Accounting Major

Major Requirements - 66 Total Credits

Lower Division Requirements: 20 cr. hrs.
ECON 201 Principles of Microeconomics 3 cr.
ECON 202 Principles of Macroeconomics 3 cr.
ACCT 231 Principles of Accounting I 3 cr.
ACCT 232 Principles of Accounting II 3 cr.
CSIS 215 Information Systems for Business Management 3 cr.
ECON 226 Introduction to Statistics 3 cr.
or MATH 226 Fundamentals of Statistics
CBE 100 First Year Seminar 2 cr.

Required Courses: 40 cr. hrs.
BLAW 265 Business Law I 3 cr.
BLAW 266 Business Law II 3 cr.
MNGT 300 Management and Organizational Behavior 3 cr.
MKTG 310 Principles of Marketing 3 cr.
FINC 345 Managerial Finance 3 cr.
ACCT 321 Intermediate Accounting I 3 cr.
ACCT 322 Intermediate Accounting II 3 cr.
ACCT 356 Managerial Cost Accounting 3 cr.
ACCT 360 Federal Income Tax I 3 cr.
ACCT 361 Federal Income Tax II 3 cr.
ACCT 366 Accounting Systems 3 cr.
ACCT 430 Advanced Accounting 3 cr.
ACCT 461 Auditing 3 cr.
CBE 300 Professional Development 1 cr.

Directed Electives: 6 cr. hrs.
Select from Accounting (not ACCT 201), Management (not MNGT 150, or MNGT 250), Finance (not FINC 210), Marketing (not MKTG 311), Economics (not ECON 100, ECON 150, or ECON 205), Computer Science (not CSIS 105 or CSIS 151), ENGL 251 or ENGL 367.

No 9000 level courses (transfer courses with no UWRF equivalent) will apply as directed electives.

MATH 146 College Algebra is required in the General Education Math section.
Adapted Physical Education K-12 Minor

Adapted Physical Education Minor
23 Total Credits

P ED 243 Motor Learning and Development 3cr.
P ED 300 Adapted Physical Education 3 cr.
P ED 305 Developmental Adapted Physical Education 3 cr.
P ED 344 Teaching Adapted Aquatics 2 cr.
P ED 370 Adapted Physical Education Practicum 3 cr.
P ED 420 Disability and Physical Activity Implications
P ED 421 Teaching Sport to Individuals with Disabilities
SPED 330 The Exceptional Child 3 cr.

Department of Health and Human Performance
Falcon Center
A156, HHP Suite
715-425-3705
www.uwrf.edu/HHP/

Chair- Paul Shirilla, Faculty - Jeff Berkhof, Kristen Csiacsek, Patti Ford, Steve Freeman, Stacy Fumess, Don Glover, Joe O'Kroy, Robert Ritzer, Zach Rourk, Jodee Schaben, Matt Walker, Jake Wissing

The Adapted Physical Education minor is for students seeking teacher certification to meet the needs of students with disabilities within Physical Education. This certification is an "add-on" minor for Physical Education-Comprehensive K-12 Physical Education (teacher certifiable) major as part of the baccalaureate program or as a post-baccalaureate program. It is not a stand-alone minor for students seeking any other major. The undergraduate Health and Physical Education Major must complete the PED 370 Adapted Physical Education Practicum course PRIOR to student teaching.
Agricultural Business Major

Major Requirements - 41-42 Total Credits

**Introductory Courses: 20-21 cr. hrs.**

AGEC 101 Economics and Management in Agriculture 3 cr.
AGEC 102 3 cr.
AGEC 205 Agricultural Business Accounting 3 cr.
AGEC 220 Agribusiness Computations 3 cr.
AGEC 230 Agricultural Economics I 3 cr.
AGEC 240 Cooperatives 2 cr.
or ECON 202 Macroeconomics 3 cr.
AGEC 250 World Food and Populations 3 cr.

**Tool Courses: 18 cr. hrs.**

AGEC 320 Statistical Methods 3 cr.
AGEC 355 Agricultural Markets and Prices 3 cr.
AGEC 360 Farm Management 3 cr.
AGEC 365 Agricultural Finance 3 cr.
Choose 2 from: AGEC 300-399 or AGES 310

**Option Courses: 12 cr. hrs.**

AGEC 430 or AGEC 460 Agri-business Firm Management 3 cr.
Choose 3 from: AGEC 400-499 or AGEC 270 Internship I

**Required Supporting Courses: 3-4 cr. hrs.**

MATH 156 Calculus for Business and Social Science 3 cr.
or MATH 166 Calculus I 4 cr.
or ECON 426 Econometrics and Forecasting 3 cr.

**Directed Electives: 15 cr. hrs.**

15 credits beyond the Foundation Courses in a technical area of agriculture or other related area with consent of department.

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Department of Agricultural Economics
131 Agricultural Science
715-425-3298
www.uwrf.edu/AGEC/

Brenda Boetel-Chair, Albert Boaitey, Sierra Howry, Simon Jette-Nantel, Amber Remble, David Trechter, Jim White

See also:
Agricultural Business Minor
Farm Management Minor
Agricultural Business Minor

Required courses 23-24 cr. hrs.

AGEC 101 Economics and Management in Agriculture 3 cr.
AGEC 205 Agricultural Business Accounting 3 cr.
AGEC 230 Agricultural Economics I 3 cr.
AGEC 350 Agricultural Product Marketing 3 cr.
or AGEC 355 Agricultural Markets and Prices 3 cr.
AGEC 360 Farm Management 3 cr.
AGEC 365 Agricultural Financial Management 3 cr.
AGEC 460 Agribusiness Firm and Strategic Management 3 cr.
Any AGEC 200 level or above or AGES 310
Agricultural Education Major

General Education Requirements
As listed with the following exceptions:

Mathematics (M):
MATH 146 College Algebra 3 cr.

Scientific Investigation (SI):
BIOL 150 General Biology 3 cr.
CHEM 115 Concepts in General Chemistry 4 cr.

Professional Education Requirements
AGED 120 Orientation to Agricultural and Extension Education 1 cr.
AGED 201 Program Delivery in Agricultural, Extension, and Leadership Education 2 cr.
SPED 330 Introduction to Special Education 3 cr.
TED 212 Educational Psychology; Middle and Secondary Education (writing intensive) 5 cr.
TED 252 Foundations of Multicultural Education (d) 3 cr.
TED 422 Secondary School & Content Area Reading 3 cr.
TED 440 Techniques in Agriculture 3 cr.

12 Credits of student/internship teaching:
TED 472 Student Teaching - Initial
or
TED 473 Student Teaching - Additional License
or
TED 474 Student Teaching - COST International or
TED 479 K-12 Internship Teaching

Agricultural Education Major
CAFES Foundation Requirements: 12 cr.
AGEC 101 Economics and Management in Ag 3 cr.
ANSC 111 Introduction to Animal Science 3 cr.
FDSC 110 Science of Food 3 cr.
PLSC 161 Introduction to Plant Science 3 cr.

Major Requirements: 40-43 cr. hrs.
Required Ag Education Courses (16 cr.):
AGED 202 Leadership and Group Dynamics 3 cr.
AGED 275 Early Field Experience 1 cr.
AGED 369 Foundations of Career and Technical Education 3 cr.
AGED 403 Supervision of Work Experience and Youth Organizations 3 cr.
AGED 430 Methods of Teaching Ag Mechanics 3 cr.
AGED 462 Curriculum Design in Career and Technical Education 3 cr.

Required AFNR Content Courses (18 cr.):
AET 112 Woodworking, Electrical and Plumbing Skills 2 cr.
AET 255 Welding and Metal Manufacturing 3 cr.
AFES 223 Ag Biotechnology Lab Techniques 1 cr.
AGEC 205 Ag Business Accounting 3 cr.
AGEC 240 Cooperatives 2 cr.
ESM 300 Environmental Education 3 cr.
FDSC 113 Introduction to Food Science Lab 1 cr.
HORT 169 Introduction to Horticulture 3 cr.

Choose one of the following (2-3 cr.):

Additional Requirements for the Agricultural Education Major

- Academic Progress (At least a 2.75 cumulative GPA including all transfer courses or portfolio)
- Basic Skills Testing
- Content Knowledge Assessment
- 2,000 hours of Agriculture, Food, or Natural Resource Related Occupational Experience
ESM 109 Introduction to Forestry 2 cr.
SOIL 120 Introduction to Soil Science 3 cr.

Choose one of the following (2-4 cr.):
AFES 222 Introduction to Biotechnology 2 cr.
ANSC 257 Genetics 4 cr.
BIOL 350 Genetics 3 cr.
CROP 257 Genetics 3 cr.

Animal Science Elective (2+ Cr.):
Select any ANSC or DASC course of at least 2 credits

**Required Supporting Courses**
All satisfy General Education requirements:

BIOL 150 General Biology 3 cr.

CHEM 115 Concepts in General Chemistry 4 cr.

MATH 146 College Algebra or higher algebra/calculus course 3 cr.
Agricultural Engineering Major

MS=Machinery Systems, PRS=Food and Process Systems, NRES=Natural Resources and Environmental Systems

Major Requirements

Agricultural Engineering: Math and Science
MATH 167 Calculus II - 4
MATH 268 Calculus III - 4
MATH 331 Differential Equations - 3
PHYS 250 Statics - 3
PHYS 252 Dynamics - 3
PHYS 132*, CHEM 112/117** Calc Based Physics II, General Chem II - 5
*MS, **NRES and PRS
SOIL 120*, PLSC 161, ANSC 111, FDSC 110** - 3
*NRES, **PRS, MS any

Agricultural Engineering: General Engineering
GENG 121 Intro to Computer Aided Design (CAD) - 3
GENG 135 Intro to Engineering - 2
GENG 165 Programming for Engineers - 3
GENG 301 Eng Properties of Biological Materials - 3
GENG 316 Engineering Thermodynamics - 3
GENG 336 Engineering Fluid Mechanics - 3
AGEN 484 Senior Design I - 2
AGEN 485 Senior Design II - 2
AGEN 491 FE Examination Preparation - 1
Choose one of two
AET 251 Intro to Meas and Instrumentation - 3
AET 350 Applied Electricity - 3

Agricultural Engineering: Breadth Courses
Choose three of the four
AGEN 240 Structural Analysis and Design - 3
AGEN 330 Watershed Engineering - 3
AGEN 352 Food & Process Engineering I - 3
AGEN 461 Off Road Machinery - 3

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ABET Accreditation

Agricultural Engineering Technology Department
131 Agricultural Science
715-425-3985
www.uwrf.edu/AGEN/
Joseph Shakal-Chair, Matthew Digman, Youngmi Kim, Dean Olson, Joel Peterson
Agricultural Engineering Technology Major

**Major Requirements 55-60 Total Credits**

**Core Courses: 33 cr. hrs.**
- AET 185 Ag Engineering Technology Professional Seminar I 1 cr.
- AGEN 240 Structures 3 cr.
- AET 285 Ag Engineering Technology Professional Seminar II 1 cr.
- AET 350 Applied Electricity 3 cr.
- AGEN 352 Food and Process Engineering 3 cr.
- AGEN 355 Irrigation and Drainage 3 cr.
- AET 385 Ag Engineering Technology Professional Seminar III 1 cr.
- AET 485 Ag Engineering Technology Professional Seminar IV 1 cr.
- GENG 121 Engineering Drawing 3 cr.
- GENG 215 Engineering Project Management 3 cr.
- GENG 345 Machine Design I 3 cr.
- GENG 265 Engineering Graphics 3 cr.
- PHYS 121 Algebra-Based Physics I 5 cr.
  or PHYS 131 Calculus-Based Physics I 5 cr.

Choose one of the following three options:
Agricultural Engineering Technology Minor

Minor Requirements 22 Total Credits

Required Courses: 6 cr. hrs.
AET 150 Introduction to Agricultural Engineering 3
GENG 265 Engineering Graphics 3

Complete one of the following sets of courses: 7-10 cr. hrs.
1 AET 320 Internal Combustion Engines 3
AET 361 Farm Machinery Management 3
AGEN 465 Fluid Power Systems 3
2 AET 350 Applied Electricity 3
AET 251 Introduction to Instrumentation 3
GENG 368 CAD Applications 3
3 AGEN 352 Food and Process Engineering 3
AGEN 455 Advanced Food and Process Engineering 3
GENG 368 CAD Applications 3
4 AGEN 240 Structures 3
AET 333 Site Engineering 3
GENG 215 Engineering Project Management 3
5 AET 355 Irrigation and Drainage (writing intensive) 3
AGEN 365 Waste Management Systems (writing intensive) 3
AET 425 Environmental Engineering Technology 4

Directed electives in Agricultural Engineering Technology or General Engineering: 6-9 cr. hrs.
General Education Requirements
As listed under General Education with the following exceptions:
Social and Behavioral: ESM 105, Introduction to Environmental Studies
Sciences: CHEM 121, General Chemistry or CHEM 120, Introduction to General Chemistry
Mathematics: MATH 146, College Algebra, or equivalent

Foundation Requirements 15 cr. hrs.
AGEC 230 Agricultural Economics I 3 cr.
AET 150 Agricultural and Environmental Engineering Technology 3 cr.
CROP 161 Introduction to Plant Science
or HORT 161 Introduction to Plant Science 3 cr.
ANSC 111 Introduction to Animal Science 3 cr.
SOIL 120 Introduction to Soil Science 3 cr.

Agricultural Studies Major
The Agricultural Studies major enables the student to gain a breadth of knowledge in many areas
within the field of agriculture, food and environmental science. A relatively large course elective
component allows students to be flexible in taking courses that fit their individual needs. For
example, students may elect courses in agricultural communications under this major.

Agricultural Studies
Dean's Office
210 Agricultural Science
715-425-3841
Agricultural Studies is a four-year Bachelor of
Science degree program. Students majoring in
Agricultural Studies will acquire broad knowledge
in the fields of agriculture, food and the
environmental sciences. Students may also
pursue individual special interests through
elective classes. In consultation with an adviser,
students may choose elective courses in areas
such as agronomy, animal science,
communications, marketing, management,
international studies, etc.

Learn more about the Agricultural Studies
Program
College Requirements
General Education Requirements
University Requirements
Animal Science Major

General Education Requirements

As listed with the following exceptions:
- CS (Communication/Speaking and Listening) designator:
  - COMS 101 or COMS 116 is required
- SL (Scientific Investigation) / S (Sciences) designator:
  - BIOL 150 is required
- CHEM 120 or CHEM 121 is required or CHEM 115 may be taken instead for the management emphasis only

Animal Science offers four options

Companion Animal, Equine, Meat Animal, Veterinary Technology

Professional Studies in CAFES (see requirements according to option)

ANSC 100 Introduction to Animal Industries 2 cr.

Companion Animal, Equine: AGEC 101 or AGEC 230
Meat Animal: AGEC 230 Ag Economics 3 cr.
Vet Tech: AGEC 101 Economics & Management in Ag 3 cr.

Equine: PLSC 161 Intro to Plant Science 3 cr.

Companion Animal, Equine and Vet Tech, select one:
Meat Animal, select two:
- FDSC 110 Science of Food 3 cr.
- PLSC 161 Intro to Plant Science 3 cr.
- AET 150 Intro to Ag Engineering 3 cr.
- SOIL 120 Intro to Soils 3 cr.
- AGED 202 Leadership & Group Dynamics 3 cr.

Companion Animal

Companion Animal Option

Major Concentration
- ANSC 200 Animal Science Careers 2 cr.
- ANSC 231 Domestic Animal Nutrition 4 cr.
- ANSC 257 Genetics 4 cr.
- ANSC 260 Animal Physiology (Mgmt emphasis)
  or ANSC 360 Animal Anatomy & Physiology (Science emphasis)
- ANSC 345 Animal Health 2 cr.
- ANSC 448 Physiology of Reproduction 3 cr.
- ANSC 433 Advanced Nutrition 3 cr. (Science emphasis only)
- ANSC 485 Seminar in Animal Science 1 cr.

Companion Animal Option
- ANSC 121 Companion Animals 3 cr.
- ANSC 221 Pets in Society 3 cr.
- ANSC 317 Companion Animal Behavior 3 cr.
- ANSC 321 Companion Animal Management 3 cr.

Management Emphasis

Directed Supporting
- Select one statistics course:
  - ANSC 341 Biometrics
  or AGEC 320, MATH 216, MATH 226, MATH 231, ECON 226
- CHEM 215 Chem Lab Concepts & Tech 1 cr.
- CHEM 230 General Organic Chem 3 cr.

Animal and Food Science Department

247 Agricultural Science
715-425-3704
www.uwrf.edu/ANFS/

Gary Onan-Chair, Casie Bass, Larry Baumann,
Dennis Cooper, Michelle DeBoer, Michelle Farner,
Brian Greco, Young Dal Jang, Sylvia Kehoe,
Steve Kelm, Justin Luther, Melkaye Melka,
Nathan O'Connor, Beth Rausch, Peter Rayne,
Kurt Vogel, Bonnie Walters
AGBI 251 Agricultural Biochemistry 3 cr.
FDSC 235 Agricultural Microbiology 3 cr.

Directed Electives
AGEC 205 Ag Accounting 3 cr.

Select at least two from the following:
AFES 310 Ag Human Resource Mgmt 3 cr.
AGEC 345 Ag Law 3 cr.
AGEC 350 Ag Product Marketing 3 cr.
AGEC 361 Small Agribusiness Mgmt 3 cr.
AGEC 365 Ag Finance 3 cr.
AGEC 368 Professional Selling 3 cr.
AGEC 405 Farm Tax Mgmt 3 cr.
AGEC 430 Entrepreneurial Mgmt 3 cr.

Additional 6 cr.
Student may select any combination of 200 level or higher courses offered by Food Science, Ag Education, Ag Economics, Ag Engineering, Plant & Earth Science, Modern Languages, Psychology, Sociology, Criminology, Teacher Education, or the College of Business and Economics. ANSC 270 Internship credits count here.

Science Emphasis
Directed Supporting
Select one statistics course:
ANSC 341 Biometrics
or AGEC 320, MATH 216, MATH 226, MATH 231, ECON 226

CHEM 231 Organic Chemistry I 3 cr.
CHEM 360 Foundations of Biochemistry 4 cr.
BIOL 324 Microbiology 4 cr.

Required Courses
BIOL 230 General Zoology 3 cr.
CHEM 112 General Chemistry II 4 cr.
CHEM 116 General Chemistry Lab I 1 cr.
CHEM 117 General Chemistry Lab II 1 cr.
CHEM 236 Organic Chemistry Lab I 1 cr.
MATH 147, MATH 149 or MATH 166 3-4 cr.
PHYS 121 or PHYS 131 General Physics 5 cr.

Equine
Equine Option
Major Concentration
ANSC 200 Animal Science Careers 2 cr.
ANSC 231 Domestic Animal Nutrition 4 cr.
ANSC 257 Genetics 4 cr.
ANSC 260 Animal Physiology (Mgmt emphasis)
or ANSC 360 Animal Anatomy & Physiology (Science emphasis)
ANSC 345 Animal Health 2 cr.
ANSC 448 Physiology of Reproduction 3 cr.
ANSC 433 Advanced Nutrition 3 cr. (Science emphasis only)
ANSC 485 Seminar in Animal Science 1 cr.

Equine Option
ANSC 167 Equine Management 3 cr.
ANSC 168 Equine Equitation 2 cr.
ANSC 369 Horse Production 4 cr.
Select one:
ANSC 261 Advanced Horsemanship 3 cr.
or ANSC 268 Balanced Seat Applications 3 cr.

Management Emphasis
Directed Supporting
Select one statistics course:
ANSC 341 Biometrics
or AGEC 320, MATH 216, MATH 226, MATH 231, ECON 226

CHEM 215 Chemistry Lab Concepts & Tech 1 cr.
CHEM 230 General Organic Chemistry 3 cr.
AGBI 251 Agricultural Biochemistry 3 cr.

Directed Electives
AGEC 205 Ag Accounting 3 cr.

