

# BALL STATE UNIVERSITY

## ACADEMIC POSTING

2014-2015

VOLUME XLVI – 1

October 14, 2014

This posting may contain all or part of the following: new, revised, and dropped programs, courses and prefixes. The posting period begins October 15, 2014. 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 26, 2014 is Fall Semester 2015.*

### INTERDEPARTMENTAL PROGRAMS

#### Women's and Gender Studies

##### Revised:

#### MAJOR IN WOMEN'S AND GENDER STUDIES (BA/BS), 36 hours

PREFIX	NO	SHORT TITLE	CR HRS
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WGS	210	Intro Women's & Gender Studies	3
	220	International Women's Issues	3
	410	Feminist Theory	3
	499	Women/Gender Studies Capstone	3

Group 1: WGS electives, 3 hours from

WGS	310	Special Topics in WGS (3)	
	369	Paid Internship (1-6)	
	479	Unpaid Internship (1-6)	
	498	Independent Study (1-3)	3

Group 2: Humanities and fine arts electives,  
3 hours from

AHS	265	Feminist Art History (3)	
CC	302	Women in Antiquity (3)	
COMM	385	Rhet of Marginalized Voices (3)	
ENG	328	Language and Gender (3)	
	490	Literature and Gender (3)	
	494	Queer Lit/Queer Theory (3)	
FL	307	European Women Writers (3)	
HIST	215	Women in American History (3)	
	452	Women Modern European History (3)	
PHIL	306	Contemporary Philosophy (3)	
RELS	206	Sex and the Bible (3)	3

Group 3: Social and biological sciences electives,  
3 hours from

ANTH	341	Anthropology of Gender (3)	
CJC	311	Race, Ethnicity and Gender (3)	
HSC	261	Health, Sex, & Family Life (3)	
	472	Women and Health (3)	

POLS	241	Family Law (3)	
	474	Women and Politics (3)	
PSYS	277	Psychology of Sexual Behavior (3)	
	324	Psychology of Women (3)	
	424	Psychology of Diversity (3)	
SOC	235	Sociology of Gender (3)	
	424	Family (3)	
	434	Sociology of Human Sexuality (3)	
SOCW	330	Human Behav and Social Envr 2 (3)	3

15 additional hours from at least 2 of the groups  
(at least 12 hours must be at the 300-400 level) 15

36 hrs

Students may earn no more than 6 hours of internship credit.  
WGS 499 should be taken at the completion of the program.

Students should refer to individual course descriptions for information about prerequisites.

Other relevant electives may be substituted with the approval of the program director. For advising, contact the Women's and Gender Studies program office, BB 108, 765-285-5451.

#### MINOR IN WOMEN'S AND GENDER STUDIES, 18 hours

PREFIX	NO	SHORT TITLE	CR HRS
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WGS	210	Intro Women's & Gender Studies	3
	499	Women/Gender Studies Capstone	3

12 hours from

AHS	265	Feminist Art History (3)	
ANTH	341	Anthropology of Gender (3)	
CC	302	Women in Antiquity (3)	
CJC	311	Race, Ethnicity and Gender (3)	
COMM	385	Rhet of Marginalized Voices (3)	
ENG	328	Language and Gender (3)	
	490	Literature and Gender (3)	
	494	Queer Lit/Queer Theory (3)	
FL	307	European Women Writers (3)	
HIST	215	Women in American History (3)	
	452	Women Modern European History (3)	
HSC	261	Health, Sex, & Family Life (3)	

	472	Women and Health (3)	
PHIL	306	Contemporary Philosophy (3)	
POLS	241	Family Law (3)	
	474	Women and Politics (3)	
PSYS	277	Psychology of Sexual Behavior (3)	
	324	Psychology of Women (3)	
	424	Psychology of Diversity (3)	
RELS	206	Sex and the Bible (3)	
SOC	235	Sociology of Gender (3)	
	424	Family (3)	
	434	Sociology of Human Sexuality (3)	
SOCW	330	Human Behav and Social Envr 2 (3)	
WGS	220	International Women's Issues (3)	
	310	Special Topics in WGS (3)	
	410	Feminist Theory (3)	
	498	Independent Study (1-3)	
	369	Paid Internship (1-6)	
	or		
	479	Unpaid Internship (1-6)	12
			<hr/>
			18 hrs

Students may earn no more than 6 hours of internship credit. WGS 499 should be taken at the completion of the program.

It is strongly suggested that students balance their programs with at least one elective from the humanities and one elective from the biological and social sciences. Students should refer to individual course descriptions for information about prerequisites.

Other relevant electives may be substituted with the approval of the program director. For advising, contact the Women's and Gender Studies program office, BB 108, 765-285-5451.

## COLLEGE OF APPLIED SCIENCES AND TECHNOLOGY

### Department of Technology

#### Revised:

#### MAJOR IN COMPUTER TECHNOLOGY (BA/BS), 76 hours

The computer technology program transforms students into technology leaders in a sustainable global economy.

This is achieved by presenting students with a strong foundation in the concepts, theories, and practices that serve as the basis for the varying aspects of information technology. This includes the design, implementation, and administration of secured systems and networks. Students then have the opportunity to develop expertise in specialty areas of interest through electives in higher level technology courses.

Since the purpose of information technology is to facilitate the goals and objectives of a business or organization, students are required to complete the Minor in Business Administration. With an understanding of how organizations operate, students will be able to more effectively design systems and networks

that will support the needs of the business or organization.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
Core requirement, 43 hours			
CS	110	Intro Comp Sci & Web Prog	3
	120	Computer Science 1	4
MATH	132	Brief Calculus	3
TCMP	111	Computer Assembly Trblshooting	3
	210	Internetwork Fundamentals	3
	211	System Admin Fundamentals	3
	270	Computer/Industrial Electronic	3
	310	Internetwork Design Admin	3
	311	Infrastructure Services	3
	385	Internship in Computer Tech (1-3)	3
	340	Wireless Networks	3
	465	Information Security	3
	466	Capstone Computer Technology	3
TDPT	390	Training and Devel in Industry	3
Electives, 15 hours from (choose 5)			
TCMP	221	Alt Desktop Operating Systems (3)	
	299X	Special Topics in Computer Tec (3)	
	321	Alt Server Operating Systems (3)	
	330	Internetwork Switching (3)	
	371	Voice over IP Network - VoIP (3)	
	380	Electronic Communications Admin (3)	
	400	Sustainability in Info Tech (3)	
	410	Scalable Internetworking (3)	
	421	Data Storage Disaster Recovery (3)	
	430	Convergent Networks (3)	
	440	Directory Services (3)	
	450	Ent Infrastructure Design (3)	
	499	Prob in Computer Technology (3)	15
Business administration minor, 18 hours			
ISOM	125	Micro Apps for Business	3
	251	Introductory Operations Mgt	3
MGT	300	Managing Behavior in Org	3
MKG	300	Principles of Marketing (3)	
	or		
ISOM	300	Project Management (3)	3
6 hours from (choose 2)			
ACC	201	Principles of Accounting 1 (3)	
CIS	226	Business Systems App Dev (3)	
ISOM	210	Business Information Systems (3)	
	251	Introductory Operations Mgt (3)	
	311	Info & Enter Sys: Analys/Des (3)	
MGT	261	Personnel and Supervision (3)	
MKG	310	Consumer Behavior (3)	
	320	Advertising Management (3)	
	325	Professional Selling (3)	6
			<hr/>
			18 hrs
			<hr/>
			76 hrs

Students with sophomore standing electing MKG 300 must take ECON 116 or 201 for UCC.

