and War (3)** Examines religious and secular arguments about non-violence, violence and war, and peacemaking in historical and contemporary contexts. Addresses ethical and political aspects of non-violence and violence in relation to social justice, suffering, and power.

**390 Buddhism (3)** Examines diverse forms of Buddhist teaching and practice, through history, from Asia to America. Topics include sacred texts, historical developments, prominent figures, and relevance today. Counts for minor in Asian Studies.

#### Dropped:

**420 Themes in Religion (3)**

**470 Perspectives in the Study of Religion (3)**

## TEACHERS COLLEGE

### Department of Educational Studies

#### EDUCATION: HIGHER (EDHI)

#### New:

**710 Advanced Research Seminar in Higher Education (3)**  
Prepares doctoral students to understand the most recent published research in the field of Higher Education, to produce and disseminate high-quality research, and to understand the publishing process. Designed to elevate research methodological skills as applied to projects such as the dissertation, referenced journal articles, and book chapters.

*Open only to advanced doctoral students (Adult, Higher, and Community Education Doctoral program and Higher Ed and Community College Leadership program).*

## Department of Special Education

### SPECIAL EDUCATION (SPCE)

#### Revised:

**604 Applied Behavior Analysis for Teachers (3)** Intended to equip teachers serving students with disabilities with the knowledge and skills to systematically alter students' academic, functional, or problem behaviors. Although the emphasis will be on the use of the methodology of applied behavior analysis, other behavioral interventions such as School-Wide Positive Behavior Intervention Supports (SW-PBIS) will be discussed. Teachers learn to apply the tactics and strategies of behavior-change technology to socially significant problems.

*Prerequisite:* SPCE 201 or 600 or permission of the graduate advisor.

Laura Helms, Director  
Executive Director of Academic Services  
Associate Dean, University College