Select at least two from the following:
AFES 310 Ag Human Resource Mgmt
AGEC 345 Ag Law
AGEC 350 Ag Product Marketing
AGEC 360 Farm Management
AGEC 361 Small Agribusiness Management
AGEC 365 Ag Finance
AGEC 368 Professional Selling
AGEC 405 Farm Tax Management
AGEC 430 Entrepreneurial Management

Select one from the following:
CROP 262 Equine Forage Systems
CROP 263 Forage Crop Production
CROP 363 Pasture Production

Directed Equine Electives
Select at least three from the following:
ANSC 169 Therapeutic Riding 3 cr.
ANSC 213 Equine Evaluation 2 cr.
ANSC 261 or ANSC 268 3 cr. (can't double count)
ANSC 266 Farrier Training 2 cr.
ANSC 270 Internship 2-4 cr.
ANSC 313 Advanced Equine Evaluation 2 cr.
ANSC 350 Principles of Training 3 cr.
ANSC 351 Training II 1 cr.
ANSC 455 Equine Reproductive Techniques 3 cr.
ANSC 490 Independent Study 1-3 cr.

Science Emphasis
Directed Supporting
Select one statistics course:
ANSC 341 Biometrics
or AGEC 320, MATH 216, MATH 226, MATH 231, ECON 226

CHEM 231 Organic Chemistry I 3 cr.
CHEM 360 Biochemistry 4 cr.
BIOL 324 Microbiology 4 cr.

Required Courses
BIOL 230 General Zoology 3 cr.
CHEM 112 General Chemistry II 4 cr.
CHEM 116 General Chemistry Lab I 1 cr.
CHEM 117 General Chemistry Lab II 1 cr.
CHEM 236 Organic Chemistry Lab 1 cr.
MATH 147, MATH 149, or MATH 166 3-4 cr.
PHYS 121 or PHYS 131 General Physics I 5 cr.

**Meat Animal**

**Meat Animal Option**

**Major Concentration**

- ANSC 200 Animal Science Careers 2 cr.
- ANSC 231 Domestic Animal Nutrition 4 cr.
- ANSC 257 Genetics 4 cr.
- ANSC 260 Animal Physiology (Mgmt emphasis)
  or ANSC 360 Animal Anatomy & Physiology (Science emphasis)
- ANSC 345 Animal Health 2 cr.
- ANSC 448 Physiology of Reproduction 3 cr.
- ANSC 331 Applied Nutrition 3 cr. (Mgmt emphasis)
  or ANSC 433 Advanced Nutrition 3 cr. (Science emphasis)
- ANSC 485 Seminar in Animal Science 1 cr.

**Meat Animal Option**

- ANSC 211 Growth and Development 3 cr.
- ANSC 238 Meat & Meat Products 3 cr.
- ANSC 357 Applied Animal Breeding 2 cr.
  Select one of the following:
  - ANSC 150 Intro to Ruminant Production 3 cr.
  - ANSC 151 Intro to Monogastric Production 3 cr.
  Select one of the following:
  - ANSC 365 Poultry Mgmt 3 cr.
  or ANSC 366 Swine Mgmt 3 cr.
  or ANSC 367 Beef Mgmt 3 cr.
  or ANSC 368 Sheep Mgmt 3 cr.
  Select one of the following:
  - ANSC 240 Meat Processing 3 cr.
  or ANSC 415 Animal Welfare Assessment 3 cr.
  or ANSC 456 Bovine Reproductive Techniques 3 cr.
  or ANSC 467 Feedlot Management 3 cr.
  or a second meat animal production course from ANSC 364, 365, 366, 367, 368

**Management Emphasis**

**Directed Supporting**

- ANSC 341 Biometrics
  or AGEC 320, MATH 216, MATH 226, MATH 231, ECON 226

- CHEM 215 Chemistry Lab Concepts & Tech 1 cr.
- CHEM 230 General Organic Chemistry 3 cr.
- AGBI 251 Agricultural Biochemistry 3 cr.
- FDSC 235 Agricultural Microbiology 3 cr.

**Directed Electives**

- AGEC 205 Ag Accounting 3 cr.
  Select at least one from the following:
  - AFES 310 Ag Human Resource Mgmt
  - AGEC 345 Ag Law
  - AGEC 350 Ag Product Marketing
  - AGEC 355 Ag Markets & Prices
  - AGEC 360 Farm Management
Additional Electives (6 cr.)
Students may select any combination of 200 level or higher courses offered by Food Science, Ag Education, Ag Economics, Ag Engineering, Plant & Earth Science, Modern Languages, or the College of Business and Economics. ANSC 270 Internship credits count here.

Science Emphasis
Directed Supporting
ANSC 341 Biometrics
or AGEC 320, MATH 216, MATH 226, MATH 231, ECON 226

CHEM 231 Organic Chemistry I 3 cr.
CHEM 360 Foundations of Biochemistry 4 cr.
BIOL 324 Microbiology 4 cr.

Required Courses
BIOL 230 General Zoology 3 cr.
CHEM 112 General Chemistry II 4 cr.
CHEM 116 General Chemistry Lab I 1 cr.
CHEM 117 General Chemistry Lab II 1 cr.
CHEM 236 Organic Chemistry Lab I 1 cr.
MATH 147, MATH 149, MATH 166 3-4 cr.
PHYS 121 or PHYS 131 General Physics I 5 cr.

Veterinary Technology
Veterinary Technology Emphasis
Major Concentration
ANSC 200 Animal Science Careers 2 cr.
ANSC 231 Domestic Animal Nutrition 4 cr.
ANSC 257 Genetics 4 cr.
ANSC 260 Animal Physiology
ANSC 345 Animal Health 2 cr.
ANSC 448 Physiology of Reproduction 3 cr.
ANSC 485 Seminar in Animal Science 1 cr.
ANSC 121, ANSC 150, ANSC 151, ANSC 167 or DASC 106

Directed Supporting
CHEM 215 Chemi Lab Concepts & Tech 1 cr.
CHEM 230 General Organic Chemistry 3 cr.
AGBI 251 Ag Biochemistry 3 cr.
FDSC 235 Ag Microbiology
or BIOL 324 Microbiology

Other Required Courses
BIOL 230 Zoology 3 cr.
BIOL 240 Cell & Molecular Biology 3 cr.
Select one statistics course:
ANSC 341 Biometrics
or AGEC 320, MATH 216, MATH 226, MATH 231, ECON 226

37 credits (min) transferred from an accredited Veterinary Technician program
Animal Science Minor

Minor Requirements: 22 cr. hrs.

Required Courses: 12 cr. hrs.
ANSC 111 Introduction to Animal Science 3 cr.
ANSC 231 Principles of Nutrition 3 cr.
ANSC 232 Applied Feeds and Feeding 3 cr.
ANSC 257 Genetics 3 cr.

Directed Electives 3-4 cr. hrs.
Choose one course from the following:
ANSC 365 Poultry Production 3 cr.
ANSC 366 Swine Production 3 cr.
ANSC 367 Beef Production 3 cr.
ANSC 368 Sheep Production 3 cr.
ANSC 369 Equine Production 4 cr.

Animal Science Electives 6-7 cr. hrs.
Any combination of additional Animal Science (ANSC) courses to bring total credits in minor to a minimum of 22 cr. hrs.

Animal and Food Science Department
247 Agricultural Science
715-425-3704
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Gary Onan-Chair, Casie Bass, Larry Baumann,
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Steve Kelm, Justin Luther, Melkaye Melka,
Nathan O'Connor, Beth Rausch, Peter Rayne,
Kurt Vogel, Bonnie Walters
Anthropology Minor—24 Total Credits

Required Courses 12 cr. hrs.
ANTH 100 Introduction to Anthropology
(supporting course - counts 3 cr. hrs. in general education)
SOCI 231 Sociology of Globalization 3 cr.
SOCI 314 / ANTH 314 Faces of Culture 3 cr.
SOCI 333 / ANTH 333 Human and Cultural Origins 3 cr.
Choose one of the following:
SOCI 220 Sociology of Diversity: Race, Class and Gender 3 cr.
SOCI 220 / ANTH 322 Race and Ethnicity 3 cr.

General Electives in Sociology/Anthropology 12 cr. hrs.
Choose from:
SOCI 316 / ANTH 316 Social and Cultural Change 3 cr.
SOCI 326 / WGST 326 Sociology of Gender Roles 3 cr.
SOCI 331 / ANTH 331/WGST 331 Global Perspectives on Women 3 cr.
SOCI 332 Environmental Sociology 3 cr.
SOCI 338 / ANTH 338 Global Perspectives on Health and Disease 3 cr.
SOCI 342 / WGST 342 Sociology of the Family 3 cr.
SOCI 395 / ANTH 395 Belize Study Tour 3 cr.
Degree Requirements: 61 total credits
The Bachelor of Science in Applied Computing consists of 21 courses. Each student is required to successfully complete all courses to graduate. There are no electives in the program. The Capstone course is usually taken in the last semester.

APC 300 Programming 1
APC 310 Math for Computer Science
APC 320 Introduction to Business
APC 330 Technical and Professional Communication
APC 340 Legal and Ethical Responsibilities of the IT Professional
APC 350 Programming 2
APC 360 Database Management 1
APC 370 Systems Analysis and Design
APC 380 Project Management Techniques
APC 390 Object Oriented Programming
APC 400 Applied Communication Networks
APC 410 Database Management 2
APC 440 Web Development
APC 430 Applied Data Structures and Algorithms
APC 420 Computer Security 1
APC 450 Operating Systems Theory and Practice
APC 460 Software Engineering Practices
APC 470 IS Strategy and Management
APC 480 Computer Security 2
APC 490 Capstone Project Preparation
APC 495 Capstone Project

Prerequisites
- College Algebra (MATH 146 or equivalent)

General Education and University Requirements
All students enter this program with at least 60 college-level semester credits of transferable coursework with a 2.0 or better grade point average (GPA). In addition to the general education requirements, UW-River Falls students must complete two, university-required courses in American cultural diversity and global perspectives. See list of approved courses.
Art Major
BFA

Bachelor of Fine Arts (BFA) in Art History
Degree Program (67 credits)
All classes are 3 credits unless otherwise specified.

Required Supporting Course (3 credits)
University general requirement. Credits not included in BFA degree program credit count.
Special section of ART 100 for art degree seeking students.
ART 100 Introduction to Visual Art (Section 6)

BFA Core Requirements (28 credits)
ART 121 2D Design Foundation
ART 122 3D Design Foundation
ART 131 Drawing I
ART 132 Drawing II
ART 211 Western Art to 1500
ART 212 Renaissance to Early Modern Art History
ART 213 Art Since 1945: Modern and Contemporary Art History
ART 320 Drawing from the Figure
ART 485 Art Seminar
ART 486 Senior Exhibition (1 cr.)

Introductory Courses (18 credits)
Select at least 18 credits from the following:
** Indicates required Art History emphasis course.
* Indicates a repeatable course used to accumulate credits.
ART 226 Introduction to Fibers
ART 227 Introduction to Ceramics
ART 229 Introduction to Glass
ART 230 Cold Glass
ART 235 Introduction to Photography
ART 236 Introduction to Printmaking
ART 237 Introduction to Sculpture
ART 238 Introduction to Painting
ART 241 Graphic Design I
* ART 289 Special Topics (1-3 cr.)
ART 292 Introduction to Art Therapy
** ART 392 Pre-Columbian Art History

Art History Emphasis Area (15 credits)
Select at least 15 credits from the following:
* Indicates a repeatable course used to accumulate credits.
ART 291 Asian Art History
ART 308 History of Design
ART/ PHIL 310 Philosophy and History of Visual Art
ART 321 Gender and Art
* ART 389 Special Topics (1-3 cr.)

Secondary Emphasis Area (6 credits)
Select at least 6 credits from the following:
* Indicates a repeatable course used to accumulate credits.
ART 242 Design Studio I
ART 243 Typography I
ART 326 Studio-Fibers
ART 327 Studio-Ceramics
ART 329 Studio-Glass
ART 330 Studio-Drawing
ART 335 Studio-Photography
ART 336 Studio-Printmaking
ART 337 Studio-Sculpture
ART 338 Studio-Painting
ART 389 Special Topics (1-3 cr.)

Supporting Courses (3 courses)
College level requirement. Credits not included in BFA program credit count. Choose from the
recommended supporting courses listed below or from any College of Arts and Sciences
courses with consent from advisor.

ANTH 100 Introduction to Anthropology
CBE 370 International Study Tour for Business & Economics
COMS 207 Listening Skills
COMS 311 Persuasion
DANC 100 Dance Appreciation
DFT 200 / FILM 200 Introduction to Film Studies
DFT 353 Mass Media & Popular Culture
ENGL 251 Advanced Composition
ENGL 262 Creative Writing
ENGL 266 Business Writing
ENGL 367 Technical Writing
ENGL 270 Visual Rhetoric: Document Design and Graphics
ENGL 277 Experience Ireland: Culture and Landscape
ENGL 300 / FILM 300 / WGST 300 Women, Film and Society
ENGL 374 Cyberliteracy and Writing on the Web
ENGL 387 Technical and Professional Editing
FILM 200 Introduction to Film Studies
FILM 310 Sociology Through Film
FILM 442 World Cinema (g)
GEOG 120 Human Geography
HIST 371 Study Tour Research
HIST 382 Culture and Civilization of Italy: History and Art
from Antiquity to Baroque (g)
JOUR 123 Editing for Print Media
JOUR 240 Introduction to Visual Communication
MARC 360 Advertising
MODL 376 Mexico: Cultural Experience (g)
PHY 350 Science and Art
PSYC 236 Developmental Psychology: Childhood and Adolescence
PSYC 336 Developmental Psychology: Adulthood and Aging
SOCI 395 / ANTH 395 Belize Study Tour (g)
THEA 105 Introduction to Theatre & Drama
THEA 131 Design for the Theatre
THEA 227 World Puppetry (g)
THEA 339 American Theatre
UNIV 379 International Internship
WIS 310 Scotland: Heritage & Culture

Bachelor of Fine Arts (BFA) in Art History
Degree Program (67 credits)
All classes are 3 credits unless otherwise specified.
Required Supporting Course (3 credits)
University general requirement. Credits not included in BFA degree program credit count.
Special section of ART 100 for art degree seeking students.
ART 100 Introduction to Visual Art (Section 6)

BFA Core Requirements (28 credits)
ART 121 2D Design Foundation
ART 122 3D Design Foundation
ART 131 Drawing I
ART 132 Drawing II
ART 211 Western Art to 1500
ART 212 Renaissance to Early Modern Art History
ART 213 Art Since 1945: Modern and Contemporary Art History
ART 320 Drawing from the Figure
ART 485 Art Seminar
ART 486 Senior Exhibition (1 cr.)

Introductory Courses (18 credits)
Select at least 18 credits from the following:
** Indicates required Art History emphasis course.
* Indicates a repeatable course used to accumulate credits.
ART 226 Introduction to Fibers
ART 227 Introduction to Ceramics
ART 229 Introduction to Glass
ART 230 Cold Glass
ART 235 Introduction to Photography
ART 236 Introduction to Printmaking
ART 237 Introduction to Sculpture
ART 238 Introduction to Painting
ART 241 Graphic Design I
* ART 289 Special Topics (1-3 cr.)
ART 292 Introduction to Art Therapy
** ART 392 Pre-Columbian Art History

Art History Emphasis Area (15 credits)
Select at least 15 credits from the following:
* Indicates a repeatable course used to accumulate credits.
ART 291 Asian Art History
ART 308 History of Design
ART 310 / PHIL 310 Philosophy and History of Visual Art
ART 321 Gender and Art
* ART 389 Special Topics (1-3 cr.)

Secondary Emphasis Area (6 credits)
Select at least 6 credits from the following:
* Indicates a repeatable course used to accumulate credits.
ART 242 Design Studio I
ART 243 Typography I
* ART 326 Studio-Fibers
* ART 327 Studio-Ceramics
* ART 329 Studio-Glass
* ART 330 Studio-Drawing
* ART 335 Studio-Photography
* ART 336 Studio-Printmaking
* ART 337 Studio-Sculpture
* ART 338 Studio-Painting
* ART 389 Special Topics (1-3 cr.)
Supporting Courses (3 courses)
College level requirement. Credits not included in BFA program credit count. Choose from the recommended supporting courses listed below or from any College of Arts and Sciences courses with consent from advisor.

ANTH 100 Introduction to Anthropology
CBE 370 International Study Tour for Business & Economics
COMS 207 Listening Skills
COMS 311 Persuasion
DANC 100 Dance Appreciation
DFT200 / FILM 200 Introduction to Film Studies
DFT 353 Mass Media & Popular Culture
ENGL 251 Advanced Composition
ENGL 262 Creative Writing
ENGL 266 Business Writing
ENGL 367 Technical Writing
ENGL 270 Visual Rhetoric: Document Design and Graphics
ENGL 277 Experience Ireland: Culture and Landscape
ENGL300 / FILM 300 / WGST 300 Women, Film and Society
ENGL 374 Cyberliteracy and Writing on the Web
ENGL 387 Technical and Professional Editing
FILM 200 Introduction to Film Studies
FILM 310 Sociology Through Film
FILM 442 World Cinema (g)
GEOG 120 Human Geography
HIST 371 Study Tour Research
HIST 382 Culture and Civilization of Italy: History and Art from Antiquity to Baroque (g)
JOUR 123 Editing for Print Media
JOUR 240 Introduction to Visual Communication
MARC 360 Advertising
MODL 376 Mexico: Cultural Experience (g)
PHY 350 Science and Art
PSYC 236 Developmental Psychology:
Childhood and Adolescence
PSYC 336 Developmental Psychology: Adulthood and Aging
SOCI 395 / ANTH 395 Belize Study Tour (g)
THEA 105 Introduction to Theatre & Drama
THEA 131 Design for the Theatre
THEA 227 World Puppetry (g)
THEA 339 American Theatre
UNIV 379 International Internship
WIS 310 Scotland: Heritage & Culture

Ceramics

Bachelor of Fine Arts (BFA) in Ceramics
Degree Program (67 credits)
All classes are 3 credits unless otherwise specified.

Required Supporting Course (3 credits)
University general requirement. Credits not included in BFA degree program credit count.
Special section of ART 100 for art degree seeking students.
ART 100 Introduction to Visual Art (Section 6)

BFA Core Requirements (28 credits)
ART 121 2D Design Foundation
ART 122 3D Design Foundation
ART 131 Drawing I
ART 132 Drawing II
ART 211 Western Art to 1500
ART 212 Renaissance to Early Modern Art History
ART 213 Art Since 1945: Modern and Contemporary Art History
ART 320 Drawing from the Figure
ART 485 Art Seminar
ART 486 Senior Exhibition (1 cr.)

Introductory Courses (18 credits)
Select at least 18 credits from the following:
** Indicates required Ceramics emphasis course.
* Indicates a repeatable course used to accumulate credits.
ART 226 Introduction to Fibers
** ART 227 Introduction to Ceramics
ART 229 Introduction to Glass
ART 230 Cold Glass
ART 235 Introduction to Photography
ART 236 Introduction to Printmaking
ART 237 Introduction to Sculpture
ART 238 Introduction to Painting
ART 241 Graphic Design I
* ART 289 Special Topics (1-3 cr.)
ART 291 Asian Art History
ART 292 Introduction to Art Therapy

Ceramics Emphasis Area (15 credits)
Select at least 15 credits from the following:
** Indicates required Ceramics emphasis course.
* Indicates a repeatable course used to accumulate credits.
** ART 327 Studio-Ceramics
* ART 389 Special Topics (1-3 cr.)

Secondary Emphasis Area (6 credits)
Select at least 6 credits from the following:
* Indicates a repeatable course used to accumulate credits.
ART 242 Design Studio I
ART 243 Typography I
ART 308 History of Design
ART/PHIL 310 Philosophy and History of Visual Art
ART 321 Gender and Art
* ART 326 Studio-Fibers
* ART 328 Studio-Glass
* ART 330 Studio-Drawing
* ART 335 Studio-Photography
* ART 336 Studio-Printmaking
* ART 337 Studio-Sculpture
* ART 338 Studio-Painting
* ART 389 Special Topics (1-3 cr.)
ART 392 Pre-Columbian Art History

Supporting Courses (3 courses)
College level requirement. Credits not included in BFA program credit count. Choose from the recommended supporting courses listed below or from any College of Arts and Sciences courses with consent from advisor.
ANTH 100 Introduction to Anthropology
Bachelor of Fine Arts (BFA) in Drawing

Degree Program (67 credits)
All classes are 3 credits unless otherwise specified.