**TECHNOLOGY: COMPUTER TECHNOLOGY (TCMP)**

**New:**

**385 Internship in Computer Technology (1-3)** Students will work with practicing professionals in computer technology related businesses on a variety of projects. Paid internships are highly recommended but unpaid are acceptable. Internship applications must be approved before permission is given to enroll in the course.

*Prerequisite:* special permission required.

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

*Open only to computer technology majors.*

**COLLEGE OF ARCHITECTURE AND PLANNING**

**Department of Architecture**

**Revised:**

**MASTER OF ARCHITECTURE, 46-52 hours**

**Admission requirements**

The professional master of architecture degree (MArch) is for students who seek licensure in the profession. The MArch is accredited by the National Architectural Accrediting Board (NAAB).

Applicants to the MArch program must meet the admission requirements of the Ball State University Graduate School and the Department of Architecture. International students must also meet the requirements of the Rinker Center for International Programs. Applicants must hold a baccalaureate degree from an accredited program in architecture or its equivalent (Concentration 1). Applicants with a baccalaureate degree in a field other than architecture, if accepted, are required to complete a set of undergraduate courses in architecture, to be determined individually, prior to beginning the master of architecture courses (Concentration 2).

**Programs of Study**

The Department of Architecture offers two concentrations for completing a master of architecture:

*Concentration 1:* this program of study is for graduates of accredited undergraduate architecture programs or their international equivalents, and requires 46 graduate credits for completion. Students are admitted in the fall semester only.

*Concentration 2 (career change):* this program of study is for students holding a bachelor’s degree in academic field other than architecture, and requires 52 graduate credits for completion. The number of undergraduate preparatory courses

required for successful completion is based upon evaluation of prior academic work.

**Degree requirements for Concentration 1**

All students must complete a minimum of 46 credits, consisting of a set of core seminar and architecture studio courses (28 credits); a minimum of one required integrated building technology course (3 credits); a minimum of one required critical thinking and representation course (3 credits); a minimum of four electives (12 credits); and an immersive away experience outside of the College of Architecture and Planning consisting of a) a professional internship or b) an approved academic or research experience.

*Required courses in the March Concentration 1*

PREFIX	NO	SHORT TITLE	CR	HRS
ARCH	501	Compr Arch Studio	6	
	503	Res Meth in Arch	3	
	520	Professional Practice	3	
	555	Immersive Away Experience	0	
	600	Architecture Workshop	3	
	601	Architecture Topics Studio	6	
	602	Final Arch Proj Studio	6	
	603	Final Proj Prep	1	
				28 hrs

Integrated building technology courses, 3 hours from

ARCH	632	High Performance Buildings (3)		
	633	Adv Tech for Grn Bldng (3)		
	634	Advanced Fabrication Seminar (3)		
	635	Adv Build Info Modlng (3)	3	

Critical thinking and representation courses, 3 hours from

ARCH	640	History, Theory, and Criticism (3)		
	641	Human and Cultural Factors (3)		
	642	Architectural Theory (3)		
	644	Theories of Sustainability (3)	3	

Electives, 12 hours from

A minimum of four elective graduate courses are required; may include ARCH 590 (Independent Study) and ARCH 598 (Special Studies in Architecture) and any graduate course at Ball State University approved by the graduate program director.

12

Total degree Concentration 1

46 hrs

*Degree Recap for Concentration 1*

Core requirements (28 credits)  
 Integrated building technology (3 credits)  
 Critical thinking and representation (3 credits)  
 Electives (12 credits)  
 Immersive away experience (0 credits)

Total required graduate credit for the March Concentration 1

46 hrs

**Degree requirements for Concentration 2**

Students are admitted as graduate students on a conditional basis. They must complete a number of undergraduate preparatory courses (maximum 52 credits) listed below. The number of undergraduate preparatory courses required for successful completion is based upon evaluation of prior academic work. Upon completion, all students must complete a minimum of 52 credits, consisting of a set of core seminar and architecture studio courses (34 credits); a minimum of one required integrated building technology course (3 credits); a minimum of one required critical thinking and representation course (3 credits); a minimum of four electives (12 credits); and an immersive away experience outside of the College of Architecture and Planning consisting of a) a professional internship or b) an approved academic or research experience.

Undergraduate preparatory courses, 52 hours maximum

PREFIX	NO	SHORT TITLE	CR HRS
ARCH	103	Architectural Design Studio	6
	163	Arch Comm Media	4
	203	Arch Design Studio	4
	214	Arch Build Tech 1	3
	218	Structural Systems 1	3
	229	History of Architecture 1	3
	263	Digital Design	3
	273	Environmental Systems 1	3
	304	Architectural Design Studio	5
	314	Arch Build Tech 2	3
	318	Structural Systems 2	3
	329	History of Architecture 2	3
	352	Intro Soc/Cult Iss of Design	3
	373	Environmental Systems 2	3
	418	Structural Systems 3	3
			<hr/>
			52 hrs

*Required courses in the March Concentration 2*

ARCH	500	Architectural Design Studio	6
	501	Compr Arch Studio	6
	503	Res Meth in Arch	3
	520	Professional Practice	3
	555	Immersive Away Experience	0
	600	Architecture Workshop	3
	601	Architecture Topics Studio	6
	602	Final Arch Proj Studio	6
	603	Final Proj Prep	1
			<hr/>
			34 hrs

Integrated building technology courses, 3 hours from

ARCH	632	High Performance Buildings (3)	
	633	Adv Tech for Grn Bldng (3)	
	634	Advanced Fabrication Seminar (3)	
	635	Adv Build Info Modlng (3)	3

Critical thinking and representation courses, 3 hours from

ARCH	640	History, Theory, and Criticism (3)	
	641	Human and Cultural Factors (3)	

642	Architectural Theory (3)	
644	Theories of Sustainability (3)	3

Electives, 12 hours from

A minimum of four elective graduate courses are required; may include ARCH 590 (Independent Study) and ARCH 598 (Special Studies in Architecture) and any graduate course at Ball State University approved by the graduate program director.

Total degree Concentration 2	<hr/>
	52 hrs

*Degree Recap for Concentration 2*

Undergraduate preparatory (52 credits maximum)	
Core requirements (34 credits)	
Integrated building technology (3 credits)	
Critical thinking and representation (3 credits)	
Electives (12 credits)	12
Immersive away experience (0 credits)	

Total required graduate credit for the March Concentration 2	<hr/>
	52 hrs

**Pending ICHE approval**

**MASTER OF SCIENCE IN ARCHITECTURE, 30 hours**

PREFIX	NO	SHORT TITLE	CR HRS
		Core area	9
		Optional area	9
		Thesis or creative project	6
		Electives	6
			<hr/>
			30 hrs

The Master of Science in Architecture offers students from diverse geographical, educational, and professional backgrounds a highly customizable platform from which to explore innovation with multiple applications to advanced design. This flexible curriculum offers students opportunities to engage the wide range of course offerings within the university and develop interdisciplinary, entrepreneurial, and immersive design and research projects. Research and collaboration with industry partners and a hands-on perspective are key philosophies.