Required Supporting Course (3 credits)
University general requirement. Credits not included in BFA degree program credit count. Special section of ART 100 for art degree seeking students.
ART 100 Introduction to Visual Art (Section 6)

BFA Core Requirements (28 credits)
ART 121 2D Design Foundation
ART 122 3D Design Foundation
ART 131 Drawing I
ART 132 Drawing II
ART 211 Western Art to 1500
ART 212 Renaissance to Early Modern Art History
Introductory Courses (18 credits)
Select at least 18 credits from the following:
* Indicates a repeatable course used to accumulate credits.

- ART 226 Introduction to Fibers
- ART 227 Introduction to Ceramics
- ART 229 Introduction to Glass
- ART 230 Cold Glass
- ART 235 Introduction to Photography
- ART 236 Introduction to Printmaking
- ART 237 Introduction to Sculpture
- ART 238 Introduction to Painting
- ART 241 Graphic Design I

* ART 289 Special Topics (1-3 cr.)
* ART 291 Asian Art History
* ART 292 Introduction to Art Therapy

Drawing Emphasis Area (15 credits)
Select at least 15 credits from the following:
** Indicates required Drawing emphasis course.
* Indicates a repeatable course used to accumulate credits.

** ART 330 Studio-Drawing

* ART 389 Special Topics (1-3 cr.)

Secondary Emphasis Area (6 credits)
Select at least 6 credits from the following:
* Indicates a repeatable course used to accumulate credits.

- ART 242 Design Studio I
- ART 243 Typography I
- ART 308 History of Design
- ART/PHIL 310 Philosophy and History of Visual Art
- ART 321 Gender and Art

* ART 326 Studio-Fibers
* ART 327 Studio-Ceramics
* ART 329 Studio-Glass
* ART 333 Studio-Photography
* ART 336 Studio-Printmaking
* ART 337 Studio-Sculpture
* ART 338 Studio-Painting

* ART 389 Special Topics (1-3 cr.)
* ART 392 Pre-Columbian Art History

Supporting Courses (3 courses)
College level requirement. Credits not included in BFA program credit count. Choose from the recommended supporting courses listed below or from any College of Arts and Sciences courses with consent from advisor.

- ANTH 100 Introduction to Anthropology
- CBE 370 International Study Tour for Business & Economics
- COMS 207 Listening Skills
- COMS 311 Persuasion
- DANC 100 Dance Appreciation
- DFT/FILM 200 Introduction to Film Studies
- DFT 353 Mass Media & Popular Culture
ENGL 251 Advanced Composition
ENGL 262 Creative Writing
ENGL 266 Business Writing
ENGL 367 Technical Writing
ENGL 270 Visual Rhetoric: Document Design and Graphics
ENGL 277 Experience Ireland: Culture and Landscape
ENGL/FILM/WGST 300 Women, Film and Society
ENGL 374 Cyberliteracy and Writing on the Web
ENGL 387 Technical and Professional Editing
FILM 200 Introduction to Film Studies
FILM 310 Sociology Through Film
FILM 442 World Cinema (g)
GEOG 120 Human Geography
HIST 371 Study Tour Research
HIST 382 Culture and Civilization of Italy: History and Art from Antiquity to Baroque (g)
JOUR 123 Editing for Print Media
JOUR 240 Introduction to Visual Communication
MARC 360 Advertising
MODL 376 Mexico: Cultural Experience (g)
PHY 350 Science and Art
PSYC 236 Developmental Psychology: Childhood and Adolescence
PSYC 336 Developmental Psychology: Adulthood and Aging
SOCI/ANTH 395 Belize Study Tour (g)
THEA 105 Introduction to Theatre & Drama
THEA 131 Design for the Theatre
THEA 227 World Puppetry (g)
THEA 339 American Theatre
UNIV 379 International Internship
WIS 310 Scotland: Heritage & Culture

Glass

Bachelor of Fine Arts (BFA) in Glass

Degree Program (67 credits)
All classes are 3 credits unless otherwise specified.

Required Supporting Course (3 credits)
University general requirement. Credits not included in BFA degree program credit count.
Special section of ART 100 for art degree seeking students.
ART 100 Introduction to Visual Art (Section 6)

BFA Core Requirements (28 credits)
ART 121 2D Design Foundation
ART 122 3D Design Foundation
ART 131 Drawing I
ART 132 Drawing II
ART 211 Western Art to 1500
ART 212 Renaissance to Early Modern Art History
ART 213 Art Since 1945: Modern and Contemporary Art History
ART 320 Drawing from the Figure
ART 485 Art Seminar
ART 486 Senior Exhibition (1 cr.)

Introductory Courses (18 credits)
Select at least 18 credits from the following:

** Indicates required Glass emphasis course.
* Indicates a repeatable course used to accumulate credits.

- ART 226 Introduction to Fibers
- ART 227 Introduction to Ceramics
- ** ART 229 Introduction to Glass
- ** ART 230 Cold Glass
- ART 235 Introduction to Photography
- ART 236 Introduction to Printmaking
- ART 237 Introduction to Sculpture
- ART 238 Introduction to Painting
- ART 241 Graphic Design I
- * ART 289 Special Topics (1-3 cr.)
- ART 291 Asian Art History
- ART 292 Introduction to Art Therapy

Glass Emphasis Area (15 credits)
Select at least 15 credits from the following:

** Indicates required Glass emphasis course.
* Indicates a repeatable course used to accumulate credits.

** ART 329 Studio-Glass
* ART 389 Special Topics (1-3 cr.)

Secondary Emphasis Area (6 credits)
Select at least 6 credits from the following:

* Indicates a repeatable course used to accumulate credits.

- ART 242 Design Studio I
- ART 243 Typography I
- ART 308 History of Design
- ART/PHIL 310 Philosophy and History of Visual Art
- ART 321 Gender and Art
- * ART 326 Studio-Fibers
- * ART 327 Studio-Ceramics
- * ART 330 Studio-Drawing
- * ART 335 Studio-Photography
- * ART 336 Studio-Printmaking
- * ART 337 Studio-Sculpture
- * ART 338 Studio-Painting
- * ART 389 Special Topics (1-3 cr.)
- ART 392 Pre-Columbian Art History

Supporting Courses (3 courses)
College level requirement. Credits not included in BFA program credit count. Choose from the recommended supporting courses listed below or from any College of Arts and Sciences courses with consent from advisor.

- ANTH 100 Introduction to Anthropology
- CBE 370 International Study Tour for Business & Economics
- COMS 207 Listening Skills
- COMS 311 Persuasion
- DANC 100 Dance Appreciation
- DFT/FILM 200 Introduction to Film Studies
- DFT 353 Mass Media & Popular Culture
- ENGL 251 Advanced Composition
- ENGL 262 Creative Writing
- ENGL 268 Business Writing
- ENGL 367 Technical Writing
- ENGL 270 Visual Rhetoric: Document Design and Graphics
ENGL 277 Experience Ireland: Culture and Landscape
ENGL/FILM/WGST 300 Women, Film and Society
ENGL 374 Cyberliteracy and Writing on the Web
ENGL 387 Technical and Professional Editing
FILM 200 Introduction to Film Studies
FILM 310 Sociology Through Film
FILM 442 World Cinema (g)
GEOG 120 Human Geography
HIST 371 Study Tour Research
HIST 382 Culture and Civilization of Italy: History and Art from Antiquity to Baroque (g)
JOUR 123 Editing for Print Media
JOUR 240 Introduction to Visual Communication
MARC 360 Advertising
MODL 376 Mexico: Cultural Experience (g)
PHY 350 Science and Art
PSYC 236 Developmental Psychology: Childhood and Adolescence
PSYC 336 Developmental Psychology: Adulthood and Aging
SOCI/ANTH 395 Belize Study Tour (g)
THEA 105 Introduction to Theatre & Drama
THEA 131 Design for the Theatre
THEA 227 World Puppetry (g)
THEA 339 American Theatre
UNIV 379 International Internship
WIS 310 Scotland: Heritage & Culture

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**Graphic Design**

Bachelor of Fine Arts (BFA) in Graphic Design
Degree Program (67 credits)
All classes are 3 credits unless otherwise specified.

Required Supporting Course (3 credits)
University general requirement. Credits not included in BFA degree program credit count.
Special section of ART 100 for art degree seeking students.
ART 100 Introduction to Visual Art (Section 6)

BFA Core Requirements (28 credits)
ART 121 2D Design Foundation
ART 122 3D Design Foundation
ART 131 Drawing I
ART 132 Drawing II
ART 211 Western Art to 1500
ART 212 Renaissance to Early Modern Art History
ART 213 Art Since 1945: Modern and Contemporary Art History
ART 320 Drawing from the Figure
ART 449 Graphic Design Practice
ART 486 Senior Exhibition (1 cr.)

Introductory Courses (18 credits)
Select at least 18 credits from the following:
** Indicates required Graphic Design emphasis course.
ART 226 Introduction to Fibers
ART 227 Introduction to Ceramics
ART 229 Introduction to Glass
ART 230 Cold Glass
ART 235 Introduction to Photography
ART 236 Introduction to Printmaking
ART 237 Introduction to Sculpture
ART 238 Introduction to Painting
** ART 241 Graphic Design I
** ART 242 Design Studio I
** ART 243 Typography I
ART 289 Special Topics (1-3 cr.)
ART 291 Asian Art History
ART 292 Introduction to Art Therapy

Graphic Design Emphasis Area (15 credits)
Select at least 15 credits from the following:
** Indicates required Graphic Design emphasis course.
* Indicates a repeatable course used to accumulate credits.
** ART 308 History of Design
** ART 341 Graphic Design II
** ART 342 Design Studio II
** ART 343 Typography II
ART 344 Advertising Design
ART 345 Information Graphics
ART 346 Package Design
* ART 389 Special Topics (1-3 cr.)

Secondary Emphasis Area (6 credits)
Select at least 6 credits from the following:
* Indicates a repeatable course used to accumulate credits.
ART/PHIL 310 Philosophy and History of Visual Art
ART 321 Gender and Art
* ART 326 Studio-Fibers
* ART 327 Studio-Ceramics
* ART 329 Studio-Glass
* ART 330 Studio-Drawing
* ART 335 Studio-Photography
* ART 336 Studio-Printmaking
* ART 337 Studio-Sculpture
* ART 338 Studio-Painting
* ART 389 Special Topics (1-3 cr.)
ART 392 Pre-Columbian Art History

Supporting Courses (3 courses)
College level requirement. Credits not included in BFA program credit count. Choose from the recommended supporting courses listed below or from any College of Arts and Sciences courses with consent from advisor.
ANTH 100 Introduction to Anthropology
CBE 370 International Study Tour for Business & Economics
COMS 207 Listening Skills
COMS 311 Persuasion
DANC 100 Dance Appreciation
DFT/FILM 200 Introduction to Film Studies
DFT 353 Mass Media & Popular Culture
ENGL 251 Advanced Composition
ENGL 262 Creative Writing
ENGL 266 Business Writing
ENGL 367 Technical Writing
ENGL 270 Visual Rhetoric: Document Design and Graphics
Bachelor of Fine Arts (BFA) in Painting

Degree Program (67 credits)
All classes are 3 credits unless otherwise specified.

Required Supporting Course (3 credits)
University general requirement. Credits not included in BFA degree program credit count.
Special section of ART 100 for art degree seeking students.
ART 100 Introduction to Visual Art (Section 6)

BFA Core Requirements (28 credits)
ART 121 2D Design Foundation
ART 122 3D Design Foundation
ART 131 Drawing I
ART 132 Drawing II
ART 211 Western Art to 1500
ART 212 Renaissance to Early Modern Art History
ART 213 Art Since 1945: Modern and Contemporary Art History
ART 320 Drawing from the Figure
ART 485 Art Seminar
ART 486 Senior Exhibition (1 cr.)

Introductory Courses (18 credits)
Select at least 18 credits from the following:
** Indicates required Painting emphasis course.
* Indicates a repeatable course used to accumulate credits.
ART 226 Introduction to Fibers
ART 227 Introduction to Ceramics
ART 229 Introduction to Glass
ART 230 Cold Glass
ART 235 Introduction to Photography
ART 236 Introduction to Printmaking
ART 237 Introduction to Sculpture
** ART 238 Introduction to Painting
ART 241 Graphic Design I
* ART 288 Special Topics (1-3 cr.)
ART 291 Asian Art History
ART 292 Introduction to Art Therapy

Painting Emphasis Area (15 credits)
Select at least 15 credits from the following:
** Indicates required Painting emphasis course.
* Indicates a repeatable course used to accumulate credits.
** ART 338 Studio-Painting
* ART 389 Special Topics (1-3 cr.)

Secondary Emphasis Area (6 credits)
Select at least 6 credits from the following:
* Indicates a repeatable course used to accumulate credits.
ART 242 Design Studio I
ART 243 Typography I
ART 308 History of Design
ART/PHIL 310 Philosophy and History of Visual Art
ART 321 Gender and Art
* ART 326 Studio-Fibers
* ART 327 Studio-Ceramics
* ART 329 Studio-Glass
* ART 330 Studio-Drawing
* ART 335 Studio-Photography
* ART 336 Studio-Printmaking
* ART 337 Studio-Sculpture
* ART 389 Special Topics (1-3 cr.)
ART 392 Pre-Columbian Art History

Supporting Courses (3 courses)
College level requirement. Credits not included in BFA program credit count. Choose from the recommended supporting courses listed below or from any College of Arts and Sciences courses with consent from advisor.
ANTH 100 Introduction to Anthropology
CBE 370 International Study Tour for Business & Economics
COMS 207 Listening Skills
COMS 311 Persuasion
DANC 100 Dance Appreciation
DFT/FILM 200 Introduction to Film Studies
DFT 353 Mass Media & Popular Culture
ENGL 251 Advanced Composition
ENGL 262 Creative Writing
ENGL 268 Business Writing
ENGL 367 Technical Writing
ENGL 270 Visual Rhetoric: Document Design and Graphics
ENGL 277 Experience Ireland: Culture and Landscape
ENGL/FILM/WGST 300 Women, Film and Society
ENGL 374 Cyberliteracy and Writing on the Web
ENGL 387 Technical and Professional Editing
FILM 200 Introduction to Film Studies
Photography

Bachelor of Fine Arts (BFA) in Photography
Degree Program (67 credits)
All classes are 3 credits unless otherwise specified.

Required Supporting Course (3 credits)
University general requirement. Credits not included in BFA degree program credit count. Special section of ART 100 for art degree seeking students.
ART 100 Introduction to Visual Art (Section 6)

BFA Core Requirements (28 credits)
ART 121 2D Design Foundation
ART 122 3D Design Foundation
ART 131 Drawing I
ART 132 Drawing II
ART 211 Western Art to 1500
ART 212 Renaissance to Early Modern Art History
ART 213 Art Since 1945: Modern and Contemporary Art History
ART 320 Drawing from the Figure
ART 485 Art Seminar
ART 486 Senior Exhibition (1 cr.)

Introductory Courses (18 credits)
Select at least 18 credits from the following:
** Indicates required Photography emphasis course.
* Indicates a repeatable course used to accumulate credits.
ART 226 Introduction to Fibers
ART 227 Introduction to Ceramics
ART 229 Introduction to Glass
ART 230 Cold Glass
** ART 235 Introduction to Photography
ART 236 Introduction to Printmaking
ART 237 Introduction to Sculpture
ART 238 Introduction to Painting
ART 241 Graphic Design I
* ART 289 Special Topics (1-3 cr.)
ART 291 Asian Art History
ART 292 Introduction to Art Therapy

Photography Emphasis Area (15 credits)
Select at least 15 credits from the following:
** Indicates required Photography emphasis course.
* Indicates a repeatable course used to accumulate credits.
** ART 335 Studio-Photography
* ART 389 Special Topics (1-3 cr.)

Secondary Emphasis Area (6 credits)
Select at least 6 credits from the following:
* Indicates a repeatable course used to accumulate credits.
ART 242 Design Studio I
ART 243 Typography I
ART 308 History of Design
ART/PHIL 310 Philosophy and History of Visual Art
ART 321 Gender and Art
* ART 326 Studio-Fibers
* ART 327 Studio-Ceramics
* ART 329 Studio-Glass
* ART 330 Studio-Drawing
* ART 336 Studio-Printmaking
* ART 337 Studio-Sculpture
* ART 238 Introduction to Painting
* ART 389 Special Topics (1-3 cr.)
ART 392 Pre-Columbian Art History

Supporting Courses (3 courses)
College level requirement. Credits not included in BFA program credit count. Choose from the recommended supporting courses listed below below or from any College of Arts and Sciences courses with consent from advisor.
ANTH 100 Introduction to Anthropology
CBE 370 International Study Tour for Business & Economics
COMS 207 Listening Skills
COMS 311 Persuasion
DANC 100 Dance Appreciation
DFT/FILM 200 Introduction to Film Studies
DFT 353 Mass Media & Popular Culture
ENGL 251 Advanced Composition
ENGL 262 Creative Writing
ENGL 268 Business Writing
ENGL 367 Technical Writing
ENGL 270 Visual Rhetoric: Document Design and Graphics
ENGL 277 Experience Ireland: Culture and Landscape
ENGL/FILM/WWST 300 Women, Film and Society
ENGL 374 Cyberliteracy and Writing on the Web
ENGL 387 Technical and Professional Editing
FILM 200 Introduction to Film Studies
FILM 310 Sociology Through Film
FILM 442 World Cinema (g)
GEOG 120 Human Geography
HIST 371 Study Tour Research
HIST 382 Culture and Civilization of Italy: History and Art
from Antiquity to Baroque (g)
JOUR 123 Editing for Print Media
JOUR 240 Introduction to Visual Communication
MARC 360 Advertising
MODL 376 Mexico: Cultural Experience (g)
PHY 350 Science and Art
PSYC 236 Developmental Psychology:
 Childhood and Adolescence
PSYC 336 Developmental Psychology: Adulthood and Aging
SOCI/ANTH 395 Belize Study Tour (g)
THEA 105 Introduction to Theatre & Drama
THEA 131 Design for the Theatre
THEA 227 World Puppetry (g)
THEA 339 American Theatre
UNIV 379 International Internship
WIS 310 Scotland: Heritage & Culture

Printmaking

Bachelor of Fine Arts (BFA) in Printmaking
Degree Program (67 credits)
All classes are 3 credits unless otherwise specified.

Required Supporting Course (3 credits)
University general requirement. Credits not included in BFA degree program credit count.
Special section of ART 100 for art degree seeking students.
ART 100 Introduction to Visual Art (Section 6)

BFA Core Requirements (28 credits)
ART 121 2D Design Foundation
ART 122 3D Design Foundation
ART 131 Drawing I
ART 132 Drawing II
ART 211 Western Art to 1500
ART 212 Renaissance to Early Modern Art History
ART 213 Art Since 1945: Modern and Contemporary Art History
ART 320 Drawing from the Figure
ART 485 Art Seminar
ART 486 Senior Exhibition (1 cr.)

Introductory Courses (18 credits)
Select at least 18 credits from the following:
** Indicates required Printmaking emphasis course.
* Indicates a repeatable course used to accumulate credits.
ART 226 Introduction to Fibers
ART 227 Introduction to Ceramics
ART 229 Introduction to Glass
ART 230 Cold Glass
ART 235 Introduction to Photography
** ART 236 Introduction to Printmaking
ART 237 Introduction to Sculpture
ART 238 Introduction to Painting
ART 241 Graphic Design I
* ART 289 Special Topics (1-3 cr.)
ART 291 Asian Art History
ART 292 Introduction to Art Therapy

Printmaking Emphasis Area (15 credits)
Select at least 15 credits from the following:
** Indicates required Printmaking emphasis course.
* Indicates a repeatable course used to accumulate credits.
** ART 336 Studio-Printmaking
* ART 389 Special Topics (1-3 cr.)

Secondary Emphasis Area (6 credits)
Select at least 6 credits from the following:
* Indicates a repeatable course used to accumulate credits.
ART 242 Design Studio I
ART 243 Typography I
ART 308 History of Design
ART/PHIL 310 Philosophy and History of Visual Art
ART 321 Gender and Art
* ART 326 Studio-Fibers
* ART 327 Studio-Ceramics
* ART 329 Studio-Glass
* ART 330 Studio-Drawing
* ART 335 Studio-Photography
* ART 337 Studio-Sculpture
* ART 338 Introduction to Painting
* ART 389 Special Topics (1-3 cr.)
ART 392 Pre-Columbian Art History

Supporting Courses (3 courses)
College level requirement. Credits not included in BFA program credit count. Choose from the recommended supporting courses listed below or from any College of Arts and Sciences courses with consent from advisor.
ANTH 100 Introduction to Anthropology
CBE 370 International Study Tour for Business & Economics
COMS 207 Listening Skills
COMS 311 Persuasion
DANC 100 Dance Appreciation
DFT/FILM 200 Introduction to Film Studies
DFT 353 Mass Media & Popular Culture
ENGL 251 Advanced Composition
ENGL 262 Creative Writing
ENGL 266 Business Writing
ENGL 367 Technical Writing
ENGL 270 Visual Rhetoric: Document Design and Graphics
ENGL 277 Experience Ireland: Culture and Landscape
ENGL/FILM/WGST 300 Women, Film and Society
ENGL 374 Cyberliteracy and Writing on the Web
ENGL 387 Technical and Professional Editing
FILM 200 Introduction to Film Studies
FILM 310 Sociology Through Film
FILM 442 World Cinema (g)
GEOG 120 Human Geography
HIST 371 Study Tour Research
HIST 382 Culture and Civilization of Italy: History and Art from Antiquity to Baroque (g)
JOUR 123 Editing for Print Media
JOUR 240 Introduction to Visual Communication
MARC 360 Advertising
MODL 376 Mexico: Cultural Experience (g)
PHY 350 Science and Art
PSYC 236 Developmental Psychology: Childhood and Adolescence
PSYC 336 Developmental Psychology: Adulthood and Aging
SOCI/ANTH 395 Belize Study Tour (g)
THEA 105 Introduction to Theatre & Drama
THEA 131 Design for the Theatre
THEA 227 World Puppetry (g)
THEA 339 American Theatre
UNIV 379 International Internship
WIS 310 Scotland: Heritage & Culture

Art

Art (BS)

Degree Program (57 credits)
All classes are 3 credits unless otherwise specified.

Required Supporting Course (3 credits)
University general requirement. Credits not included in BFA degree program credit count. Special section of ART 100 for art degree seeking students.
ART 100 Introduction to Visual Art (Section 6)

Core Requirements (24 credits)
ART 121 2D Design Foundation
ART 122 3D Design Foundation
ART 131 Drawing I
ART 132 Drawing II
ART 211 Western Art to 1500
ART 212 Renaissance to Early Modern Art History
ART 213 Art Since 1945: Modern and Contemporary Art History
ART 485 Art Seminar

Introductory Courses (18 credits)
Select at least 18 credits from the following:
* Indicates a repeatable course used to accumulate credits.
ART 227 Introduction to Ceramics
ART 229 Introduction to Glass
ART 230 Cold Glass
ART 235 Introduction to Photography
ART 236 Introduction to Printmaking
ART 238 Introduction to Painting
ART 241 Graphic Design I
ART 242 Design Studio I
* ART 289 Special Topics (1-3 cr.)
ART 291 Asian Art History
ART 292 Introduction to Art Therapy

Upper Division Courses (15 credits)
Select at least 15 credits from the following:
* Indicates a repeatable course used to accumulate credits.
ART 308 History of Design
ART310 / PHIL 310 Philosophy and History of Visual Art
ART 321 Gender and Art
* ART 327 Studio-Ceramics
* ART 329 Studio-Glass
* ART 330 Studio-Drawing
* ART 335 Studio-Photography
* ART 336 Studio-Printmaking
* ART 338 Studio-Painting
* ART 389 Special Topics (1-3 cr.)
ART 392 Pre-Columbian Art History
ART 486 Senior Exhibition (1 cr.)

Art Minor (24 credits)
All classes are 3 credits unless otherwise specified.

Foundation Courses (9 credits)
Select at least 9 credits from the following:
ART 121 2D Design Foundation
ART 131 Drawing I
ART 211 Western Art to 1500
ART 212 Renaissance to Early Modern Art History

Introductory Courses (6 credits)
Select at least 6 credits from the following:
* Indicates a repeatable course used to accumulate credits.
ART 225 Advertising Design I
ART 226 Introduction to Fibers
ART 227 Introduction to Ceramics
ART 229 Introduction to Glass
ART 235 Introduction to Photography
ART 236 Introduction to Printmaking
ART 237 Introduction to Sculpture
ART 238 Introduction to Painting
* ART 289 Special Topics (1-3 cr.)

Upper Division Courses (9 credits)
Select at least 9 credits from the following:
* Indicates a repeatable course used to accumulate credits.
* ART 326 Studio-Fibers
* ART 327 Studio-Ceramics
* ART 329 Studio-Glass
* ART 335 Studio-Photography
* ART 336 Studio-Printmaking
* ART 337 Studio-Sculpture
* ART 338 Studio-Painting
* ART 389 Special Topics (1-3 cr.)

Art Education

Art Education
Degree Program (58-59 credits, art portion of degree)
All classes are 3 credits unless otherwise specified.

Core Requirements (26-27 credits)
ART 121 Design Foundation
ART 122 3D Design Foundation
ART 131 Drawing I
ART 132 Drawing II
ART 211 Western Art to 1500
ART 212 Art History Since 1500
ART 485 Art Seminar

**Addition Art History Course (2-3 Credits)**
Select at least 2 credits from the following:
* Indicates a repeatable course used to accumulate credits.
- ART 308 History of Design
- ART310 / PHIL 310 Philosophy and History of Visual Art
- ART 321 Gender and Art
- ART 392 Pre-Columbian Art History
*ART 389 Special Topics (1-3 cr.)

**Introductory Courses (18 credits)**
Select at least 18 credits from the following:
* Indicates a repeatable course used to accumulate credits.
- ART 225 Advertising Design I
- ART 227 Introduction to Ceramics
- ART 229 Introduction to Glass
- ART 230 Cold Glass
- ART 235 Introduction to Photography
- ART 236 Introduction to Printmaking
- ART 238 Introduction to Painting
- ART 241 Graphic Design I
- Art 250 Child Art (2 cr.)
- Art 251 Middle and Secondary Art (2 cr. spring only)
* ART 289 Special Topics (1-3 cr.)
- ART 291Asian Art History
- ART 292 Introduction to Art Therapy

**Upper Division Courses (14 credits)**
Select at least 15 credits from the following:
* Indicates a repeatable course used to accumulate credits.
- ART 242 Design Studio I
- ART 243 Typography I
* ART 327 Studio-Ceramics
* ART 329 Studio-Glass
* ART 330 Studio-Drawing
* ART 335 Studio-Photography
* ART 336 Studio-Printmaking
* ART 338 Studio-Painting
* ART 389 Special Topics (1-3 cr.)

**Required Teacher Education Courses**
- TED 100 Education and Technology
- TED 212 Educational Psychology: Middle & Secondary Education
- TED 252 Foundation of Multicultural Education
- SPED 330 Introduction to Special Education
NOTE: Must be accepted into Teacher Education to take following courses.

TED 420 School and Society
TED 422 Secondary School and Content Area Reading
TED 430 Techniques in Art
TED 472 Student Teaching - Initial
or
TED 479 K-12 Internship Teaching
or
TED 474 Student Teaching - COST
Art Minors

Art
Art Minor (24 credits)
All classes are 3 credits unless otherwise specified.

Foundation Courses (9 credits)
Select at least 9 credits from the following:
ART 121 2D Design Foundation
ART 131 Drawing I
ART 211 Western Art to 1500
ART 212 Renaissance to Early Modern Art History

Introductory Courses (6 credits)
Select at least 6 credits from the following:
* Indicates a repeatable course used to accumulate credits.
ART 227 Introduction to Ceramics
ART 229 Introduction to Glass
ART 235 Introduction to Photography
ART 236 Introduction to Printmaking
ART 238 Introduction to Painting
ART 241 Graphic Design I
* ART 289 Special Topics (1-3 cr.)

Upper Division Courses (9 credits)
Select at least 9 credits from the following:
* Indicates a repeatable course used to accumulate credits.
* ART 327 Studio-Ceramics
* ART 329 Studio-Glass
* ART 335 Studio-Photography
* ART 336 Studio-Printmaking
* ART 338 Studio-Painting
* ART 389 Special Topics (1-3 cr.)

Art History
Art History Minor: 24 Credits
Required Core Courses: 9 Credits
ART 211 West Art to 1500 3 cr.
ART 212 West Art Since 1500 3 cr.
ART 213 Art since 1945: Modern and Contemporary Art History 3 cr.

Directed Art History Electives: 9 Credits
Choose 6 Credits from Modern and Contemporary Art History Electives
ART 308 History of Design 3 cr.
PHIL 310 Philosophy and History of Visual Art 3 cr.
ART 321 Gender and Art 3 cr.

Choose 3 Credits from Global Art History Electives
ART 291 Asian Art History (GP)* 3 cr.
ART 392 Pre-Columbian Art History (MD) 3 cr.

Directed Studio Art Electives: 6 Credits
Choose 3 Credits from 2-D Studio Electives
ART 131 Drawing I 3 cr.
ART 235 Introduction to Photography 3 cr.
ART 236 Introduction to Printmaking 3 cr.
ART 238 Introduction to Painting 3 cr.

Art Department
172 Kleinpell Fine Arts
715-425-3266
www.uwrf.edu/ART/

FACULTY
- Eoin Breadon, (Chair), Glass
- Heather Delisle, Art Education, Foundation Studies
- Michael Helke, Ceramics
- Brett Kallusky, Photography
- Jeannine Kitzhaber, Painting, Drawing
- Ann Lawton, Art Therapy, Foundation Studies
- Peter Mak, Painting, Drawing
- Dan Paulus, Graphic Design
- Mary Rohl, Graphic Design, Foundation Studies
- Nikki Schneider, Printmaking
- Kaylee Spencer, Art History

ACADEMIC DEPARTMENT ASSOCIATE
- Susie Zimmer
ART 241 Graphic Design I 3 cr.

Choose 3 Credits from 3-D Studio Electives
ART 227 Introduction to Ceramics 3 cr.
ART 229 Introduction to Glass 3 cr.
ART 230 Cold Glass

Required Supporting Course
ART 100 Introduction to Art (3 Credits count in General Education)

* indicates prerequisite: junior standing or higher

Graphic Design
Graphic Design Minor (24 credits)
All classes are 3 credits unless otherwise specified.

Required Supporting Course (3 credits)
University general requirement. Credits not included in minor credit count.
ART 100 Introduction to Visual Art (Section 6)

Core Requirements (12 credits)
ART 121 Design Foundation
ART 131 Drawing I
ART 132 Drawing II
ART 308 History of Design

Required Graphic Design Courses (9 credits)
ART 241 Graphic Design I
ART 242 Design Studio I
ART 243 Typography I

Elective (3 credits)
Select from the following:
ART 227 Introduction to Ceramics
ART 229 Introduction to Glass
ART 230 Cold Glass
ART 235 Introduction to Photography
ART 236 Introduction to Printmaking
ART 238 Introduction to Painting
Asian Studies Minor

Asian Studies Minor: 24 total credits

Required Core Courses: 15 cr. hrs.
CHIN 102 Beginning Chinese II or JAPN 102 Beginning Japanese II 4 cr.
CHIN 201 Intermediate Chinese I or JAPN 201 Intermediate Japanese I 4 cr.
CHIN 202 Intermediate Chinese II or JAPN 202 Intermediate Japanese II 4 cr.
HIST 201 Introduction to Asian Civilization 3 cr. (GP)

Elective Courses – Select any three courses: 9 cr. hrs.
ART 291 Asian Art History 3 cr. (GP)
ENGL 317 / FILM 317 Modern East Asian Literature and Cinema 3 cr. (GP)
GEOG 344 Asia and Oceana 3 cr. (GP)
HIST 336 Traditional East Asia Prehistory-1800 3 cr.
HIST 334 Modern China 3 cr.
HIST 335 Modern Japan 3 cr.
HIST 333 Silk, Spice, and Silver: The Making of the Global Exchange System to 1800 3 cr. (GP, MD)
MNGT 355 International Business 3 cr.
PHIL 245 Eastern Religions and Islam 3 cr. (GP)
MKTG 355 International Marketing 3 cr.
HIST 371 Study Tour Research – China/Japan Study Tour 3 cr.

General Education

Required Supporting Course: 4 cr. hrs.
CHIN 101 Beginning Chinese I
or JAPN 101 Beginning Japanese I 4 cr.

Department of Modern Language
284 Kleinpell Fine Arts
715-425-3121
www.uwrf.edu/MODL/

• Marshall Toman, Chair
• Cecilia Bustamante
• Rebecca Raham
• Magara Maeda
• Kaishan Kong
• Julie Kovacic
• Daniela Goldfine
• Erin Russ

Emeriti:
• Kristine Butler
• Peter Johanssen
• Terrence Mannetter
• Sandra Soares
Biology Major
Biology Major - Liberal Arts and Education
Major requirements 44 Total Credits

Biology Options:

## General Biology

**General Biology Option**

**BIOL Core and Elective Courses = 44 cr.**

**Required core courses (26-27 cr.)**

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 110</td>
<td>1 cr.</td>
</tr>
<tr>
<td>BIOL 103</td>
<td>3 cr.</td>
</tr>
<tr>
<td>BIOL 160</td>
<td>2 cr. or BIOL 150, Gen. Biology, 3 cr.</td>
</tr>
<tr>
<td>BIOL 210</td>
<td>3 cr.</td>
</tr>
<tr>
<td>BIOL 230</td>
<td>3 cr.</td>
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<tr>
<td>BIOL 240</td>
<td>3 cr.</td>
</tr>
<tr>
<td>BIOL 324</td>
<td>4 cr.</td>
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<tr>
<td>BIOL 360</td>
<td>3 cr.</td>
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<tr>
<td>BIOL 355</td>
<td>3 cr.</td>
</tr>
</tbody>
</table>

**Electives courses (17-18 cr. from the following to reach a total of 44 cr.)**

Recommended Electives: (not a complete list)

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 195</td>
<td>3 cr.</td>
</tr>
<tr>
<td>BIOL 243</td>
<td>2 cr.</td>
</tr>
<tr>
<td>BIOL 295</td>
<td>2 cr.</td>
</tr>
<tr>
<td>BIOL 308</td>
<td>3 cr.</td>
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<tr>
<td>BIOL 307</td>
<td>2 cr.</td>
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<tr>
<td>BIOL 310</td>
<td>3 cr.</td>
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<tr>
<td>BIOL 314</td>
<td>3 cr.</td>
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<tr>
<td>BIOL 320</td>
<td>3 cr.</td>
</tr>
<tr>
<td>BIOL 325</td>
<td>2 cr.</td>
</tr>
<tr>
<td>BIOL 341</td>
<td>4 cr.</td>
</tr>
<tr>
<td>BIOL 342</td>
<td>4 cr.</td>
</tr>
<tr>
<td>BIOL 345</td>
<td>3 cr.</td>
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<tr>
<td>BIOL 351</td>
<td>3 cr.</td>
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<tr>
<td>BIOL 353</td>
<td>4 cr.</td>
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<tr>
<td>BIOL 355</td>
<td>3 cr.</td>
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<tr>
<td>BIOL 364</td>
<td>3 cr.</td>
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<tr>
<td>BIOL 365</td>
<td>3 cr.</td>
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<tr>
<td>BIOL 451</td>
<td>3 cr.</td>
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<tr>
<td>BIOL 452</td>
<td>3 cr.</td>
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<tr>
<td>BIOL 462</td>
<td>3 cr.</td>
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<tr>
<td>BIOL 464</td>
<td>3 cr.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Course</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIOL 379</td>
<td>3-6 cr.</td>
</tr>
<tr>
<td>BIOL 389</td>
<td>3 cr.</td>
</tr>
<tr>
<td>BIOL 436</td>
<td>3 cr.</td>
</tr>
<tr>
<td>BIOL 498</td>
<td>1-3 cr.</td>
</tr>
</tbody>
</table>

**Department of Biology**

414 Agricultural Science
715-425-3519
biology@uwrf.edu

J. Alfred Bonilla-Chair, Scott Ballantyne, Rick Ellingworth, John Ford, Joseph Gathman, Betsy Gerbec, Cheng-Chen Huang, Karen Klyczek, Timothy Lyden, Sami Nichols, Amber Qureshi, John Wheeler

The Biology Department offers a 44-credit major and a 22 credit minor for liberal arts and education majors. A degree with a Biology major also requires additional supporting courses in chemistry, mathematics, and physics. Three options are offered for the biology major:

1. **General Biology option**, for students who want to be broadly educated in biology or who are seeking education certification;
2. **Biomedical Sciences option**, appropriate for pre-professional majors and students planning to go into health, medicine laboratory research;
3. **Field Biology option**, for students interested in ecological research or careers in field biology. Including Natural Resource Management.

**General Education Requirements**

Courses in the major or required supporting courses may be double counted to satisfy the General Education science requirements. Therefore, the total General Education credit hour requirement is reduced by the courses that can be double-counted.

Note: Up to 6 elective credits may be taken from outside the Biology Department, by program exception.
Biomedical Sci.
Biomedical Sciences Option

**BIOL Core and Elective Courses = 44 cr.**

**Required core courses (28-29 cr.)**

- **BIOL 110** Freshman Colloquium, 1 cr.
- **BIOL 103** Biological Evolution, 3 cr.
- **BIOL 230** General Zoology, 3 cr.
- **BIOL 240** Cell & Molecular Biology, 3 cr.
- **BIOL 324** Microbiology, 4 cr.
- **BIOL 341** Anatomy & Physiology I, 4 cr.
- **BIOL 342** Anatomy & Physiology II, 4 cr.
- **BIOL 350** Genetics, 3 cr.

**Electives courses (15-16 cr. from the following to reach 44 total cr.)**

*Recommended Electives: (not a complete list)*

- **BIOL 195** Freshman Research Experience, 3 cr.
- **BIOL 210** Botany, 3 cr.
- **BIOL 245** Intro to Biol. Greek-Latin, 2 cr.
- **BIOL 295** Lab Research Experience, 2 cr.
- **BIOL 305** App. in Molecular Biology, 3 cr.
- **BIOL 307** Human Heredity, 2 cr.
- **BIOL 325** Medical Microbiology, 3 cr.
- **BIOL 345** Immunology, 3 cr.
- **BIOL 351** Epigenetics, 3 cr.
- **BIOL 353** Histology, 4 cr.
- **BIOL 356** Neurobiology, 3 cr.
- **BIOL 364** Developmental Biology, 3 cr.
- **BIOL 365** Cancer Biology, 3 cr.
- **BIOL 451** Molecular Biology, 4 cr.
- **BIOL 453** Virology, 3 cr.
- **BIOL 463** Animal Cell Culture, 3 cr.
- **BIOL 464** Stem Cells &Reg. Med., 3 cr.
- **BIOL 379** Internship, 3-6 cr.
- **BIOL 389** Special Topics in Biology, 3 cr.
- **BIOL 495** Undergraduate Research, 3 cr.
- **BIOL 499** Independent Study, 1-3 cr.

**Chemistry supporting courses (10- cr.): 1 year of CHEM**

- **CHEM 111** General Chemistry I, 4 cr.
  - **CHEM 116** General Chemistry Lab I, 1 cr.
- **CHEM 112** General Chemistry II, 4 cr.
  - **CHEM 117** General Chemistry Lab II, 1 cr. or **CHEM 130** Intro. to Organic Chemistry, 5 cr.
- **CHEM 233** Foundations of Organic Chem., 5 cr.