The core requirement may be waived in response to the student's education and research interests, and a plan of study will be tailored to her/his specific needs. Credit transfers will be reviewed individually, and the degree may be pursued in tandem with one or more of the university's certificate programs. The minimum degree requirement is 30 hours of graduate credit, and students are required to complete a 6-hour thesis or creative project.

**ARCHITECTURE (ARCH)**

**Dropped:**

**403 Architectural Design Studio (6)**

**New:**

**500 Architectural Design Studio (6)** A capstone project that continues a rigorous emphasis on all aspects of sustainability. This in-depth design study requires synthesis of previous course work.

*Prerequisite:* graduate standing or permission of the program director.

**MILLER COLLEGE OF BUSINESS**

**Department of Information Systems and Operations Management**

**Revised:**

**MAJOR IN COMPUTER INFORMATION SYSTEMS (BA/BS), 66 hours**

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
Miller College of Business core, 42 hours			
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	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
			42 hrs
Information systems core, 21 hours			
CIS	226	Business Systems App Dev	3
	317	Computer Networks for Business	3
	410	Information Systems Security	3
	412	Business Proc Analy & Des	3
	413	Database Management Systems	3
	490	Information Systems Integ Proj	3
ISOM	300	Project Management	3
			21 hrs
Electives (choose one course for 3 credit hours)			
ISOM	369	Industry Internship (3)	
CIS	421	Network & Security (3)	
	422	Health Care Information Systems (3)	
	450	E-Commerce Design/Applications (3)	3
			66 hrs

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 in MATH 132, 161, 162, 165, or 166. MATH 132 simultaneously substitutes for the University Core Curriculum math requirement. Credit in ISOM 125 or its equivalent. The prerequisite for ISOM 210 is ISOM 125.

**Suspended:**

**TEACHING MAJOR IN BUSINESS EDUCATION (BA/BS), 58 hours**

**COMPUTER INFORMATION SYSTEMS (CIS)**

**Revised:**

**226 (ISOM 226) Business Systems Application**

**Development (3)** Apply information technology to business operations and procedures by developing business software solutions. With an emphasis on hands-on exercises, students learn various business software development methodologies, such as abstraction, process flow, variable assignment, graceful error handling, and documentation.

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

**317 (ISOM 317) Computer Networks for Business (3)**

Concepts and problems of transmitting, communicating, and managing business data needs through telecommunication and computer networks. Topics include: evaluation of information services in organizations, designing and budgeting of computer network to improve information services, and information technology solutions for regulation compliance.

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

**410 (ISOM 410) Information Systems Security (3)**

Concepts and methods of planning, designing, implementing, managing, and auditing security for the typical information services. Topics include: applicable law and regulations, information policy, operating systems protection mechanisms, intrusion detection systems, formal models of security, cryptography, network and distributed systems security, denial of service attack strategies and defense, worms, viruses, and Internet secure applications.

*Prerequisite:* CIS 317 or permission of the department chairperson.

**412 (ISOM 412) Business Process Analysis and Design (3)**

Various systems analysis and design concepts and techniques, including the key steps in the planning, design, development, management, and evaluation of information services in organizations. Emphasizes the consideration of practical applications within the business environment, information policy, and applicable laws and regulations.

*Prerequisite:* CIS 226 (waived for CS with IS minor), and ISOM 300.

**413 (ISOM 413) Database Management Systems (3)**

Concepts of database management systems, data models, the entity-relationship (ER) diagrams, design and implementation of database application, database administration, structured query language (SQL), distributed databases and data warehousing. Course provides a significant hands-on experience using a DBMS, such as MS SQL server, and data modeling tools to plan, design, and develop a database application that supports business operations.

*Prerequisite:* CIS 226 or permission of the department chairperson.

**421 (ISOM 421) Network and Security Management (3)**

Presents a comprehensive overview of telecommunication network management, computer and network security. Network management using current operating systems, enterprise security framework, network defense, risk assessment, OS hardening, security tools to prevent break-ins, computer forensics, disaster recovery, security practices, and policies. Provides a significant hands-on experience in penetration testing and defenses.

*Prerequisite:* CIS 317, 410, or permission of the department chairperson.

**422 (ISOM 422) Health Care Information Systems (3)**

Provides an overview of current developments, issues and challenges in the emerging field of health informatics—the application of information and communication technology for the acquisition, storage, management and use of information in health care, the study of human-computer interaction, human factors, and the consideration of social and organizational factors related to successful technology deployment.

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

**450 (ISOM 450) E-Commerce Design and Applications (3)**

Presents a comprehensive overview of electronic commerce design and applications. Topics include e-business models, infrastructure, security, payment systems, development methodologies, applicable law and regulations, and strategies.

*Prerequisite:* CIS 226 or permission of the department chairperson.

**490 (ISOM 490) Information Systems Integration Project (3)**

Integrates the supporting principles of information technology, computer systems management, and business operations into the completion of a capstone project. Requires students to plan, develop, and present a project that serves the information needs of a business. In addition to class meeting time, information systems students will be required to meet at arranged times to complete a capstone project.

*Prerequisite:* ISOM 310, CIS 317, CIS 412, and senior standing.

## INFORMATION SYSTEMS AND OPERATIONS MANAGEMENT (ISOM)

**Dropped:****135 Business Information Systems (3)****226 Business Systems Application Development (3)****317 Computer Networks for Business (3)****410 Information Systems Security (3)****412 Business Process Analysis and Design (3)****413 Database Management Systems (3)****421 Network and Security Management (3)****422 Health Care Information Systems (3)****450 E-Commerce Design and Applications (3)****490 Information Systems Integration Project (3)****Revised:**

**210 (135) Business Information Systems (3)** Reviews the imperative information services in modern organizations. Details the role of information technologies and computer systems used in the planning, management, and evaluation of these information services. Presents elements of managerial decision making and critical and creative thinking to improve business operations. Applies case studies for individuals and teams to solve business problems.

*Prerequisite:* ISOM 125 or equivalent.

**228 Advanced Microcomputer Applications for Business (3)**

Uses office productivity tools to solve business problems for small- and medium-sized organizations. Emphasis on using complex formulas and advanced functionality to solve problems and to manipulate, analyze, and visualize data.

*Prerequisite:* ISOM 125 or equivalent or permission of the department chairperson.

**300 Project Management (3)** Students learn the foundation of project management which includes key project management knowledge areas such as, project scope, time, cost, risk, human resources, procurement, and quality. Students are also introduced to project management software and the benefits of using software in typical planning and control activities. Emphasis is placed on stakeholder communication and leadership strategies as an essential component of project management success.

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

**497 Independent Study (1-6)** Supervised study of some phase of information systems or logistics and supply chain management.

*Prerequisite:* senior standing; permission of the department chairperson.

A total of 9 hours of credit may be earned in ISOM 369, 497, and 498.

A total of 9 hours of credit may be earned, but no more than 6 in any one semester or term.

**498 Seminar in Information Systems or Logistics and**

**Supply Chain Management (1-3)** Explores current problems, theory, research, and trends in information systems or logistics and supply chain management.