**Additional supporting courses (11-12 cr.):**

- **PHYS 121** Algebra-based Physics, 5 cr. or **131** calculus-based Physics, 5 cr.
- **MATH 147** Algebra & Trigonometry, 3 cr. or **149** Precalculus, 4 cr.
- **MATH 231** Biostatistics, 3 cr. or **ANSC 341** Biometrics, 3 cr.
Field Biology
Field Biology Option

BIOL Core and Elective Courses = 44 cr.
Required core courses (22-23 cr.) - 8 courses

BIOL 110  Freshman Colloquium, 1 cr.
BIOL 103  Biological Evolution, 3 cr.
BIOL 210  Botany, 3 cr.
BIOL 230  General Zoology, 3 cr.
BIOL 296  Field Research Experience, 2 cr.
BIOL 324  Microbiology, 4 cr.
BIOL 360  Ecology, 3 cr.

Electives courses (21-22 cr. from the following to reach a total of 44 cr.)
Recommended Electives: (not a complete list)

BIOL 195  Freshman Research Experience, 3 cr.
BIOL 240  Cell & Molecular Biology, 3 cr.
BIOL 243  Intro. to Biol. Greek-Latin, 2 cr.
BIOL 305  App. in Molecular Biology, 3 cr.
BIOL 310  Identification of Plants, 3 cr.
BIOL 314  Plant Pathology, 3 cr.
BIOL 320  Plant Physiology, 3 cr.
BIOL 333  Entomology, 3 cr.
BIOL 344  Wildlife Biology, 4 cr.
BIOL 354  Freshwater Biology, 3 cr.
BIOL 434  Ichthyology, 3 cr.
BIOL 444  Ornithology, 3 cr.

BIOL 379  Internship, 3-6 cr.
BIOL 495  Undergraduate Research, 3 cr.
BIOL 499  Independent Study, 1-3 cr.

Education
Biology with Broad Field Science Education Option

Required General Science Core:

BIOL 150  General Biology 3 cr.
or
BIOL 160  General Biology - Freshmen Research Focus 4 cr.
CHEM 111  General Chemistry 4 cr.
CHEM 116  General Chemistry Laboratory I 1 cr.
CHEM 112  General Chemistry II 4 cr.
CHEM 117  General Chemistry II Laboratory 1 cr.
PHYS 117  Basic Astronomy 3 cr.

Select on of the following course sequences
PHYS 121  Algebra-Based Physics I 5 cr.
PHYS 122 Algebra-Based Physics II 5 cr.
OR
PHYS 131 Calculus-Based Physics I 5 cr.
PHYS 132 Calculus-Based Physics II 5 cr.

Biology Core:

BIOL 110 Freshman Colloquium 1 cr.
BIOL 210 General Botany 3 cr.
BIOL 230 General Zoology 3 cr.
BIOL 240 Cell & Molecular Biology 3 cr.
BIOL 350 Genetics & Evolution 3 cr.
BIOL 360 Ecology 3 cr.
BIOL 471 Lab Experiences 1 cr.

Advanced Biology Electives:
Choose 14 credits from the following courses:

BIOL 243, BIOL 295, BIOL 296, BIOL 305, BIOL 307, BIOL 310, BIOL 324, BIOL 333, BIOL 341,
BIOL 342, BIOL 344, BIOL 345, BIOL 351, BIOL 353, BIOL 354, BIOL 364, BIOL 434, BIOL 444,
BIOL 451, BIOL 453, BIOL 481, BIOL 490

Required Supporting Courses
Choose one of the following course sequences

GEOL 269 Environmental Geology 3 cr.
GEOL 102 Introduction to Geology Laboratory 1 cr.
ESM 302 Broadfield Science Environmental Education Lab 1 cr.
OR
ESM 300 Environmental Education 3 cr.
GEOL 101 Introduction to Geology 3 cr.
GEOL 102 Introduction to Geology Laboratory 1 cr.
OR
ESM 300 Environmental Education 3 cr.
GEOL 269 Environmental Geology 3 cr.
GEOL 102 Introduction to Geology Laboratory 1 cr.

Earth and Space Science License (optional)
GEOG 212 Weather and Climate 3 cr.

Select two of the following courses:
GEOL 150 Geological Perspectives of Global Change 3 cr.
PHYS 318 Astrophysics 3 cr.
GEOL 305 Geology of the Planets 3 cr.
GEOL 441 Introduction to Geophysics 3 cr.

Recommended Supplemental Coursework:
GEOL 115 Oceanography 4 cr.
ESM 360 Hydrology & Water Quality 4 cr.

Required Supporting Courses: 21 cr. hrs.
Required for all options in the biology major.
Some professional schools and graduate programs may require additional credits in Chemistry,
Math and/or Physics; consult your adviser.

Chemistry supporting courses (10- cr.): 1 year of CHEM
CHEM 111 General Chemistry I, 4 cr.
  + CHEM 116 General Chemistry Lab I, 1 cr.
CHEM 112 General Chemistry II, 4 cr.
  + CHEM 117 General Chemistry Lab II, 1 cr. or CHEM 130 Intro. to Organic Chemistry, 5 cr.

Additional supporting courses (11-12 cr.):
PHYS 121 Algebra-based Physics, 5 cr. or 131 calculus-based Physics, 5 cr.
MATH 147 Algebra & Trigonometry, 3 cr. or 149 Precalculus, 4 cr.
MATH 231 Biostatistics, 3 cr. or ANSC 341 Biometrics, 3 cr.

Education majors take:

Also, see Physical Science Major and Broadfield Science Licensure
Biology Minor

Minor Requirements 22 Total Credits

Required Courses:
BIOL 150 General Biology 3 cr.

Liberal Arts majors take:
BIOL 210 General Botany or BIOL 230 General Zoology 3 cr.

Directed Electives: 16 cr. hrs.
Choose from any Biology courses except BIOL 100, BIOL 253, BIOL 308.
At least one course must be at the 300 level or above.

Education majors take:
BIOL 210 General Botany 3 cr.
BIOL 230 General Zoology 3 cr.
BIOL 240 Cell and Molecular Biology 3 cr.
BIOL 350 Genetics and Evolution (writing intensive) 3 cr.
BIOL 360 Ecology (writing intensive) 3 cr.

Directed Electives: 4 cr. hrs.
Choose from any Biology courses except BIOL 100, BIOL 253, BIOL 308.
Biotechnology Major

Major Requirements: 55-56 Total Credits

Core

Biotechnology

Biotechnology Core: 40-41 cr. hrs.

- AFES 222 Introduction to Biotechnology 2 cr.
- BIOL 150 General Biology 3 cr.
- BIOL 240 Cell and Molecular Biology 3 cr.
- BIOL 324 Microbiology 4 cr.
- BIOL 350 Genetics and Evolution (writing intensive) 3 cr.
  or ANSC 257 Genetics 3 cr.
- BIOL 451 Molecular Biology 4 cr.
- BIOT 280 Sophomore Seminar 0.5 cr.
- BIOT 380 Junior Seminar 0.5 cr.
- BIOT 480 Biotech Seminar 1 cr.
- CHEM 231 Organic Chemistry I 3 cr.
- CHEM 232 Organic Chemistry II 3 cr.
  or CHEM 246 Synthetic & Analytical Techniques in Organic Chemistry I 2 cr.
  or CHEM 237 Organic Chemistry Lab II 1 cr.
  or CHEM 247 Synthetic & Analytical Techniques in Organic Chemistry II 1 cr.
- CHEM 355 Separation Science Laboratory 1 cr.
- CHEM 361 Biochemistry I 3 cr.
- CHEM 362 Biochemistry II 3 cr.
- CHEM 366 Biochemistry Lab 1 cr.
- FDSC 460 Fermentation Technology 3 cr.
  or HORT 369 Plant Tissue Culture 3 cr.
  or BIOL 463 Animal Cell Culture 3 cr.

Electives

Biotechnology

Biotechnology Electives: 6 cr. hrs.

Choose at least six credits from the following additional courses to obtain additional training in methods and content particularly relevant to biotechnology. Fermentation Technology, Animal Cell Culture or Plant Tissue Culture may be chosen as electives after one of the courses is completed as a core course (no double counting as core and elective).

- BIOL 345 Immunology 3 cr.
- BIOL 453 Virology 3 cr.
- BIOT 373 / CSIS 373 Bioinformatics 3 cr.
- BIOT 295 Biotechnology Lab Research 1 cr.
- BIOT 379 Biotechnology Internship 1-4 cr.
- BIOT 495 Biotechnology Thesis 1-3 cr.
- FDSC 335 Food Microbiology 4 cr.
- FDSC 460 Fermentation Technology 3 cr.
- HORT 369 Plant Tissue Culture 3 cr.
- BIOL 463 Animal Cell Culture 3 cr.

Specialization

Biotechnology

Specialization Area: 9 cr. hrs.

In consultation with a biotechnology faculty advisor, the student will develop a plan that includes at least 9 additional credits of specialization. Up to four credits may include an internship in the specialization area. The total number of internship credits distributed between the Biotechnology

Interdisciplinary Program

261 Centennial Science Hall
715-425-3577
www.uwrf.edu/BIOT

Karl Peterson-Director

The Biotechnology major is an interdisciplinary program that is focused on the molecular basis of life processes and the techniques utilized to both study and control these processes under in vivo and in vitro conditions. The Biotechnology curriculum draws upon the expertise and course offerings of the participating departments: Biology, Chemistry, Animal and Food Science, and Plant and Earth Science. The Biotechnology major is designed to provide those students who are interested in pursuing careers at the interface of biology and chemistry with the academic background required to either secure entry level positions in the biotechnology industry or to continue their education in graduate or professional schools. A student may elect to complete a B.S. degree in Biotechnology in either the College of Arts and Sciences, 715-425-3777, or the College of Agriculture, Food and Environmental Sciences 715-425-3841.

General Education Requirements

BA and BS Liberal Arts majors as listed.
BS Agriculture, Food and Environmental Sciences majors as listed.

Courses in the major or required supporting courses may be double counted to satisfy the General Education science requirements. Therefore, the total General Education credit hour requirement is reduced by the courses that can be double-counted.
Electives and Specialization Area may not exceed 4 credits. The plan will be submitted to the Biotechnology Program Director by the end of the first semester of the junior year for recording and approval. The senior seminar should focus on a research project the student worked on or a topic intimately related to the area of specialization.

Some possible specialization areas/emphases might include:
Production Animal Biotechnology
Production Crop Biotechnology
Business/Management
Computational Biotechnology/Bioinformatics
Criminal Justice/Forensic Biotechnology
Environmental Biotechnology
Food Science Biotechnology
Industrial Biotechnology
Materials Science Biotechnology
Medical Biotechnology
Pharmaceutical Biotechnology
Veterinary Medical Biotechnology

**Supporting Courses**

**Biotechnology**

**Required Supporting Courses 18-20 cr. hrs.**
MATH 166 Calculus I 4 cr.
or ANSC 341 Biometrics 3 cr.
or MATH 226 Fundamentals of Statistics
CHEM 120 Introduction to General Chemistry 6 cr.
or CHEM 121 General Chemistry I 5 cr.
and CHEM 122 General Chemistry II 5 cr.

**Either sequence A or B below:**

**A.** PHYS 151 Algebra-Based Physics I 4 cr.
PHYS 152 Algebra-Based Physics II 4 cr.
PHYS 156 Algebra-Based Physics Laboratory I 1 cr.
PHYS 157 Algebra-Based Physics Laboratory II 1 cr.

**B.** PHYS 161 Calculus-Based Physics I 4 cr.
PHYS 162 Calculus-Based Physics II 4 cr.
PHYS 166 Calculus-Based Laboratory I 1 cr.
PHYS 167 Calculus-Based Laboratory II 1 cr.
Broad Field Science Licensure

Students desiring licensure to teach science at the early adolescence through adolescence level must complete the Broad Field Science major. The program encompasses biology, chemistry, and physics, and leads to certification in secondary or middle school education. In addition to science courses, students must complete professional education courses to earn teaching licensure.

A person with a broad field science (BFS) license may teach any science class, middle-school level through grade 10, and any basic science class in grades 11-12 which is not a college-preparatory course, advanced placement (AP) course, or an elective course with more depth of content than a basic course. However, graduates may teach advanced courses in their science major (Biology, Chemistry or Physics).

Students interested in certification in these programs should consult the Secondary Education Handbook for Undergraduates at [www.uwrf.edu/CEPS/](http://www.uwrf.edu/CEPS/) for the detailed requirements for various levels of certification in Wisconsin.

### Biology

Broad Field Science Licensure: Biology

**Professional Education Required Courses:**
- TED 100 - Intro to Education (3 credits)
- TED 212 - Educational Psychology: Middle & Secondary Education (5)
- TED 252 - Foundations of Multicultural Education (3)
- TED 414 - Development of the Transescent (4)
- SPED 330 - Introduction to Special Education (3)
- TED 434 - Techniques in Science (3)
- TED 462 - Content Area Literacy in Middle & Secondary Science (3)
- TED 465 - Secondary Science Classroom Management Strategies (3)
- TED 420 - School & Society (3)
- TED 473 - Student Teaching: Middle School
- TED 474 - Student Teaching: Secondary Education

**Broadfield Science Core Required Courses:**
- BIOL 150 - General Biology (3 credits)
  or BIOL 160 - General Biology Freshman Research Focus (4)
- CHEM 121 - General Chemistry I (5)
  or CHEM 120 - Introduction to General Chemistry (6)
- CHEM 122 - General Chemistry II (5)
- PHYS 117 - Basic Astronomy (3)
- PHYS 121 - Algebra-Based Physics I (5) & PHYS 122 – Algebra-Based Physics II (5)
  or PHYS 131 - Calculus-Based Physics I (5) & PHYS 132 - Calculus-Based Physics II (5)

**Required Supporting Courses**
Choose one of the following sequences:
- GEOL 269 - Environmental Geology (3), GEOL 102 -Introduction to Geology Laboratory (1), ESM 302 - Broadfield Science Environmental Education Lab (1)
  or
- ESM 300 - Environmental Education (3), GEOL 101 - Introduction to Geology (3), GEOL 102 -Introduction to Geology Laboratory (1)
  or
- ESM 300 - Environmental Education (3), GEOL 269 - Environmental Geology (3), GEOL 102 -Introduction to Geology Laboratory (1)

**Biology Core Required Courses:**
- BIOL 110 - Freshman Colloquium (1)
- BIOL 210 - General Botany (3)
- BIOL 230 - General Zoology (3)
- BIOL 240 - Cell & Molecular Biology (3)
- BIOL 350 - Genetics & Evolution (3)
- BIOL 360 - Ecology (3)
BIOL 471 - Lab Experiences (3)

Advanced Biology Electives
Choose 14 credits from:

Chemistry

Broad Field Science Licensure: Chemistry

BIOL 150 General Biology 3 cr.
BIOL 210 General Botany
or BIOL 230 General Zoology
or BIOL 240 Cell and Molecular Biology 3 cr.
CHEM 121 General Chemistry I 5 cr.
or CHEM 120 Introduction to General Chemistry 6 cr.
CHEM 122 General Chemistry II 5 cr.
ESM 302 Environmental Education Lab 1 cr.
GEOL 102 Introductory Geology Lab 1 cr.
PHYS 117 Astronomy 3 cr.

PHYS 121 Algebra-Based Physics I 4 cr.
PHYS 122 Algebra-Based Physics II 4 cr.
PHYS 131 Calculus-Based Physics 1 cr.
PHYS 132 Calculus-Based Physics II 1 cr.

CHEM 231 Organic Chemistry I 3 cr.
CHEM 236 Organic Chemistry Lab I 1 cr.
CHEM 232 Organic Chemistry II 3 cr.
CHEM 237 Organic Chemistry Lab II 1 cr.
CHEM 250 Foundations of Analytical Chemistry 4 cr.
CHEM 361 Biochemistry I 3 cr.
CHEM 340 Physical Chemistry of Biological Systems 3 cr.
CHEM 322 Inorganic Chemistry 4 cr.
CHEM 480 Chemical Communications and Research 1 cr.
CHEM 261 Laboratory Safety 2 cr.

Advanced Lab and Research Series: (choose one)
CHEM 355 Separation Science Laboratory 1 cr.
CHEM 356 Chemical Instrumentation Lab 1 cr.
CHEM 366 Biochemistry Laboratory 1 cr.
CHEM 495 Undergraduate Research 1 cr.

Required Supporting Coursework:
GEOL 269 Environmental Geology (counted in general education) 0 cr.

Earth and Space Science Licensing:
An Earth and Space Science license will be earned upon completion of the coursework listed below. This additional concentration is based on 16-19 total credits of earth and space science coursework. Overlap with required and elective coursework in the major will allow for this add-on license to be completed with an additional 5-11 credits.

GEOL 269 Environmental Geology 3 cr. (completed in major)
GEOL 102 Introductory Geology Lab 1 cr. (completed in major)
ESM 302 Environmental Education Lab 1 cr. (completed in major)
PHYS 117 Astronomy 3 cr. (completed in major)
GEOL 330 Meteorology 3 cr.

Choose 2 of the following courses:
GEOL 150 Historical Geology 4 cr.
PHYS 318 Astrophysics 3 cr. (possible elective in major)
GEOL 305 Geology of the Planets 2 cr.
GEOL 441 Introduction to Geophysics 4 cr.

Recommended Supplemental Coursework:
GEOL 202 Oceanography 3 cr.
ESM 360 Hydrology and Water Quality 4 cr.

Physics

Broadfield Science Licensure: Physics 57-58 cr. hrs.
BIOL 150 General Biology 3 cr.
BIOL 210 General Botany
or BIOL 230 General Zoology
or BIOL 240 Cell and Molecular Biology 3 cr.
CHEM 121 General Chemistry I 5 cr.
or CHEM 120 Introduction to General Chemistry 6 cr.
CHEM 122 General Chemistry II 5 cr.
ESM 302 Environmental Education Lab 1 cr.
GEOL 102 Introductory Geology Lab 1 cr.
PHYS 117 Astronomy 3 cr.

PHYS 121 Algebra-Based Physics I 5 cr.
PHYS 122 Algebra-Based Physics II 5 cr.
PHYS 131 Calculus-Based Physics I 5 cr.
PHYS 132 Calculus-Based Physics II 5 cr.

MATH 167 Calculus II 4 cr.
PHYS 264 Modern Physics 4 cr.
PHYS 204 Intermediate Physics Lab 1 cr.
PHYS 311 Electronics: Circuits and Devices 4 cr.
PHYS 318 Astrophysics 3 cr.
PHYS 485 Senior Seminar 1 cr.
PHYS 362 Mathematics of Physics and Engineering II 3 cr.

Choose 6 credits from the following electives:
PHYS 220 Science of Light 3 cr.
PHYS 250 Statics 3 cr.
PHYS 312 Electronics: Linear Integrated Circuits 4 cr.
PHYS 313 Digital Electronics 4 cr.
PHYS 331 Curriculum Physics 3 cr.

Required Supporting Coursework:
GEOL 269 Environmental Geology (counted in general ed) (0 cr.)

Earth and Space Science Licensing

An Earth and Space Science license will be earned upon completion of the coursework listed below. This additional concentration is based on 16-19 total credits of earth and space science coursework. Overlap with required coursework in the major will allow for this add-on license to be completed with an additional 5-7 credits.
GEOL 269 Environmental Geology 3 cr. (completed in major)
GEOL 102 Introductory Geology Lab 1 cr. (completed in major)
ESM 302 Environmental Education Lab 1 cr. (completed in major)
PHYS 117 Astronomy 3 cr. (completed in major)
GEOL 330 Meteorology 3 cr.