*Prerequisite:* senior standing; permission of the department chairperson.

A total of 9 hours of credit may be earned in ISOM 369, 497, and 498.

A total of 9 hours of credit may be earned, but no more than 3 in any one semester or term.

## Department of Marketing

### MARKETING (MKG)

#### Revised:

**476 Executing Social Media Marketing (3)** Building upon the skills learned in MKG 375, students will have the opportunity to work in teams with real world clients to develop and execute social media marketing plans to meet client objectives. A key component of the course will be developing and measuring appropriate metrics of success.

*Prerequisite:* MKG 375.

**480 Marketing Strategy (3)** Marketing strategy as a plan for allocating an organization's resources across the elements of the marketing mix to gain a distinctive competitive advantage and to achieve organizational objectives. Strategies of existing corporations may be profiled or a case approach may be used in this project-oriented course.

*Prerequisite:* MKG 300, 310, 325, 350 and one additional MKG elective; senior standing or permission of the department chairperson.

## COLLEGE OF COMMUNICATION, INFORMATION, AND MEDIA

### Center for Information and Communication Sciences

#### INFORMATION AND COMMUNICATION SCIENCES (ICS)

#### Revised:

**698 Problems in Information Systems (3)** Seminar on topics from various areas of information systems. Content will vary each offering and includes projects involving independent research and written and oral presentations. (May serve as capstone course.)

*Prerequisite:* permission of the director.

A total of 9 hours of credit may be earned, but no more than 3 in any one semester or term.

## Department of Journalism

### NEWS (NEWS)

#### Dropped:

#### 315 News Editing (2)

#### Revised:

**215 (315) News Editing (2)** Theory and practice in editing across media platforms with emphasis on the role of editors, content planning and direction; story development and organization; presentation techniques to maximize audience impact; and proper language usage.

*Prerequisite:* successful completion of a departmental language usage proficiency exam; JOUR 101 and NEWS 105.

*Open only to* students majoring in journalism or telecommunications.

## Department of Telecommunications

### NEWS (NEWS)

#### Dropped:

#### 315 News Editing (2)

#### Revised:

**215 (315) News Editing (2)** Theory and practice in editing across media platforms with emphasis on the role of editors, content planning and direction; story development and organization; presentation techniques to maximize audience impact; and proper language usage.

*Prerequisite:* successful completion of a departmental language usage proficiency exam; JOUR 101 and NEWS 105.

*Open only to* students majoring in journalism or telecommunications.

### TELECOMMUNICATIONS (TCOM)

#### Correction (2014-15 Undergraduate Catalog):

#### 288 Critical Issues in the News (1)

##### Revise credit hours

**From:** 1-3

**To:** 1

#### 381 Sports and Electronic Media (3)

##### Revise credit hours

**From:** 3-6

**To:** 3

#### 391 Internship (1-6)

**Revise statement:** *Open only to* approved telecommunications majors and minors.

# COLLEGE OF FINE ARTS

## Department of Art

### Revised:

#### MAJOR IN ART (BFA), 85 hours

AHS 101 satisfies the fine arts distribution requirement in the University Core Curriculum.

PREFIX	NO	SHORT TITLE	CR HRS
Core requirements, 31 hours			
ADS	101	Foundations 1	3
	102	Foundations 2	3
AFA	101	Drawing 1	3
	202	Figure Drawing	3
	211	Painting 1	3
AHS	101	History of Art Survey 1	3
	102	History of Art Survey 2	3
ART	100	Art Orientation	1
	200	Introduction to Computer Art	3

6 hours from 200- and 300-level AHS courses 6

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31 hrs

Complete one professional concentration:  
*Animation, 54 hours*

ART	210	Introduction to 3D Animation	3
	211	Traditional Animation	3
	310	Drawing for Animation	3
	311	3D Modeling and Rendering	3
	312	3D Animation	3
	313	Animation Specialty	3
	315	Character Design	3
	316	Storyboarding	3
	411	Pre-Production	3
	414	Animation Production	3
	490	Senior Project in Animation	3

3 hours from

ACR	211	Ceramics 1 (3)	
	221	Introduction to Metals (3)	
	231	Introduction to Glass (3)	
AFA	221	Sculpture 1 (3)	3

6 hours from

AFA	303	Intermediate Figure Drawing (3)	
	304	Experimental Figure Drawing (3)	
	312	Figure Painting (3)	
	315	Narrative Painting (3)	6

12 hours from art studio electives 12

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85 hrs

## ART (ART)

### Dropped:

#### 212 Drawing for Animation (3)

### New:

**210 Introduction to 3D Animation (3)** Provides an introduction to techniques of three dimensional computer graphics, as well as the fundamental concepts and philosophy of animation. The techniques include 3D modeling, digital lighting and shading, and basic animation. Autodesk Maya is the primary software to complete the course assignments.

*Prerequisite:* ADS 102 or CAP 102; AFA 202.

*Parallel:* ART 211.

*Open only to animation majors.*

### Revised:

**310 (212) Drawing for Animation (3)** Introduces volume and 2-axis perceptions facilitated by timeline creation and playback. Focuses on life drawing, animation, and body mechanics.

*Prerequisite:* ART 211.

*Parallel:* ART 311.

*Open only to animation majors.*

**311 3D Modeling, Texturing, Lighting, and Rendering (3)** Intermediate study of 3D computer animation. Topics will include modeling, animation, surfaces, lighting, and rendering.

*Prerequisite:* ART 210.

*Parallel:* ART 310.

*Open only to animation majors.*

#### 312 3D Animation, Rigging, and Simulation (3)

Intermediate study of 3D computer animation. Topics will include animation, rigging, and simulation.

*Prerequisite:* ART 311.

*Parallel:* ART 315.

*Open only to animation majors.*

**313 Animation Specialty (3)** Advanced study of 3D computer animation. Students will begin to focus on a specialty in the commercial field of animation. Topics may include modeling, texturing, rendering, character animation, rigging, and simulation.

*Prerequisite:* ART 312.

*Parallel:* ART 316.

*Open only to animation majors.*

**414 Animation Production (3)** Design and production of a collaborative animation project. Projects will be produced in collaboration with an interdisciplinary group of artists, animators, or composers.

*Prerequisite:* ART 313.

*Parallel:* ART 411.

*Open only to animation majors.*



# School of Music

## Revised:

### ARTIST DIPLOMA, 24 hours

The artist diploma is a highly selective non-degree graduate program for the specialized training of the gifted and accomplished performer. The program focuses on the practical aspects of music performance: private instruction, solo performance, participation in musical ensembles, chamber music, musicianship skills, and may include nonperformance supportive music courses.

#### Admission requirements

To be accepted into the artist's diploma program, the applicant must have earned the bachelor's degree from an accredited institution and must have an overall grade-point average (GPA) of 2.75 (or 3.0 in the last two years of study).

A live audition on the Ball State campus is preferred for admission into the program; however, a recent (within one year) live, un-edited DVD recording of a full recital (such as a degree recital or professional recital) may be submitted for admission evaluation. The DVD should be a complete recording of an event with the printed program attached. (In the case of an audition on campus, an accompanist fee may be applicable.)