Choose 2 of the following courses:
GEOL 202 Oceanography 3 cr.
ESM 360 Hydrology and Water Quality 4 cr.
Broad Field Social Studies Major

History Emphasis Requirements: 33 credit hours

A. History core: three courses
   - HIST 102 History of the Modern World, 1500-Present
   - HIST 215 United States History to 1865
   - HIST 216 U.S. History from 1865

B. U.S. history (300-level or above): two courses
C. World history (300-level or above): two courses
D. Environmental history: HIST 365 American Environmental History
E. History elective (300-level or above): one course

F. Research and historiography: HIST 485 History Seminar

Social Studies Requirements: 24 credit hours

A. Social Studies core - 3 cr.
   - BFSS 200 Introduction to Social Science for Teachers

B. Social science distribution courses (non-history) - 12 cr.
   - SOCI 100 Introduction to Sociology
   - POLS 230 Introduction to Political Philosophy and Ideology or POLS 114 American Government and Politics
   - POLS 260 Introduction to International Relations (g)
   - ECON 201 Principles of Microeconomics or ECON 202 Principles of Macroeconomics

C. Social Science electives - 9 cr. (Students interested in teaching in Wisconsin should take all three elective courses from the same social science discipline: economics, political science, geography, psychology or sociology.)
   - Psychology: PSYC 201 Behavioral Statistics, PSYC 216 Research Methods, and another PSYCH course of your choice
   - Geography: GEOG 120 Human Geography and two other GEOG courses at the 200 or 300 level
   - Economics: ECON 201 Principles of Microeconomics, ECON 202 Principles of Macroeconomics and ECON 340 Contemporary International Trade

Education Requirements: 43 credit hours

A. Education - 18 cr.
   - TED 100 Introduction to Education
   - TED 212 Educational Psychology: Middle & Secondary Education
   - TED 414 Development of the Transcescent
   - TED 420 School & Society
   - SPED 330 Introduction to Special Education

B. Social Studies Methods Block - 13 cr. (You should take "block" classes in the fall semester of your senior year.)
   - TED 433 Techniques in Social Studies

General Education Requirements

Social and Behavioral Science: BS Education majors as listed.
C. **Student teaching** - 12 cr.
   - TED 472 Student Teaching - Initial
   - or
   - TED 479 K-12 Internship Teaching
   - or
   - TED 474 Student Teaching - COST

### General Education and University Requirements: 40 credit hours

**General Education Requirements:**

**A. GOAL 1 Communication** - 9 cr.
   - ENGL 100 Academic Reading/Writing
   - COMS 101 Fundamentals of Oral Communication
   - ENGL 200 Investigating Ideas: Reading, Writing, and the Disciplines

**B. GOAL 2** - 12 cr.
   - **Social and behavioral sciences** - 6 cr: HIST 101 Origins of Civilization and PSYC 101 General Psychology
   - **Humanities and fine arts** - 6 cr: ART 100 Intro to Visual Art or MUS 100 Understanding Music or DANC 100 Dance Appreciation (3 cr.); and ENGL 105 Literature and Human Experience or ENGL 106 Literature: Introduction to Fiction, Poetry, and Drama or ENGL 107 Heroes in Literature (3 cr.)

**C. GOAL 3 Math and science** - 9 cr.
   - MATH 126 Activities in Math
   - BIOL 100 Introduction to Biology
   - GEOG 110 Physical Environment: Patterns & Systems

**D. GOAL 5 Individual responsibility to self, society, world** - 4 cr.
   - **Individual responsibility to self, society, world**: PE 108 Health and Fitness for Life
   - **Ethical citizenship (EC)** - choose one course from this complete list

**University Requirements**

**A. American Cultural Diversity (ACD)** - 3 cr: TED 252 (3 cr.)

**B. Global Perspectives (GP)** - 3 cr: choose from: HIST 201 Intro. to Asian Civilization, HIST 202 Intro. to Latin American Civilizations, HIST 203 The Mediterranean: A Survey, or HIST 209 Intro. to African History

*Remember to periodically review your Degree Audit Report (DAR) in eSIS!*
Business Administration Major

Business Administration Major: 48-51 Total Credits

Lower Division 23 cr. hrs.
Required of all majors before enrolling in any upper level division courses.
CBE 100 First-Year Seminar: College of Business and Economics 2 cr.
COMS 101 Fundamentals of Oral Communication 3 cr. (double counts as GenEd) OR ENGL 266 Business Writing 3 cr.
ECON 201 Principles of Microeconomics 3 cr.
ECON 202 Principles of Macroeconomics 3 cr.
ACCT 231 Principles of Accounting I 3 cr.
ACCT 232 Principles of Accounting II 3 cr.
CSIS 215 Information Systems for Business Management 3 cr.
ECON 226 Introduction to Statistics 3 cr.
or MATH 226 Fundamentals of Statistics
BLAW 265 Business Law I 3 cr.

Upper Division 19 cr. hrs.
CBE 300 Professional Development 1 cr.
MNGT 300 Management and Organizational Behavior 3 cr.
MKTG 310 Principles of Marketing 3 cr.
FINC 345 Managerial Finance 3 cr.
ECON 326 Statistical Methods for Economics and Business 3 cr.
MNGT 361 Operations Management 3 cr.
MNGT 485 Strategic Management 3 cr.

Business Electives 6 cr. hrs.
Choose 6 credits of courses 300 level or higher from MKTG, MNGT or FINC.

Required Supporting Courses: 3-4 cr.
ECON 205 Quantitative Analysis 3 cr.
or MATH 156 Calculus for Business and Social Sciences 3 cr.
or MATH 166 Calculus I 4 cr.

Undergraduate Business Administration students may not transfer more than six credits of 300/400 level courses from non-AACSB accredited programs and institutions into the major.

Business Administration - Finance

Business Administration - Management

Business Administration - Marketing
Business Administration Minor

Prerequisites: ECON 201, ECON 202, and ECON 226 (or MATH 226)

Required Courses 21 cr. hrs.
ACCT 231 Principles of Accounting I 3 cr.
ACCT 232 Principles of Accounting II 3 cr.
CSIS 215 Information Systems for Business Management 3 cr.
BLAW 265 Business Law I 3 cr.
FINC 345 Managerial Finance 3 cr.
MNGT 300 Management and Organizational Behavior 3 cr.
MKTG 310 Principles of Marketing 3 cr.

Business Electives: 3 cr. hrs.
Courses 300 level or higher from MKTG, MNGT or FINC

Prior to taking the 300 level courses required in the Business Administration minor (FINC 345, MKTG 310, and MNGT 300), the following courses must first be completed: ACCT 231, ACCT 232, CSIS 215, ECON 201, ECON 202, and either MATH 226 or ECON 226. It is recommended that business minors complete at least Math 146 (College Algebra).
Broad Area Business Administration Major
(no minor required; must choose one of the options listed below)

- Finance
- Management
- Marketing

Undergraduate Business Administration students may not transfer more than six credits of 300/400 level courses from non-AACSB accredited programs and institutions into the major.

Dean's Office
College of Business and Economics
124 South Hall
715-425-3335

General Education Requirements
The General Education mathematics requirement for business majors can be met by taking ECON 205 Quantitative Analysis, MATH 156 Calculus for Business and Social Sciences, or MATH 166 Calculus I.

Admission Requirements
1. For all majors in the College of Business and Economics (CBE):
   Completion of at least 27 required general education credits with a minimum GPA of 2.25.

2. Additionally, the following must be completed, or in progress for completion, during the semester preceding admission.
   GPA of 2.50 in ACCT 231, ACCT 232; CBE 100; ECON 201; CSIS 215; ECON 205 or MATH 156 or MATH 166; ECON 226 or MATH 226; CSTA 116 or ENGL 266.
Chemistry Major

Chemistry

Track A Requirements: 56-59 cr. hrs.

CHEM 111 General Chemistry I 4 cr. and CHEM 116 General Chemistry I Lab 1 cr.
OR CHEM 121 General Chemistry I 5 cr.
OR CHEM 120 Introduction to General Chemistry 6 cr.
CHEM 112 General Chemistry II 4 cr. and CHEM 117 General Chemistry II Lab 1 cr.
OR CHEM 122 General Chemistry II 5 cr.
CHEM 231 Organic Chemistry I 3 cr.
CHEM 232 Organic Chemistry II 3 cr.
CHEM 236 Organic Chemistry Lab I 1 cr.
CHEM 237 Organic Chemistry Lab II 1 cr.
CHEM 250 Foundations of Analytical Chemistry 4 cr.
CHEM 261 Laboratory Safety 2 cr.
CHEM 322 Inorganic Chemistry 3 cr.
CHEM 325 Inorganic Chemistry Lab 1 cr.
CHEM 341 Chemical Thermodynamics and Kinetics (3 cr.) or CHEM 342 Molecular Structure and Spectroscopy 3 cr.
CHEM 360 Foundations of Biochemistry 4 cr. OR CHEM 361 Biochemistry I 3 cr.
CHEM 380 Chemistry Junior Seminar 1 cr.
CHEM 480 Chemical Communications and Research 1 cr.

BIOL 150 Introduction to Biology 3 cr. OR BIOL 160 General Biology - Freshman Research Focus 4 cr.

MATH 166 Calculus I 4 cr.
MATH 167 Calculus II 4 cr.
MATH elective 2 (3-4 cr.)

PHYS 121 Algebra-Based I Physics I 4 cr.
PHYS 122 Algebra-Based I Physics II 4 cr.
Or
PHYS 131 Calculus-Based Physics I 4 cr.
PHYS 132 Calculus-Based Physics II 4 cr.

Track A In-depth elective courses: 12 credits, including at least 6 lab credits, one of which must be CHEM 366 or CHEM 345.

CHEM 311 Polymer Chemistry 3 cr.
CHEM 316 Polymer Chemistry Lab 1 lab cr.
CHEM 333 Organic Synthesis 2 cr.
CHEM 334 Organic Synthesis Lab 2 lab cr.
CHEM 341 Chemical Thermodynamics and Kinetics 3 cr. or CHEM 342 Molecular Structure and Spectroscopy 3 cr.
CHEM 345 Physical Chemistry Laboratory 1 lab cr.
CHEM 355 Separation Science Laboratory 1 lab cr.
CHEM 356 Chemical Instrumentation Lab 1 lab cr.
CHEM 362 Biochemistry II 3 cr.
CHEM 366 Biochemistry Laboratory 1 lab cr.
CHEM 378 Semester Abroad 1-4 cr.; includes 1-4 cr. Lab
CHEM 379 Internship 1-4 cr.; includes 1-4 cr. lab
CHEM 461 Pharmacology 3 cr.
CHEM 489 Special Topics in Chemistry 1-4 cr.
CHEM 495 Undergraduate Research 1-3 cr.; includes 1-3 lab cr.

Department of Chemistry and Biotechnology

253 Centennial Science Hall
715-425-3523
www.uwrf.edu/CHEM/

Karl Peterson -Chair, Samuel Alvarado, Ross Jilk, Ekaterina Kadnikova, Michael Kahlow, Lisa Kroult, Daniel Marchand, Kevin McLaughlin, Barb Nielsen, Matt O'Reilly, Jamie Schneider, Kurt Torgersen

The Department of Chemistry and Biotechnology offers several options for chemistry majors, all of which are based on a core curriculum with additional requirements based on each option.

1. The Chemistry major is designed for students who desire a general education in chemistry as a background for careers in many fields such as polymer science, environmental analysis, industrial chemistry, materials science, or various fields related to medical science.

2. The Biochemistry option is designed for students who wish to pursue a career in biotechnology, the medical sciences or who desire a strong background in the chemistry of biological systems.

3. The Preprofessional option is a Biochemistry degree designed for students who wish to pursue professional degrees including medical school, veterinary school, pharmacy, or other medical or health related fields.

4. The education option chemistry major is designed for prospective secondary school teachers. The curriculum is planned so as to give the student (1) a broad general education, (2) specialized preparation in chemistry with a minor in a supporting field and (3) professional training necessary for effective teaching. Contact the Chemistry Department chair for further information.

Substitution of other courses for degree requirements is possible upon application and approval by the department. This is on a case-by-case basis and particularly may affect students who change to a chemistry major or who transfer to UWRF. Students should confer with their adviser and/or the department chair.
BIOL 451 5 Molecular Biology 4 cr.; includes 1 lab cr.
PHYS 465 5 Quantum Mechanics 4 cr.

**Track B Requirements: 56-59 cr.**
CHEM 130 Introduction to Organic Chemistry 5 cr.
CHEM 233 Foundations of Organic Chemistry 5 cr.
CHEM 240 Foundations of Inorganic Chemistry 4 cr.
CHEM 250 Foundations of Analytical Chemistry 4 cr.
CHEM 261 Laboratory Safety 2 cr.
CHEM 322 Inorganic Chemistry 3 cr.
CHEM 325 Inorganic Chemistry Laboratory 1 cr.
CHEM 333 Organic Synthesis 2 cr.
CHEM 334 Organic Synthesis Laboratory 2 cr.
CHEM 341 1 Chemical Thermodynamics and Kinetics 3 cr. or CHEM 342 1 Molecular Structure and Spectroscopy 3 cr.
CHEM 360 Foundations of Biochemistry 4 cr. OR 361 Biochemistry I 3 cr.
CHEM 380 Junior Seminar 1 cr.
CHEM 480 Chemical Communications and Research 1 cr.

BIOL 150 Introduction to Biology 3 cr. OR BIOL 160 General Biology - Freshman Research Focus 4 cr.

MATH 166 Calculus I 4 cr.
MATH 167 Calculus II 4 cr.
MATH elective 2 (3-4 cr.)

PHYS 121 Algebra-Based I Physics I 4 cr.
PHYS 122 Algebra-Based I Physics II 4 cr.
Or
PHYS 131 Calculus-Based Physics I 4 cr.
PHYS 132 Calculus-Based Physics II 4 cr.

**Track B In-depth elective courses: 12 credits, including at least 4 lab credits, one of which must be CHEM 366 or CHEM 345.**
CHEM 311 Polymer Chemistry 3 cr.
CHEM 316 Polymer Chemistry Lab 1 lab cr.
CHEM 341 1 Chemical Thermodynamics and Kinetics 3 cr. or CHEM 342 1 Molecular Structure and Spectroscopy 3 cr.
CHEM 345 Physical Chemistry Lab 1 lab cr.
CHEM 355 Separation Science Laboratory 1 lab cr.
CHEM 356 Chemical Instrumentation Lab (writing intensive) 1 lab cr.
CHEM 362 Biochemistry II 3 cr.
CHEM 366 Biochemistry Laboratory (writing intensive) 1 lab cr.
CHEM 378 3 Semester Abroad 1-4 cr.; includes 1-4 cr. Lab
CHEM 379 3 Internship 1-4 cr.; includes 1-4 cr. lab
CHEM 461 Pharmacology 3 cr.
CHEM 489 3 Special Topics in Chemistry 1-4 cr.
CHEM 495 4 Undergraduate Research 1-3 cr.; includes 1-3 lab cr.
BIOL 451 5 Molecular Biology 4 cr.; includes 1 lab cr.
PHYS 465 5 Quantum Mechanics 4 cr.

1. Both CHEM 341 and CHEM 342 are strongly recommended for students considering graduate education in chemistry.
2. Allowed Math electives include: MATH 236 Discrete Mathematics, MATH 256 Linear Algebra, MATH 326 Applied Statistics, MATH 346 Numerical Analysis, or PHYS 361 Mathematics of
Physics and Engineering.

3. CHEM 378, CHEM 379 and CHEM 489 could be worth 1-4 credits each for a combined maximum of 4 credits counting toward the in-depth electives. Actual credits will be determined based on department approval at the time of enrollment.

4. A maximum of 3 credits of CHEM 495 can count toward the in-depth electives.

5. A maximum of 4 credits of non-chemistry courses may count toward the in-depth electives.

Biochem.

Biochemistry

Track A Requirements: 71-73 cr. hrs.

CHEM 111 General Chemistry I 4 cr. and CHEM 116 General Chemistry I Lab 1 cr.
OR CHEM 121 General Chemistry I 5 cr.
OR CHEM 120 Introduction to General Chemistry 6 cr.
CHEM 112 General Chemistry II 4 cr. and CHEM 117 General Chemistry II Lab 1 cr.
OR CHEM 122 General Chemistry II 5 cr.
CHEM 231 Organic Chemistry I 3 cr.
CHEM 232 Organic Chemistry II 3 cr.
CHEM 236 Organic Chemistry Lab I 1 cr.
CHEM 237 Organic Chemistry Lab II 1 cr.
CHEM 250 Foundations of Analytical Chemistry 4 cr.
CHEM 261 Laboratory Safety 2 cr.
CHEM 322 Inorganic Chemistry 3 cr.
CHEM 325 Inorganic Chemistry Laboratory 1 cr.
CHEM 341 Chemical Thermodynamics and Kinetics 3 cr. or CHEM 342 Molecular Structure and Spectroscopy 3 cr.
CHEM 361 Biochemistry I 3 cr.
CHEM 362 Biochemistry II 3 cr.
CHEM 366 Biochemistry Laboratory 1 cr.
CHEM 380 Junior Chemistry Seminar 1 cr.
CHEM 480 Chemical Communications and Research 1 cr.

BIOL 150 Introduction to Biology 3 cr.
BIOL 240 Cell and Molecular Biology 3 cr.
BIOL 324 Microbiology 4 cr.
BIOL 350 Genetics and Evolution 3 cr.
BIOL 451 Molecular Biology 4 cr.

MATH 166 Calculus I 4 cr.
MATH 167 Calculus II 4 cr.

PHYS 131 Calculus Based Physics I 5 cr.
PHYS 132 Calculus Based Physics II 5 cr.
OR
PHYS 121 Algebra Based Physics I 5 cr.
PHYS 122 Algebra Based Physics II 5 cr.

Track A In-depth elective courses: A minimum of 4 lab credits, taken from

CHEM 316 Polymer Chemistry Laboratory 1 cr. (corequisite CHEM 311)
CHEM 334 Organic Synthesis Laboratory 2 cr. (corequisite CHEM 333)
CHEM 345 Physical Chemistry Laboratory 1 cr.
CHEM 355 Separation Science Laboratory 1 cr.
CHEM 356 Chemical Instrumentation Lab 1 cr.
CHEM 378 Semester Abroad 1-4 cr.
CHEM 379 Internship 1-4 cr.
CHEM 489 Special Topics in Chemistry 1-4 cr.
Track B Requirements: 70 cr.
CHEM 130 Introduction to Organic Chemistry 5 cr.
CHEM 233 Foundations of Organic Chemistry 5 cr.
CHEM 240 Foundations of Inorganic Chemistry 4 cr.
CHEM 250 Foundations of Analytical Chemistry 4 cr.
CHEM 261 Laboratory Safety 2 cr.
CHEM 322 Inorganic Chemistry 3 cr.
CHEM 325 Inorganic Chemistry Laboratory 1 cr.
CHEM 341¹ Chemical Thermodynamics and Kinetics 3 cr. or CHEM 342¹ Molecular Structure and Spectroscopy 3 cr.
CHEM 361 Biochemistry I 3 cr.
CHEM 362 Biochemistry II 3 cr.
CHEM 380 Junior Chemistry Seminar 1 cr.
CHEM 480 Chemical Communications and Research 1 cr.

BIOL 150 Introduction to Biology 3 cr.
BIOL 240 Cell and Molecular Biology 3 cr.
BIOL 324 Microbiology 4 cr.
BIOL 350 Genetics and Evolution 3 cr.
BIOL 451 Molecular Biology 4 cr.

MATH 166 Calculus I 4 cr.
MATH 167 Calculus II 4 cr.

PHYS 131 Calculus Based Physics I 5 cr.
PHYS 132 Calculus Based Physics II 5 cr.
Or
PHYS 121 Algebra Based Physics I 5 cr.
PHYS 122 Algebra Based Physics II 5 cr.

Track B In-depth elective courses: A minimum of 3 lab credits, taken from
CHEM 316 Polymer Chemistry Laboratory 1 cr. (corequisite CHEM 311)
CHEM 345 Physical Chemistry Laboratory 1 cr.
CHEM 355 Separation Science Laboratory 1 cr.
CHEM 356 Chemical Instrumentation Lab 1 cr.
CHEM 378² Semester Abroad 1-4 cr.
CHEM 379² Internship 1-4 cr.
CHEM 489² Special Topics in Chemistry 1-4 cr.
CHEM 495³ Undergraduate Research 1-3 cr.; includes 1-3 lab cr.