#### Degree requirements

<i>PREFIX NO SHORT TITLE</i>	<i>CR HRS</i>
Applied Study (MUSP 600, 610)	8-12
Career/Performance Seminar MUSP 595 (2 credit hours) and Independent Study in Music Performance MUSP 699 (2 credit hours)	4
Electives Courses selected may include: additional applied study, ensemble participation, chamber music, special topics, conducting, diction and literature, pedagogy, improvisation, courses in music technology, courses from music theory or music history and musicology, etc.	8-12
	<hr/> 24 hrs

#### Recital requirement

Two faculty-adjudicated solo recitals. For voice, the performance of a major opera role or a major performance with orchestra (40-50 minutes of singing) may be substituted for one recital, with permission of the voice faculty. The graduate coordinator and performance area coordinator will appoint a faculty jury to evaluate each performance.

#### Additional requirements

- Diploma students will be in residence for a minimum of two semesters (residence is defined as a minimum of 8 hours/semester [may include summer].)
- All requirements for the diploma must be met within a five-year period.
- Students wishing to take graduate-level courses in theory (MUST) or music history (MUHI) must establish eligibility by passing the theory/history placement tests or successfully completing the review course(s).
- No course with a grade below 2.0 can be counted toward the diploma. Diploma students must maintain an overall GPA of 3.0. Students falling below that average will be placed on academic probation and will have one semester in which to bring the GPA up to a 3.0.
- Undergraduate courses may be taken during the course of the diploma program, but will not count toward the required 24 hours of graduate credit.
- No transfer credits from other institutions are allowed.

### MASTER OF MUSIC, 30-32 hours

The master of music (MM) degree requires that at least one-third of the credits be completed in the major field of study. Majors offered are music performance, conducting, woodwinds, piano chamber music/accompanying, piano performance and pedagogy, music history and musicology, music education, music theory, and music composition. The program offers in-depth study for students highly gifted in some facet of music performance, music composition, or research. It is designed for students certified to teach as well as for those who do not have and do not seek such certification. A faculty-approved creative project, recital, or thesis is required of all students. All master of music students are required to pass a comprehensive examination that is administered near the end of the degree program.

#### Admission requirements

Applicants must meet the admission requirements of the Graduate School and must also be approved by School of Music faculty. Applicants are asked to present an on-campus audition, or when a personal audition is not possible, to send an un-edited DVD of a full, live recital with attached program. Conducting applicants must audition in person. (There may be an accompanist fee, as needed.) Applicants for areas other than performance are asked to send samples of research papers, class projects, and compositions as appropriate. Before enrolling in required course work in music theory and history, applicants must achieve acceptable scores on the graduate placement tests. Students not achieving acceptable scores must complete a review course in theory and/or history.

#### Degree requirements

<i>PREFIX NO SHORT TITLE</i>	<i>CR HRS</i>
Major area of study in music including credit for a thesis, research paper, or creative project	22-32
Minor, electives in music, and electives	0-8
	<hr/> 30-32 hrs

**MASTER OF ARTS IN MUSIC, 30 hours**

The requirements for the master of arts (MA) in music include a core of studies in music performance, music history and musicology, music theory, and music education. The degree is designed to meet the needs of students interested in securing broad coverage of the discipline at the graduate level. The elective hours may be used for additional courses in music, for professionalization courses (for certified teachers), or for a minor outside the School of Music. The degree includes a required research component that may take the form of a research methodology course, a research project or thesis, or a creative project recital. All master of arts in music students are required to pass a comprehensive examination that is administered near the end of the degree program.

**Admission requirements**

Applicants must meet the admission requirements of the Graduate School and ordinarily will have majored or minored in music at the undergraduate level. Before enrolling in required course work in music theory and history, applicants must achieve acceptable scores on the graduate placement tests. Students not achieving acceptable scores must complete a review course in theory and/or history.

**Degree requirements**

<i>PREFIX NO SHORT TITLE</i>	<i>CR HRS</i>
Major area of study in music, including credit for a thesis, research paper, or creative project	22-27
Minors, electives in music, and electives	3-8
	<hr/>
	30 hrs

**DOCTOR OF ARTS IN MUSIC, 90 hours**

The doctor of arts in music (DA) degree is designed to prepare superior musicians for careers in college teaching. The philosophy of the program is to integrate depth of preparation in one of the traditional disciplines of music with general studies in the remaining fields of music and several supervised teaching experiences at the college level. Graduates will be effective and productive artists and scholars qualified to teach specific music disciplines at the college level and to assume the more diverse responsibilities characteristic of faculty positions at small colleges and universities. The program requires a total of 90 hours of graduate credit beyond the bachelor's degree.

The School of Music core includes foundational course work in music education, music theory, and music history, such as studies in the history and philosophy of music education, principles of music theory, and the history of American music.

The area of primary emphasis may be in music performance, conducting, piano chamber music/accompanying, music theory and composition, or music education. The area of secondary emphasis may be in music performance, piano chamber music/accompanying, conducting, music theory and composition, music history and

musicology, music education, or outside the School of Music in a subject that relates to the primary field of study.

The area of college teaching and learning includes a college teaching internship and an externship, and courses in such subjects as the role of music in college education, teaching music for the listener/non major, cognition and learning theory, and foundations of higher education. The dissertation may make an original contribution to knowledge in the primary field, produce innovative teaching materials or methods, or focus on a problem identifiable with college teaching.

**Admission requirements**

Applicants must meet the admission requirements of the Graduate School and must also be approved by School of Music faculty. Performance applicants are asked to present an on-campus audition, or when a personal audition is not possible, send an un-edited DVD from a full, live recital with attached program. Conducting applicants must audition in person. (There may be an accompanist fee, as needed.) If the proposed primary area is in one of the academic disciplines of music, then CDs/DVDs, scores, research projects, course papers, publications, reviews, and the like are required, as appropriate. Music education applicants must have had a minimum of three years of teaching experience. All applicants will be invited to the School of Music for interviews. Recent scores from the Graduate Record Exam (GRE) general test as well as letters of professional reference are also required. Before enrolling in required course work in music theory and history, applicants must achieve acceptable scores on the graduate placement tests. Students not achieving acceptable scores must complete a review course in theory and/or history.

**Degree requirements**

<i>PREFIX NO SHORT TITLE</i>	<i>CR HRS</i>
Area of primary emphasis	24
Area of secondary emphasis	15
Supplementary studies in music	18
College teaching and learning	17
Dissertation	10
Electives	6
	<hr/>
	90 hrs

**MUSIC MEDIA PRODUCTION (MMP)**

**New:**

**492 Special Topics in Music Media Production (2)** Special topics, variable, in music media production and industry. Specific topics to be announced one semester in advance.

*Prerequisite:* permission of the director of MMP.

A total of 8 hours of credit may be earned, but no more than 2 in any one semester or term.

*Open only to MMP and music technology majors.*

**494 Internship (1-3)** Preparation for, completion of, and documentation of an internship related to music production or

the music industry. Students should consult with the MMP program director about arranging and preparing for the internship in the semester prior to the internship.

*Prerequisite:* permission of the director of MMP.

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

*Open only to* MMP and music technology majors.