1. Both CHEM 341 and CHEM 342 are strongly recommended for students considering graduate education in chemistry. Both courses require MATH 167, and PHYS 152 or PHYS 162.
2. CHEM 378, CHEM 379 and CHEM 489 could be worth 1-4 credits each for a combined maximum of 4 credits counting toward the in-depth electives. Actual credits will be determined based on department approval at the time of enrollment.
3. A maximum of 3 credits of CHEM 495 can count toward the in-depth electives.

Preprof.
Biochemistry Preprofessional
Track A Requirements: 58-61 cr. hrs.
CHEM 111 General Chemistry I 4 cr. and CHEM 116 General Chemistry I Lab 1 cr.
OR CHEM 121 General Chemistry I 5 cr.
OR CHEM 120 Introduction to General Chemistry 6 cr.
CHEM 112 General Chemistry II 4 cr. and CHEM 117 General Chemistry II Lab 1 cr.
OR CHEM 122 General Chemistry II 5 cr.
CHEM 231 Organic Chemistry I 3 cr.
CHEM 232 Organic Chemistry II 3 cr.
CHEM 236 Organic Chemistry Lab I 1 cr.
CHEM 237 Organic Chemistry Lab II 1 cr.
CHEM 250 Foundations of Analytical Chemistry 4 cr.
CHEM 261 Laboratory Safety 2 cr.
CHEM 322 Inorganic Chemistry 3 cr.
CHEM 325 Inorganic Chemistry Laboratory 1 cr.
CHEM 340 Chemical Thermodynamics and Kinetics (3 cr.)
CHEM 361 Biochemistry I 3 cr.
CHEM 362 Biochemistry II 3 cr.
CHEM 366 Biochemistry Laboratory 1 cr.
CHEM 380 Junior Chemistry Seminar 1 cr.
CHEM 480 Chemical Communications and Research (writing intensive) 1 cr.

BIOL 150 General Biology 3 cr. OR BIOL 160 General Biology - Freshman Research Focus 3 cr.

MATH 166 Calculus I 4 cr.
MATH elective 2 3-4 cr.

PHYS 121 Algebra Based I Physics I 5 cr.
PHYS 122 Algebra Based I Physics II 5 cr.
OR
PHYS 131 Calculus Based Physics I 5 cr.
PHYS 132 Calculus Based Physics II 5 cr.

**Track A In-depth elective courses:** Eight credits minimum including at least 3 lab credits, chosen from
CHEM 311 Polymer Chemistry 3 cr.
CHEM 316 Polymer Chemistry Laboratory 1 cr.
CHEM 333 Organic Synthesis 2 cr.
CHEM 334 Organic Synthesis Laboratory 2 cr.
CHEM 341 Chemical Thermodynamics and Kinetics 3 cr.
CHEM 342 Molecular Structure and Spectroscopy 3 cr.
CHEM 345 Physical Chemistry Laboratory 1 cr.
CHEM 355 Separation Science Laboratory 1 lab cr.
CHEM 356 Chemical Instrumentation Lab (writing intensive) 1 lab cr.
CHEM 3782 Semester Abroad 1-4 cr.; includes 1-4 cr. Lab
CHEM 3792 Internship 1-4 cr.; includes 1-4 cr. lab
CHEM 461 Pharmacology 3 cr.
CHEM 4892 Special Topics in Chemistry 1-4 cr.
CHEM 4953 Undergraduate Research 1-3 cr.; includes 1-3 lab cr.
BIOL 3504 Genetics and Evolution 3 cr.
BIOL 4514 Molecular Biology 4 cr.; includes 1 lab cr.

**Track B Requirements: 52-54 cr.**
CHEM 130 Introduction to Organic Chemistry 5 cr.
CHEM 233 Foundations of Organic Chemistry 5 cr.
CHEM 240 Foundations of Inorganic Chemistry 4 cr.
CHEM 250 Foundations of Analytical Chemistry 4 cr.
CHEM 261 Laboratory Safety 2 cr.
CHEM 322 Inorganic Chemistry 3 cr.
CHEM 325 Inorganic Chemistry Laboratory 1 cr.
CHEM 340 Chemical Thermodynamics and Kinetics (3 cr.)
CHEM 361 Biochemistry I 3 cr.
CHEM 362 Biochemistry II 3 cr.
CHEM 366 Biochemistry Laboratory 1 cr.
CHEM 380 Junior Chemistry Seminar 1 cr.
CHEM 480 Chemical Communications and Research (writing intensive) 1 cr.

BIOL 150 General Biology 3 cr. OR BIOL 160 General Biology - Freshman Research Focus 3 cr.

MATH 166 Calculus I 4 cr.
MATH elective 2 3-4 cr.

PHYS 121 Algebra Based I Physics I 5 cr.
PHYS 122 Algebra Based I Physics II 5 cr.
OR
PHYS 131 Calculus Based Physics I 5 cr.
PHYS 132 Calculus Based Physics II 5 cr.

Track B In-depth elective courses: 13 credits minimum with at least 3 lab credits, chosen from
CHEM 311 Polymer Chemistry 3 cr.
CHEM 316 Polymer Chemistry Laboratory 1 cr.
CHEM 333 Organic Synthesis 2 cr.
CHEM 334 Organic Synthesis Laboratory 2 cr.
CHEM 341 Chemical Thermodynamics and Kinetics 3 cr.
CHEM 342 Molecular Structure and Spectroscopy 3 cr.
CHEM 345 Physical Chemistry Laboratory 1 cr.
CHEM 355 Separation Science Laboratory 1 lab cr.
CHEM 356 Chemical Instrumentation Lab (writing intensive) 1 lab cr.
CHEM 3782 Semester Abroad 1-4 cr.; includes 1-4 cr. Lab
CHEM 3792 Internship 1-4 cr.; includes 1-4 cr. Lab
CHEM 461 Pharmacology 3 cr.
CHEM 4892 Special Topics in Chemistry 1-4 cr.

CHEM 378, CHEM 379 and CHEM 489 could be worth 1-4 credits each for a combined maximum of 4 credits counting toward the in-depth electives. Actual credits will be determined based on department approval at the time of enrollment.
2. A maximum of 3 credits of CHEM 495 can count toward the in-depth electives.
3. A maximum of 4 credits of non-chemistry courses may count toward the in-depth electives.

1. Math electives could include: MATH 226 Fundamentals of Statistics, MATH 167Calculus II, MATH 236 Discrete Mathematics, MATH 256 Linear Algebra, or MATH 326 Applied Statistics
2. CHEM 378, CHEM 379 and CHEM 489 could be worth 1-4 credits each for a combined maximum of 4 credits counting toward the in-depth electives. Actual credits will be determined based on department approval at the time of enrollment.

Education
Chemistry Major-Education

Major Requirements - Secondary Education 35-36 Total Credits
Core Requirements: 22-24 cr. hrs.
Required Supporting Courses: 21 cr. hrs.(not counted in total for major)

Secondary Education Option
Required Courses: 12-14 cr. hrs.

CHEM 236 Organic Chemistry Lab I 1 cr. (Core A only)
CHEM 237 Organic Chemistry Lab II 1 cr. (Core A only)
CHEM 341 Chemical Thermodynamics and Kinetics (3 cr.)
or CHEM 342 Molecular Structure and Spectroscopy 3 cr.
CHEM 356 Chemical Instrumentation Lab (writing intensive) 1 lab cr.
CHEM 401 Advanced Chemistry Lab I (writing intensive) 1 lab cr.
CHEM 402 Advanced Chemistry Lab II (writing intensive) 1 lab cr.
CHEM 422 Advanced Inorganic Chemistry 3 cr.

Physical Science Option

Broadfield Science Licensure

Dual Degree

Chemistry-Dual Degree (Engineering)

This major is awarded jointly with a B.S. in engineering after the student has successfully completed a three-year program at UW-River Falls with a minimum grade point average of 3.0 and a two-year program at either UW-Madison or the University of Minnesota.

Required Courses 29-30 cr. hrs.
CHEM 121 General Chemistry I 5 cr. or CHEM 120 Introduction to General Chemistry 6 cr.
CHEM 122 General Chemistry II 5 cr.
CHEM 231 Organic Chemistry I 3 cr.
CHEM 232 Organic Chemistry II 3 cr.
CHEM 246 Synthetic and Analytical Techniques in Organic Chem I 2 cr.
CHEM 247 Synthetic and Analytical Techniques in Organic Chem II 1 cr.
CHEM 251 Analytical Chemistry 2 cr.
CHEM 256 Analytical Chemistry Lab 1 cr.
CHEM 341 Chemical Thermodynamics and Kinetics (3 cr.)
or CHEM 342 Molecular Structure and Spectroscopy 3 cr.
CHEM 355 Separation Science Laboratory 1 cr.

Credits transferred from Engineering School 30 cr. hrs.
Required supporting courses at UWRF 34 cr. hrs.
PHYS 131 Calculus-Based Physics I 4 cr.
PHYS 132 Calculus-Based Physics II 4 cr.
PHYS 166 Calculus-Based Physics Laboratory I 1 cr.
PHYS 167 Calculus-Based Physics Laboratory II 1 cr.
PHYS 211 Scientific Programming 3 cr.
PHYS 264 Modern Physics 4 cr.
MATH 166 Calculus I 4 cr.
MATH 167 Calculus II 4 cr.
MATH 256 Linear Algebra 3 cr.
MATH 266 Calculus III 3 cr.
MATH 331 Differential Equations 3 cr.
Chemistry Minor

Liberal Arts and Education Minor: 22-25 Total Credits

Required Courses: 10-11 cr. hrs.

Option A
CHEM 121 General Chemistry I 5 cr.
or CHEM 120 Introduction to General Chemistry 6 cr.
CHEM 122 General Chemistry II 5 cr.

Option B
CHEM 130 Introduction to Organic Chemistry 5 cr
CHEM 233 Foundations of Organic Chemistry 5 cr

Directed electives: Liberal Arts Minor: 12 cr. hrs.
or Secondary Education Minor: 14 cr. hrs.
At least one course must be at the 300 level or above.
CHEM 231 Organic Chemistry I 3 cr.
CHEM 232 Organic Chemistry II 3 cr.
CHEM 236 Organic Chemistry Lab I 1 cr. (Core A only)
CHEM 237 Organic Chemistry Lab II 1 cr. (Core A only)
CHEM 240 Foundations of Inorganic Chemistry 4 cr.
CHEM 246 Synthetic and Analytical Techniques in Organic Chem I 2 cr.
CHEM 247 Synthetic and Analytical Techniques in Organic Chem II 1 cr.
CHEM 250 Foundations of Analytical Chemistry 4 cr.
CHEM 311 Polymer Chemistry 3 cr.
CHEM 333 Organic Synthesis 4 cr.
CHEM 340 Physical Chemistry of Biological Systems 3 cr.
CHEM 341 Chemical Thermodynamics and Kinetics 3 cr.
CHEM 342 Molecular Structure and Spectroscopy 3 cr.
CHEM 355 Separation Science Laboratory 1 cr.
CHEM 356 Chemical Instrumentation Lab (writing intensive) 1 cr.
CHEM 361 Biochemistry I 3 cr.
CHEM 362 Biochemistry II 3 cr.
CHEM 366 Biochemistry Laboratory (writing intensive) 1 cr.
CHEM 411 Polymer Science 3 cr.
CHEM 416 Polymer Laboratory 1 cr.
CHEM 422 Advanced Inorganic Chemistry (writing intensive) 3 cr.
CHEM 432 Advanced Organic Chemistry 3 cr.
CHEM 461 Pharmacology 3 cr.
CHEM 495 Undergraduate Research 1 cr.

Department of Chemistry and Biotechnology
253 Centennial Science Hall
715-425-3523
www.uwrf.edu/CHEM/

Karl Peterson -Chair, Samuel Alvarado, Ross Jilk, Ekaterina Kadnikova, Michael Kahlow, Lisa Kroutil, Daniel Marchand, Kevin McLaughlin, Barb Nielsen, Matt O'Reilly, Jamie Schneider, Kurt Torgersen
Coaching Minor

Minor Requirements
Minor in Athletic Coaching - 24 credit hours

Required Courses:
EXSS 465 Scientific Principles of Conditioning 3 cr.
(Pre-req = HEAL 262 or 263 AND EXSS 366)
HEAL 262 Applied Anatomy and Exercise Physiology 3 cr.
(or HEAL 263 and HEAL 366 Liberal Arts) (Pre-req = BIOL 150)
P E 131 Weight Training .5 cr.
P ED 213 Care and Prevention of Athletic Injury 2 cr.
(Pre-req = HEAL 262 or 263 AND SFED 200)
P ED 243 Motor Learning & Development 3 cr.
P ED 351 Coaching Young Athletes 2 cr
P ED 363 Psychology of Coaching 3 cr.
P ED 472 Coaching Practicum 3 cr.
(Pre-req = Permission of Instructor)
SFED 200 First Aid and Basic Life Support .5 cr.

Coaching Theory Classes: 4 cr. hrs.
Required to take at least two coaching theory classes
P ED 358 Track Coaching 2 cr.
P ED 359 Volleyball Coaching 2 cr.
P ED 365 Football Coaching 2 cr.
P ED 367 Basketball Coaching 2 cr.
P ED 368 Ice Hockey Coaching 2 cr.
P ED 369 Baseball/Softball Coaching 2 cr.

Updated Sept 2018
Communication Studies Major

Core Requirements: 12 Credits
COMS 106 Interpersonal Communication 3 cr.
COMS 286 Introduction to Communication Studies 3 cr.
COMS 386 Communication Theory and Qualitative Research 3 cr.
COMS 486 Senior Capstone 3 cr.

Goal Requirements: 12-14 credits
Students will take courses to fulfill the five goals of the Communication Studies Program. Courses may be counted in up to two separate goals. For example, if a student takes COMS 308, it may count for BOTH Goal One and Goal Three.

Goal One: Students must take TWO of the following courses to fulfill the goal "Ability to Collaborate."
COMS 206 Family Communication
COMS 308 Small Group Communication
COMS 316 Organizational Communication
COMS 318 Communication and Leadership
COMS 416 Training and Development

Goal Two: Students must take ONE of the following courses to fulfill the goal "Ability to Comprehend Research."
COMS 306 Nonverbal Communication
COMS 319 Freedom to Speak
COMS 440 Gender Communication
COMS 314 Rhetorical Criticism

Goal Three: Students must take TWO of the following courses to fulfill the goal "Ability to be Innovative, Strategic and Effective Communicators."
COMS 206 Family Communication
COMS 211 Public Speaking
COMS 213 Intercultural Communication
COMS 216 Communication in the Interview
COMS 306 Nonverbal Communication
COMS 308 Small Group Communication
COMS 312 Argumentation
COMS 315 Communication and Social Change
COMS 318 Communication and Leadership
COMS 416 Training and Development

Goal Four: Students must take ONE of the following courses to fulfill the goal "Ability to Comprehend Communication Literacy."
COMS 206 Family Communication
COMS 306 Nonverbal Communication
COMS 308 Small Group Communication
COMS 314 Rhetorical Criticism
COMS 315 Communication and Social Change
COMS 316 Organizational Communication
COMS 319 Freedom to Speak
COMS 416 Training and Development
COMS 440 Gender Communication

Goal Five: Students must take TWO of the following courses to fulfill the goal "Ability to Communicate Ethically."
COMS 211 Public Speaking
COMS 213 Intercultural Communication
COMS 315 Communication in Social Change
COMS 318 Communication and Leadership
COMS 319 Freedom to Speak
COMS 314 Rhetorical Criticism

Individual Study Requirements: 3-4 Credits
Students will take one of the following to complement their course of study in consultation with their advisor.
COMS 379 Communication Studies Internship (3-4 hours)
COMS 499 Independent Study (3 hours)

Directed Electives: up to 9 credits
Students must take additional credits in COMS to equal a minimum of 36 credits in the major.

Supporting Course
Students must take either COMS 101 or COMS 116 as a supporting course for the major.
Communication Studies Minor

Communication Studies Minor - Elementary Education

Communication Studies Minor - Elementary Education 24 Total Credits

Required Courses: 9 cr. hrs.
COMS 223 Oral Interpretation of Literature 3 cr.
COMS 306 Nonverbal Communication 3 cr.
COMS 407 Listening Instruction 3 cr.

Directed Electives: 9 cr. hrs.
COMS 208 Problem Solving in Small Group Communication 3 cr.
COMS 327 Children's Theatre and Puppetry 3 cr.
COMS 328 Creative Dramatics for Children and Special Populations 3 cr.
COMS 335 Directing I 3 cr.
or
COMS 231 Stage Technology and Scene Painting

Electives in COMS: 6 cr. hrs.
A research/writing course experience is required in the major or another field; COMS 284
Sophomore Seminar or another course approved by the department chair, will satisfy this
requirement. A senior portfolio experience is required in the major or another field; COMS 484,
Senior Portfolio Seminar or another course approved by the department chair, will satisfy this
requirement.

Communication Studies Minor - Liberal Arts, B.S.

24 Total Credits

Required Courses: 12 cr. hrs.
COMS 106 Interpersonal Communication 3 cr.
COMS 207 Listening Skills 3 cr.
COMS 306 Nonverbal Communication 3 cr.
COMS 311 Persuasion 3 cr.

Directed Electives: 12 cr. hrs.
COMS 208 Problem Solving in Small Group Communication 3 cr.
or
COMS 316 Organizational Communication
COMS 211 Public Speaking 3 cr.
COMS 312 Argumentation and Decision Making 3 cr.
COMS 313 Intercultural Communication 3 cr.
COMS 314 Introduction to Criticism for Oral Communication 3 cr.
COMS 319 Freedom to Speak 3 cr.
COMS 414 Speech in History 3 cr.
COMS 440 Gender Communication 3 cr.
COMS 370 Intercollegiate Debate 1 cr.
or
COMS 371 Intercollegiate Forensics 1 cr.
or
COMS 379 Internship in COMS 3-12 cr.
on
COMS 499 Independent Study/Independent Research 1-3 cr.
A research/writing course experience is required in the major or another field; COMS 284
Sophomore Seminar or another course approved by the department chair, will satisfy this
requirement. A senior portfolio experience is required in the major or another field; COMS 484,
Senior Portfolio Seminar or another course approved by the department chair, will satisfy this
requirement.
Communication Sciences and Disorders Major

Liberal Arts and Education: 38 Total Credits

Required Courses: 38 cr. hrs.
CSD 160 Introduction to Communication Sciences and Disorders 3 cr.
CSD 261 Language Development 4 cr.
CSD 262 Speech Systems 4 cr.
CSD 263 Phonetics 3 cr.
CSD 264 Speech Science 3 cr.
CSD 275 Practicum: Observation/Discussion 1 cr.
CSD 350 Articulatory and Phonological Disorders 3 cr.
CSD 360 Audiology I, 3 cr.
CSD 362 Language Appraisal and Intervention 3 cr.
CSD 460 Voice Disorders 2 cr.
CSD 463 Behavior Modification/Stuttering 3 cr.
CSD 466 Aural Rehabilitation 3 cr.
CSD 479 Clinical Procedures and Experience 3 cr.

Electives:
CSD 162 Introduction to American Sign Language 3 cr.

Professional Education Requirements: 11-14 cr. hrs.
TED 211 Educational Psychology: Elementary Education 5 cr.
TED 422 Content Area Literacy in Middle and Secondary Schools 3 cr.
or TED 461 The Psychology and Pedagogy of Literacy 3 cr.
SPED 330 Introduction to Special Education 3 cr.
Communication Sciences and Disorders Minor

Three different emphases 22 Total Credits

Required Courses: 4 cr. hrs.
CSD 160 Introduction to Communicative Disorders 3 cr.
CSD 275 Practicum: Observation/Discussing 1 cr.

CSD Electives-Choose 3 courses from:
CSD 261 Language Development 4 cr.
CSD 262 Speech Systems 4 cr.
CSD 263 Phonetics 3 cr.
CSD 350 Articulatory and Phonological Disorders 3 cr.
CSD 360 Introduction to Audiology 3 cr.
CSD 362 Language Appraisal and Intervention 3 cr.
CSD 466 Aural Rehabilitation 3 cr.