## MUSIC THEORY AND COMPOSITION (MUST)

### Correction (2014-15 Graduate Catalog):

#### 626 Electronic Music Studio 2 (2-6)

**Revise statement:** A total of 12 hours of credit may be earned, but no more than 6 in any one semester or term.

#### 729 Composition (3)

**Revise statement:** A total of 18 hours of credit may be earned, but no more than 3 in any one semester or term.

## Honors College

### HONORS (HONR)

#### Revised:

**299X Inquiries in Special Topics (0-6)** Exploration of special topics relevant to Honors learning. Titles will be announced before each semester. May be repeated for different topics.

*Prerequisite:* permission of the dean of the Honors College.

A total of 99 hours of credit may be earned, but no more than 6 in any one semester or term.

*Open only to* Honors College students.

## COLLEGE OF SCIENCES AND HUMANITIES

### Interdepartmental Programs

#### SCIENCE

#### Revised:

#### TEACHING MAJOR IN EARTH/SPACE SCIENCE (BA/BS), 51 hours

PREFIX	NO	SHORT TITLE	CR HRS
ASTR	120	The Sun and Stars	3
	124	The Solar System	3
BIO	112	Principles of Biology 2	4
CHEM	111	General Chemistry 1	4

	112	General Chemistry 2	4
GEOG	230	Elementary Meteorology	3
GEOL	101	Planet Earth Geol Environment	3
	105	Lab in Physical Geology	1
	201	Earth, Life, and Time	3
	206	Oceans and Nations	3
	207	Environ Geology Geochem Cycles	3
	220	Earth Materials	3
	240	Geomorphology	3
	290	Computer Applic Geosciences	1
	350	Physical Hydrology	3
NREM	221	Soil Resources	3
PHYC	110	General Physics 1	4

51 hrs

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

PREFIX	NO	SHORT TITLE	CR HRS
<i>Professional education sequence, 39 hours</i>			
EDFO	420	Soc, Hist, Phil Found of Ed	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
	460	Student Tchng: Sec Schl (6-7)	7
	465	Elective Student Teaching (3 or 5)	5
SCI	150	Bsc Con in Science Education	3
	295	Intro to the Teaching of Sci	3
	396	Using Sci Methods & Mats	3

39 hrs

See Professional Education Assessment/Decision Points, p. 382, for additional information.

## Department of Anthropology

### ANTHROPOLOGY (ANTH)

#### Correction (2014-15 Graduate Catalog):

#### 530 Topics in Native North American Cultures (3)

**Add statement:** A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

#### 540 Anthropological Field Trip (3-6)

**Revise credit hours**

**From:** 6

**To:** 3-6

#### 560 Topics in Ethnology (3)

**Add statement:** A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

#### 570 Topics in Regional Ethnography (3)

**Add statement:** A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

### 577 Topics in Museum Operations (3)

**Add statement:** A total of 6 hours of credit may be earned, but no more than 3 in any one semester or term.

## Department of Biology

### Dropped:

### MINOR IN BIOLOGICAL SCIENCES FOR STUDENTS MAJORING IN NURSING, 17-19 hours

## Department of Computer Science

### COMPUTER SCIENCE (CS)

### New:

**101 Introduction to Programming (1)** Introduction to programming. Emphasis on developing problem-solving skills and programming techniques. Topics include control structures, procedural abstraction, and introductory linear data structures.

A total of 3 hours of credit may be earned, but no more than 1 in any one semester or term.

**321 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.

*Prerequisite:* CS 120 and MATH 221 or ECON 221.

**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 and statistics courses before enrolling.

## Department of English

### Revised:

### MAJOR IN ENGLISH (BA), 36 hours

*English studies, 36 hours*

This program is designed to provide a foundation in the full range of subjects within English studies: literature, rhetoric, writing, linguistics, and creative writing. It is designed for students seeking a broad liberal education but not necessarily planning to pursue graduate studies in English. Four semesters (or the equivalent) of a modern or classical language at the college level are required.

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
ENG	210	Intro to Rhet & Writing	3
	220	Language and Society	3
	230	Reading & Writing About Lit	3
	285	Intro to Creative Writing	3
	444	Senior Seminar	3
3 hours from Creative writing course			3
3 hours from Linguistics course			3
3 hours from Literature course			3
3 hours from Rhetoric/Writing course			3
9 hours of English electives from courses numbered 300 or above			9
			36 hrs
Electives may not include WPP 392, 393, or any course specially designed for teacher preparation: ENG 150, 350, 395. May include only 3 hours of ENG 369.			
<i>Creative Writing, 36 hours</i>			
This program is designed to equip students with the writing and creative thinking skills necessary for graduate study and a variety of writing-intensive careers. Courses in fiction, poetry, screenwriting, creative nonfiction, literature, service learning, and literary editing offer students a balanced liberal and professional education. Four semesters (or the equivalent) of a modern or classical language at the college level are required.			
ENG	230	Reading & Writing About Lit	3
	285	Intro to Creative Writing	3
	405	Spec Topics Creative Writing	3
	444	Senior Seminar	3
15 hours from creative writing classes, including at least 6 hours from courses numbered 406 and above.			
ENG	306	Creative Nonfiction Writing (3)	
	307	Fiction Writing (3)	
	308	Poetry Writing (3)	
	310	Screenwriting (3)	
	406	Adv CNf Writing (3)	
	407	Adv Fiction Writing (3)	
	408	Adv Poetry Writing (3)	
	409	CW in the Community (3)	
	410	Adv Screenwriting (3)	
	489	Prac in Lit Editing & Publish (3)	15
3 hours from literature courses numbered 300-399			3
3 hours from literature courses numbered 400-499			3
3 hours from English course numbered 205 or higher, excluding creative writing courses, ENG 206, and any course specially designed for teacher preparation: ENG 150, 350, 395.			3

*Literature, 36 hours*

This program is designed to provide a foundation in the methods of and contexts for literary study, to sharpen students' analytical and communicative skills, and to prepare students for a variety of academic and professional opportunities. Four semesters (or the equivalent) or a modern or classical language at the college level are required.

ENG	230	Reading & Writing About Lit	3
	444	Senior Seminar	3

**Distribution requirements**

3 courses from

British literature (one pre-1800 required)

ENG	260	British Lit 1: Beg to 1780 (3)	
	280	British Lit 2: 1780 to Pres (3)	
	362	Medieval British Literature (3)	
	363	Ren & 17th Cen Brit Lit (3)	
	364	Rest & 18th Cen Brit Lit (3)	
	365	19th Cen Brit Lit (3)	
	366	Brit Lit 1890-1930 (3)	
	367	Contemporary Brit Lit (3)	
or appropriate	ENG 400-level offerings		9

3 courses from American literature (one pre-1900 required)

ENG	240	American Lit 1: Beg to 1860 (3)	
	250	American Lit 2: 1860 to Pres (3)	
	345	Early American Lit (3)	
	346	Studies 19th Cen Amer Lit (3)	
	347	20th Century Amer Lit (3)	
	351	Contemporary American (3)	
or appropriate	ENG 400-level offerings		9

1 course from diverse literature

ENG	490	Literature and Gender (3)	
	491	Lit of African American Trad (3)	
	492	Native American Literature (3)	
	493	American Ethnic Literature (3)	
	494	Queer Lit/Queer Theory (3)	
	498	Post-Colonial Studies (3)	3

1 course at the ENG 400-level

ENG	400	Special Topics in English (3)	
	402	Cultural Studies (3)	
	421	Studies in Literary History (3)	
	422	Studies: Authors (3)	
	423	Studies in Drama (3)	
	424	Genre Studies (3)	
	425	Film Studies (3)	
	464	Shakespeare (3)	
	496	Literary & Critical Theory (3)	
	497	Studies: Lit in Translation (3)	3

Electives

Two elective courses in English numbered 205 and above. May not include ENG 206 or any course specially designed for teacher preparation: ENG 150, 350, 395. May include 3 hours of ENG 369. 6

*Rhetoric and Writing, 36 hours*

This program introduces students to rhetoric as the theory and practice of discourse; it is especially relevant for students planning further academic or professional studies. Four semesters (or the equivalent) of a modern or classical language at the college level are required.

ENG	210	Intro to Rhet & Writing	3
	213	Intro to Digital Literacies	3
	231	Professional Writing	3
	303	History of Rhetoric	3
	335	Writ & Read Public Discourse	3
	435	Issues in Rhet & Writing	3
	444	Senior Seminar	3

9 directed elective hours from the following courses (no more than 3 hours from ENG 369):

COMM	310	Communication and Democracy (3)	
	320	Persuasion (3)	
	322	Comm and Popular Culture (3)	
	385	Rhet of Marginalized Voices (3)	
	412	Rhetorical Theory & Criticism (3)	
	420	Classical Rhetorical Theory (3)	
ENG	306	Creative Nonfiction Writing (3)	
	329	Editing and Style (3)	
	369	Professional Experience (3)	
	431	Rhet Writ & Emerging Media (3)	9

Electives

Two elective courses in English numbered 205 and above. May not include ENG 206, 329, 431, or any course specially designed for teacher preparation: ENG 150, 350, 395. 6

**ENGLISH (ENG)****Dropped:**

**204 Literature for Children (3)**

**302 Developing Elementary English Language Arts with Multicultural Literature (3)**

**304 Teaching Writing in the Elementary Grades (3)**

**311 Language Arts Methods (3)**

**318 Literature for Young Children (3)**

**401 Trends and Issues in Teaching Elementary English Language Arts (3)**

**Department of Mathematical Sciences****New:**

## Pending ICHE approval

### MASTER OF ARTS IN POST-SECONDARY FOUNDATIONAL MATHEMATICS TEACHING, 30 hours

#### Admission requirements

Applicants must meet the regular admission requirements of the Graduate School. Applicants also must meet one of the following criteria: 1) have a current teaching license and at least one year of teaching experience; 2) be currently teaching at a community college; 3) have permission of the department chairperson.

This program is offered on-line only.

#### Degree requirements

PREFIX	NO	SHORT TITLE	CR HRS
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Content knowledge for teaching mathematics, 6 hours

MATH	514	Alg Res Elm Mid Fnd Math Teach	3
	519	Quantitative Reason Teachers	3

Research and pedagogical knowledge for teaching mathematics, 9 hours

MATH	631	Technology Mathematics Teach	3
	693	Teaching Math Prob Solving	3
	694	Research Methods Math Educat	3

Pedagogical knowledge for teaching adults, 6 hours from

EDAC	631	Adult and Community Education (3)	
	634	The Adult as a Learner (3)	
	635	Strategies for Teaching Adults (3)	6

Electives, (as approved by advisor), 9 hours from

MATH	517	Num Concepts and Num Thry Teach (3)	
	518	Rat Num Prop El Mid Fnd Tch (3)	
	542	Geo Meas Ele Mid Fnd Math Tch (3)	
	623	Data Probability Teach (3)	9

30 hrs

### MATHEMATICAL SCIENCES (MATH)

#### Correction (Per Department of Mathematical Sciences):

**471 Real Analysis 1 (4)** Real and complex number systems: ordered sets, least upper bound property, fields, Archimedean property; Basic topology: cardinality, metric spaces, completeness, compactness, connectedness; Numerical sequences and series: convergence tests, upper-lower limits; Continuity: continuous functions, uniform continuity, Intermediate and Extreme Value Theorems; Differentiation: derivative, Mean Value Theorem, l'Hospital's Rule, Taylor's Theorem.

*Prerequisite:* C- or better in MATH 215 and 267; or permission of the department chairperson.

### 518 Rational Numbers and Proportionality for Elementary, Middle School, and Foundational Math Teachers (3)

#### Revise long title

**From:** Rational Numbers and Proportionality for Elementary, Middle School, and Foundational Teachers

**To:** Rational Numbers and Proportionality for Elementary, Middle School, and Foundational Math Teachers

### Department of Physics and Astronomy

#### Revised:

#### MINOR IN APPLIED PHYSICS, 26-28 hours

PREFIX	NO	SHORT TITLE	CR HRS
MATH	165	Calculus 1	4
	166	Calculus 2	4
PHYC	120	General Physics 1	5
	122	General Physics 2	5
			<hr/>
			18 hrs

Complete one concentration

*Concentration 1: Electronics, 8 hours*

PHYC	354	Electronics 1	4
	356	Electronics 2	4
			<hr/>
			8 hrs

*Concentration 2: Nanoscience, 10 hours*

APHY	310	Intro Nanosci & Tech	3
PHYC	260	Introduction to Modern Physics	4
	466	Condensed Matter Physics	3
			<hr/>
			10 hrs

26-28 hrs

#### MINOR IN ASTROPHYSICS, 26 hours

PREFIX	NO	SHORT TITLE	CR HRS
ASTR	330	Astronomy and Astrophysics 1	4
	332	Astronomy and Astrophysics 2	4
MATH	165	Calculus 1	4
	166	Calculus 2	4
PHYC	120	General Physics 1	5
	122	General Physics 2	5
			<hr/>
			26 hrs

#### MINOR IN PHYSICS, 33 hours

PREFIX	NO	SHORT TITLE	CR HRS
MATH	165	Calculus 1	4
	166	Calculus 2	4
	267	Calculus 3	4

PHYC	120	General Physics 1	5
	122	General Physics 2	5
	260	Introduction to Modern Physics	4
	262	Modern Physics Laboratory	1
	330	Mechanics	3
	450	Electricity and Magnetism 1	3
			33 hrs

## ASTRONOMY (ASTR)

### New:

**126 Black Holes, Dark Matter, and the Universe (3)** A journey into the life and death of stars, their remnants, such as black holes, the formation of galaxies, and the large scale structure of the universe, and the exploration of dark matter and cosmology.

## PHYSICS (PHYC)

### Revised:

**120 General Physics 1 (5)** First course in calculus-based physics for students in pre-engineering, the physical sciences, or mathematics. Topics include Newtonian mechanics, work and energy, motion, impulse and momentum, elasticity and wave motion, sound, and hydrostatics and hydrodynamics. Core Transfer Library: Physical Sciences (IPS 1753)

*Prerequisite or parallel:* MATH 165.

## TEACHERS COLLEGE

### Department of Educational Leadership

#### Revised:

**DOCTOR OF EDUCATION IN EDUCATIONAL ADMINISTRATION AND SUPERVISION, 90 hours**

#### Remove the following statement:

ID 705 must be taken two consecutive semesters: 2 hours in fall; 1 hour in spring.

### Department of Educational Psychology

#### Revised:

**DOCTOR OF PHILOSOPHY IN EDUCATIONAL PSYCHOLOGY (SCHOOL), 132-138 hours**

The PhD program consists of a minimum of 132-138 hours of graduate credit, 48 of which must be completed at Ball State University. The candidate must complete a major in school psychology of at least 40 hours and either a single cognate of

24 hours or two cognates of 15 hours each. As required by the Commission on Accreditation of the American Psychological Association, all students must complete a professional psychology core including courses in the biological aspects of behavior, the cognitive and affective aspects of behavior, and the social aspects of behavior. Course work in individual differences, human development, dysfunctional behavior or psychopathology, cultural and individual diversity, and professional standards and ethics also are required. Theories and methods of assessment and diagnosis, effective consultation and supervision, and evaluating the efficacy of interventions are required course work. In addition, candidates must complete course work in the history and systems of psychology, psychological measurement, research methodology, and techniques of data analysis. All candidates for the degree must submit a research project for presentation or publication in addition to the completion of a dissertation and a doctoral-level internship at sites approved by both the school psychology internship and program directors. Candidates are expected to meet the requirements for Indiana school psychologist licensure as outlined in the section Requirements for School Services Licenses.

Students applying for the program should check with the program for any recent changes dictated by professional organizations or licensure requirements.

#### Admission requirements

Applicants must apply to both the Graduate School and the Department of Educational Psychology. Applicants are screened according to departmental criteria after they have been admitted by the Graduate School. Separate application forms are required by the Graduate School and the department. The department reserves the option of holding personal interviews before candidates are recommended for acceptance into the program. Candidates should contact the program director for additional information.

PREFIX	NO	SHORT TITLE	CR HRS
CPSY	621	Theories/Techniques Couns	3
	631	Personality	3
	678	Counseling Culturally Diverse	3
EDCU	610	Elem Schl Curriculum	3
EDPS	603	Human Development	3
	612	Psychological Consultation	2
	640	Research Methods (3)	
		or	
	643	Research Design (3)	3
	641	Statistical Methods	3
	642	Intermediate Statistics	3
	651	Personality Assessment	3
	652	Intro Neuropsychology	3
	653	Cognitive Assessment	3
	654	Acad Achieve Interv	3
	660	Diagnosis Learning Disorders	3
	685	Intro School Psychology	2

	686	Pre-Practicum Consultation	1
	687	Pre-Prac School Psych (1-4)	1
	688	Practicum Consultation (3-6)	3
	689	Practicum School Psych (1-6)	3
	720	Development Theories/Research	3
	741	Applied Regression Analysis	3
	746	Theory of Measurement	3
	750	Developmental Psychopath	3
	765	Theories of Learning	3
	775	Evidence Based Treatments	3
	776	Issues Professional Psychology	3
	789	Supervision School Psychology (3-6)	3
	791	Doc Intern School Psych (3-6)	3
	792	Doc Intern Professional Psych (3-9)	3
EDRD	610	Teaching of Reading Elem Sch	3
ID	705	Research Colloquium (1-3)	2
PSYS	691	Systems of Psychology	3
SOPS	610	Social Psychology	3
SPCE	609	Intro to App Beh Analy	3
	610	Behavioral Consultation	3

**Additional Requirements**

Completion of a cognate of 24 hours	24 or 30
Completion of at least 10 dissertation hours	10
	<hr/>
	132-138 hrs

**Department of Educational Studies**

**New:**

**Pending ICHE approval**

**CERTIFICATE IN QUALITATIVE RESEARCH IN EDUCATION, 12 hours**

<i>PREFIX</i>	<i>NO</i>	<i>SHORT TITLE</i>	<i>CR HRS</i>
EDST	650	Intro to Qual Res	3
	655	Intro Mixed Methods Research	3
	660	Ethno Res in Ed	3
	670	Adv Theor Qual Rsh	3
			<hr/>
			12 hrs

**EDUCATION: FOUNDATIONS (EDFO)**

**New:**

**700 Critical Educational Policy Studies and Analysis (3)**

Explore and analyze the theoretical foundations of public policies related to education within the state, federal, non-government, not-for-profit, and philanthropic settings. Students will examine the contexts and processes (i.e., formation, adoption, and implementation) within which public educational policies arise and use meta-analysis to suggest alternative interpretations related to stated goals and outcomes.

*Prerequisite:* EDFO 610 or 620 or 621 or 631 or 641 or 651 or 660 or 699.

*Open only to* students enrolled in a doctoral program.

**EDUCATION: STUDIES (EDST)**

**New:**

**670 Advanced Theories of Qualitative Research (3)**

Students will gain a comprehensive understanding of (1) the interpretive traditions, specifically, phenomenology, hermeneutics, symbolic interactionism, dramaturgy and dramatism, narrative research, ethnography, and ethnomethodology; (2) traditions of deep structure, e.g., semiotics and structuralism; (3) the critical traditions, e.g., critical theory, historical materialism, feminism; and (4) traditions of the "post," e.g., postmodernism, poststructuralism, and postcolonialism. Further, students will learn about and experience viewing qualitative data from different theoretical perspectives.

*Prerequisite:* EDST 650 or equivalent or permission of the instructor.

**Department of Elementary Education**

**EDUCATION: ELEMENTARY (EDEL)**

**Revised:**

**302 (ENG 302) Developing Elementary English Language Arts with Multicultural Literature (3)** Focuses on the development of reading, writing, listening, speaking, viewing, and visual representing using multicultural literature. Includes clinical experiences. May be repeated only once.

*Prerequisite:* C or better in EDRD 204.

**304 (ENG 304) Teaching Writing in the Elementary Grades (3)** Focuses on theory, research methods, strategies, and program models for teaching writing in the elementary classroom; includes clinical experiences that develop reading/writing connections. May be repeated only once.

*Prerequisite:* C or better in EDRD 204.

**311 (ENG 311) Language Arts Methods (3)** Modern methods and materials for teaching written and oral expression, language use, spelling, handwriting, and literature in the elementary grades. May be repeated only once.

*Prerequisite:* C or better in EDRD 204.

**411 (ENG 401) Trends and Issues in Teaching Elementary English Language Arts (3)** Requires students to investigate in-depth a problem or issue related to the teaching of elementary English Language Arts reflecting on best practices vs. common practices in relation to the NCTE/IRA Standards for the English Language Arts. May be repeated only once.

*Prerequisite:* C or better in EDRD 204.



## **EDUCATION: READING (EDRD)**

### **Revised:**

**204 (ENG 204) Literature for Children (3)** An overview of children's literature and an intensive study of the various genres for grades K to 6. May be repeated only once. Core Transfer Library: English/Literature (IEL 1220)

*Prerequisite:* completion of decision point 1; C or better grade in EDEL 100 or EDSE 150 or ENG 150 or FCED 150 or SPCE 201 or PEP 161 or TEDU 195 or JOUR 150 or SCI 150 or MATH 150 or MUSE 100 or FL 150 or SS 150.

**318 (ENG 318) Literature for Young Children (3)** An introduction to literature for young children from pre-K to third grade. May be repeated only once.

Laura Helms, Director  
Office of Academic Systems