Early Childhood Directed Electives: 9 cr. hrs.
Choose 3 courses from:
CSTA 207 Listening Skills 3 cr.
ENGL 250 Literature for Children 3 cr.
ENGL 322 Acquisition of Language 3 cr.
PSYC 201 Behavioral Statistics 3 cr.
PSYC 236 Developmental Psychology: Childhood and Adolescence 3 cr.
PSYC 260 Behavior Modification 3 cr.
PSYC 305 Learning and Motivation 3 cr.
PSYC 310 Memory and Thinking 3 cr.
PSYC 315 Psychological Measurement and Evaluation 3 cr.
TED 225 Developmental Learning Experiences of Young Children 3 cr.
TED 255 Reading Guidance for Children 3 cr.
TED 330 Infant and Toddler Programs 3 cr.

2. School Age Emphasis 9 cr. hrs.
CSD Electives-Choose 3 courses from:
CSD 261 Language Development 4 cr.
CSD 262 Speech Systems 4 cr.
CSD 263 Phonetics 3 cr.
CSD 350 Articulatory and Phonological Disorders 3 cr.
CSD 360 Introduction to Audiology 3 cr.
CSD 362 Language Appraisal and Intervention 3 cr.
CSD 460 Voice Disorders 3 cr.
CSD 463 Behavior Modification/Stuttering 3 cr.
CSD 466 Aural Rehabilitation 3 cr.

School Age Directed Electives: 9 cr. hrs.
Choose 3 courses from:
COUN 410 Introduction to Counseling 3 cr.
CSTA 207 Listening Skills 3 cr.
CSTA 222 Voice and Articulation 3 cr.
ENGL 250 Literature for Children 3 cr.
ENGL 322 Acquisition of Language 3 cr.
ENGL 373 Techniques in Tutoring: TESOL Practicum 3 cr.
PSYC 201 Behavioral Statistics 3 cr.
PSYC 236 Developmental Psychology: Childhood and Adolescence 3 cr.
PSYC 260 Behavior Modification 3 cr.
PSYC 305 Learning and Motivation 3 cr.
SPED 420 Introduction to Learning Disabilities
TED 255 Reading Guidance for Children 3 cr.
TED 461 The Psychology and Pedagogy of Literacy 3 cr.

Directed electives that are applicable for Learning Disability certification are COMD 261, SPED 420 and TED 461

3. Adult Emphasis 9 cr. hrs.

**CSD Electives-Choose 3 courses from:**
CSD 262 Speech Systems 4 cr.
CSD 263 Phonetics 3 cr.
CSD 350 Articulatory and Phonological Disorders 3 cr.
CSD 360 Introduction to Audiology 3 cr.
CSD 460 Voice Disorders 3 cr.
CSD 463 Behavior Modification/Stuttering 3 cr.

**Adult Directed Electives: 9 credits**

**Choose 3 courses from:**
COUN 410 Introduction to Counseling 3 cr.
CSTA 207 Listening Skills 3 cr.
CSTA 222 Voice and Articulation 3 cr.
CSTA 306 Nonverbal Communication 3 cr.
ENGL 373 Techniques in Tutoring: TESOL Practicum 3 cr.
PSYC 201 Behavioral Statistics 3 cr.
PSYC 260 Behavior Modification 3 cr.
PSYC 305 Learning and Motivation 3 cr.
PSYC 310 Memory and Thinking 3 cr.
PSYC 315 Psychological Measurement and Evaluation 3 cr.
PSYC 336 Developmental Psychology: Adulthood and Aging 3 cr.
SOCI 315 Sociology of Later Life 3 cr.
SOCI 300 Research Methods (writing intensive) 3 cr.
or SOWK 300 Research Methods
Computer Science Bachelor of Applied Science

This academic plan is discontinued effective Fall 2018.

Degree Requirements
(30 Credit hours)
CSIS 161 Programming I, 3 cr.
CSIS 162 Programming II, 3 cr.
CSIS 215 Information Systems for Business Management, 3 cr.
CSIS 225 Web Development I, 3 cr.
CSIS 247 Introduction to Computer Networks, 3 cr.
CSIS 333 Database Management Systems, 3 cr.

Directed Electives, 9 cr.
To be selected from 200-400 CSIS courses in consultation with advisor.

Required Supporting Math Course
MATH 146 College Algebra, 3 cr.

Department of Computer Science and Information Systems
124 South Hall
715-425-3335
www.uwrf.edu/CBE/

Hossein Najafi - Chair, Ahmad Abuhejleh, Charles Hurt, Arpan Jani, Anthony Varghese, Ellen Schultz-Academic advisor.
Computer Science and Information Systems Major

Computer Science

Computer Science Option: 56-57 Total Credits

This option has a technical and theoretical emphasis providing students with a comprehensive understanding of software engineering, computing techniques and the underlying theories. Graduates will develop skills relevant to the analysis, design and implementation of sophisticated software/hardware systems and communication networks.

Required Courses: 39 cr. hrs.
CSIS 161 Programming I 3 cr.
CSIS 162 Programming II 3 cr.
CSIS 225 Web Development I 3 cr.
CSIS 235 Object-Oriented Programming 3 cr.
CSIS 237 Data Structure and Algorithm 3 cr.
CSIS 247 Introduction to Computer Networks 3 cr.
CSIS 248 Operating Systems Programming 3 cr.
CSIS 333 Database Management Systems 3 cr.
CSIS 343 Software Engineering and Capstone Project 3 cr.
CSIS 355 Computer Organization and Assembly Language 3 cr.
CSIS 429 Operating Systems 3 cr.
CSIS 435 Computer and Information Security 3 cr.
CSIS 484 Senior Capstone Seminar 3 cr.
or CSIS 379 Internship in Computer Science 3 cr.

Undergraduate CSIS students with CS option may apply for admission to the accelerated MSCS program once they have successfully completed CSIS 343.

Directed Electives 9 cr. hrs.
To be selected from 200-400 level CSIS-CS courses, excluding CSIS 215. In consultation with advisor, student may take up to three (3) credits from CSIS 423, CSIS 440, MATH 346, MATH 347, or GEOG 250.

Students admitted to the accelerated bachelor's to master's program are able to complete a maximum of 9 credit hours of 600-level MSCS courses in place of their Directed Elective. Students will be able to count these credit hours as both undergraduate and graduate credits applied to the MSCS graduate program and their corresponding undergraduate program. The directed electives available to students admitted to the accelerated bachelor's to master's program include CSIS 630, CSIS 631, and CSIS 634.

Required supporting courses: 10-11 cr. hrs.
MATH 156 Calculus for Business and Social Science 3 cr.
or MATH 166 Calculus I 4 cr.
MATH 236 Discrete Mathematics 4 cr.
CBE 100 CBE First Year Seminar 2 cr.
CBE 300 Professional Development 1 cr.

Information Systems

Information Systems Option: 55-56 Total Credits

The analysis and design of information systems with an emphasis on managing, storing, transmitting and providing ready access to information is the key to the IS option. Graduates will develop skills relevant to the analysis, design and implementation of sophisticated information systems.

Required Courses: 30 cr. hrs.
CSIS 161 Programming I 3 cr.
CSIS 162 Programming II 3 cr.
CSIS 215 Information Systems for Business Management 3 cr.
CSIS 235 Object-Oriented Programming 3 cr.
CSIS 247 Introduction to Computer Networks 3 cr.
CSIS 333 Database Management Systems 3 cr.
CSIS 423 Introduction to System Analysis I 3 cr.
CSIS 433 Design Analysis MIS 3 cr.
CSIS 440 Information Systems Project Management 3 cr.
CSIS 484 Senior Capstone Seminar 3 cr.
or CSIS 379 Internship in Computer Science 3 cr.

Directed Electives: 6 cr. hrs.
Two (2) courses to be selected from the following:
CSIS 225 Web Development I
ECON 326 Statistical Methods for Economics and Business 3 cr.
MNGT 318 Operations Research 3 cr.
MNGT 340 Ethical Leadership 3 cr.
MNGT 350 Decision Making 3 cr.
GEOG 250 Introduction to GISci 3 cr.
Other 300-400 CSIS level courses in consultation with advisor

Required supporting courses: 19-20 cr. hrs.

- Business Domain: 12 cr. hrs.
  
  COMS 116 Business and Professional Communication 3 cr.
or ENGL 266 Business Writing 3 cr.
MNGT 300 Management and Organizational Behavior 3 cr.
MNGT 365 Business Process Management 3 cr.
One (1) course from:
MNGT 320 Human Resource Management 3 cr.
or ACCT 231 Principles of Accounting I 3 cr.
or MNGT 361 Operations Management 3 cr.
or MKTG 310 Principles of Marketing 3 cr.

- Math: 6-7 cr. hrs.

  MATH 156 Calculus for Business and Social Sciences 3 cr.
or MATH 166 Calculus I 4 cr.
ECON 226 Introduction to Statistics 3 cr.
or MATH 226 Fundamentals of Statistics 3 cr.

- CBE required courses for all majors: 3 cr. hr.
  
  CBE 100 CBE First Year Seminar 2 cr.
  CBE 300 Professional Development 1 cr.
Computer Science
Computer Science Option: 31-32 Total Credits

Required Courses: 18 cr. hrs.
CSIS 161 Programming I 3 cr.
CSIS 162 Programming II 3 cr.
CSIS 225 Web Development I 3 cr.
CSIS 235 Object-Oriented Programming 3 cr.
CSIS 247 Introduction to Computer Networks 3 cr.
CSIS 333 Database Management Systems 3 cr.

Directed Electives 6 cr. hrs.
Directed electives 6 cr. hrs. In consultation with advisor, six (6) credits to be selected from 200-400 level CSIS courses, excluding CSIS 215.
Student may take up to three (3) credits from CSIS 423, CSIS 440, MATH 346, MATH 347, or GEOG 250 with advisor consultation.

Required supporting math courses: 7-8 cr. hrs.
MATH 156 Calculus for Business and Social Science 3 cr.
or MATH 166 Calculus I 4 cr.
MATH 236 Discrete Mathematics 4 cr.

Information Systems
Information Systems Option: 24 Total Credits

Required Courses: 18 cr. hrs.
CSIS 161 Programming I 3 cr.
CSIS 162 Programming II 3 cr.
CSIS 215 Information Systems for Business Management 3 cr.
CSIS 247 Introduction to Computer Networks 3 cr.
CSIS 333 Database Management Systems 3 cr.
CSIS 423 Introduction to System Analysis I 3 cr.

Directed Electives: 6 cr. hrs.
One (1) course to be selected from the following:
CSIS 225 Web Development I 3 cr.
CSIS 235 Object-Oriented Programming 3 cr.
CSIS 433 Design Analysis MIS 3 cr.
CSIS 440 Information Systems Project Management 3 cr.
Other 300-400 level CSIS course in consultation with advisor.

One (1) course to be selected from the following:
ECON 326 Statistical Methods for Economics and Business 3 cr.
MNGT 318 Operations Research 3 cr.
MNGT 340 Ethical Leadership 3 cr.
MNGT 350 Decision Making 3 cr.
MNGT 365 Business Process Management 3 cr.

Required supporting math courses: 6-7 cr. hrs.
MATH 156 Calculus for Business and Social Sciences 3 cr.
or MATH 166 Calculus I 4 cr.
ECON 226 Introduction to Statistics 3 cr.
or MATH 226 Fundamentals of Statistics 3 cr.
Conservation Minor

Conservation Minor 22 cr. hrs.
ESM 105 Introduction to Environmental Studies 2 cr.
ESM 109 Introduction to Forestry 2 cr.
ESM 151 Introduction to Land Use Theory and Practice 3 cr.
ESM 343 Woodlot Management 3 cr.
ESM 360 Applied Hydrology and Water Quality 4 cr.
SOIL 120 Introduction to Soil Science 3 cr.
SOIL 440 Soil and Water Conservation 4 cr.

Department of Plant and Earth Science
324 Agricultural Science
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Holly Dolliver-Chair, Olutoyosi Ajayi, Jill Coleman Wasik, Heather Davis, Christopher Holtkamp, Todd Johnson, Kevyn Juneau, Veronica Justen, Kerry Keen, Natasha Macnack, Sonja Maki, Yoana Newman, Eric Sanden, Brian Smith, Dan Waletzko, Ian Williams, David Zlesak
Conservation and Environmental Planning

University Requirements
Global Perspectives: GEOL 250 Geological Destinies of Nations (recommended) 3 cr.
American Cultural Diversity: ENGL 228 Literature of Environmental Justice (recommended) 3 cr.

General Education
BIOL 150, CHEM 115, ESM 105

Core Courses
ESM 151 Introduction to Land Use Theory and Practice 3 cr.
ESM 220 Environmental Sustainability 3 cr.
ESM 245 Foundations of Ecological Restoration 2 cr.
ESM 270 Internship 2-4 cr.
ESM 303 Environmental Policies and Administration 3 cr.
ESM 333 Remote Sensing of Natural Resources 3 cr.
OR ESM 363 GIS Applications in Resource Management 3 cr.
ESM 360 Hydrology and Water Quality 4 cr.
ESM 485 Seminar: Resource Management 1 cr.

Support Courses
SOIL 120 Introduction to Soils 3 cr.
AGEC 230 Introduction to Agricultural Economics 3 cr.
GEOG 250 Introduction to GIS 3 cr.
CHEM 215 Chemistry Lab Concepts and Techniques 1 cr.

Conservation Option
SOIL 440 Soil and Water Conservation 4 cr.
GENG 235 Surveying 3 cr.
BIOL 210 General Botany 3 cr.
OR BIOL 230 General Zoology 3 cr.
BIOL 344 Wildlife Biology 4 cr.
BIOL 360 Ecology 3 cr.
AGEC 450 Introduction to Natural Resources Economics 3 cr.
ESM 109 Introduction to Forestry 2 cr.

Directed Electives - 15 credits
ESM 343, ESM 345, ESM 363, SOIL 250, SOIL 311, SOIL 325, SOIL 350, AET 333, AET 355,
AGEN 365, BIOL 230, BIOL 333, BIOL 354, BIOL 434, BIOL 444, GEOG 360, GEOG 366, GEOG
368, GEOG 460, GENG 121, GENG 368, GEOL 327, GEOL 445, CROP 263, CROP 266, CROP
267, CROP 368, CROP 468, HORT 250, HORT 255, HORT 268, HORT 310, HORT 327, HORT
347, HORT 352, SOCI 200, CJ 202, CJ 310, CJ 320, CJ 322, CJ 376, CJ 379, CJ 430, CJ 435,
SOCI 208, SOCI 218, SOCI 225 / ANTH 225, SOCI 240, SOCI 330, SOCI 410, SOCI 445

General Electives - 5-10 credits

Environmental Planning Option
ESM 251 Community Decision-Making 3 cr.
ESM 351 Planning for Sustainable Communities 3 cr.
ESM 411 Site and Landscape Planning 4 cr.
ESM 435 Advanced Land Use Planning and Design 4 cr.
AGEC 445 / ESM 445 Land Use and Sustainable Agricultural Law 3 cr.
GEOL 269 Environmental Geology 3 cr.

Directed Electives - 15 credits
ESM 343, ESM 345, ESM 363, SOIL 250, SOIL 311, SOIL 325, SOIL 350, AET 333, AET 355,
**General Electives - 7-12 credits**

**Restoration Management Emphasis**

The restoration management emphasis consists of 15 credits and can be taken by students of any major. The course selection includes:

- **ESM 343** Forest Restoration (3 cr.)
- **ESM 345** Prairie Restoration and Fire Ecology (3 cr.)
- **ESM 347** Restoration of Aquatic Systems (3 cr.)
- **SOIL 325** Hydric Soils and Wetland Environments (3 cr.)
- **AGEN 333** Landscape Construction (3 cr.)

* **ESM 245** Foundation of Ecological Restoration (2 cr.) is a pre-requisite for several courses in the emphasis.
Creative Writing Minor

Creative Writing Minor: 24 credits
Required Courses 12 credits
ENGL 251 Advanced Composition
ENGL 253 Introduction to Literary Studies
ENGL 262 Creative Writing
ENGL 368 Writing Poetry
ENGL 369 Writing Fiction
ENGL 382 Writing Workshop Poetry & Prose

Directed Electives 12 credits
Select two courses from the following
ENGL 370 Writing Nonfiction
ENGL 381 Screenwriting

Select one genre course
ENGL 230 International Short Fiction (g)
ENGL 231 The Short Story
ENGL 232 Contemporary Drama
ENGL 233 Introduction to Poetry
ENGL 234 Modern Novels

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245 Kleinpell Fine Arts
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Marshall Toman (Chair), Greta Gaard, Annette Klemp, Steven Luebke, Mialisa Moline, Michelle Parkinson, Vladimir Pavlov, Joseph Rein, Catherine Nasara, Elizabeth Schneider-Rebozo, Douglas Margolis

The Creative Writing minor is a preparation for writing for personal pleasure as well as for publication. This minor can be taken in combination with an English major; however, students should consult this handbook to plan substitutions for overlapping requirements. Students who choose the Creative Writing minor should plan their programs with Dr. Jennifer Brantley or Joseph Rein.
Criminology Major

Criminology Major - 36 Total Credits

Students must maintain a minimum of a 2.25 G.P.A. to remain eligible for the program.

Core Requirements 18 cr. hrs.
CRIM 130 Intro. to Crime, Law, and Society (required supporting – counts Gen. Ed.)
SOCI 200 Sociological Inquiry 3 cr.
CRIM 201 Theories of Crime 3 cr.
CRIM 210 Criminal Behavior 3 cr.
SOCI 250 Social Statistics 3 cr.
SOCI 300 Research Methods 3 cr.
SOCI 480 Senior Seminar 3 cr.

Directed Electives: 18 cr. hrs.

At least 6 credits from Criminal Behavior
SOCI 218 Deviant Behavior 3 cr.
CRIM 221 Crime, Justice, and Media 3 cr.
CRIM 311 Juvenile Crime and Justice 3 cr.
CRIM 312 Gangs and Gang Behavior 3 cr.
CRIM 313 White Collar Crime 3 cr.
CRIM 321 Race and Crime 3 cr.
CRIM 389 Special Topics in Crime and Justice 3 cr.

At least 6 credits from Crime and Justice
CRIM 241 Victimology 3 cr.
CRIM 341 Restorative Justice 3 cr.
CRIM 351 Women, Crime, and Justice 3 cr.
POLS 359 CJ Politics and Policy 3 cr.
CRIM 361 Social Policy and Drugs 3 cr.
CRIM 441 Trends/Issues in Incarc. 3 cr.
CRIM 442 Alternatives to Incarc. 3 cr.

Options Allowed in Directed Electives Having Specific Requirements/Rules
CRIM 379 Internship in Crime and Justice 6–12 cr. (must be at least a junior and 18 credits of major complete)
CRIM 399 Law Enforcement Certification 6–12 cr. (must take at a technical school and transfer in these credits)
CRIM 490 Readings in Criminology 1–2 cr. (only available Summer or J-Term with faculty consent)
CRIM 499 Independent Study in Criminology 1-2 cr. (only available Summer or J-Term with faculty consent)
Criminology Minor

Criminology Minor 24 Total Credits

Required Courses: 12 cr. hrs.
CRIM 130 Introduction to Crime, Law, and Society 3 cr.
CRIM 201 Theories of Crime 3 cr.
CRIM 210 Criminal Behavior 3 cr.
SOCI 210 Social Problems 3 cr.

Directed Electives: 12 cr. hrs.
SOCI 218 Deviant Behavior 3 cr. hrs.
CRIM 241 Victimology 3 cr.
CRIM 311 Juvenile Crime and Justice 3 cr.
CRIM 312 Gangs and Gang Behavior 3 cr.
CRIM 313 White Collar Crime 3 cr.
CRIM 321 Race and Crime 3 cr.
CRIM 341 Introduction to Restorative Justice 3 cr.
CRIM 351 Women, Crime, and Justice 3 cr.
CRIM 359 Criminal Justice Politics and Policy 3 cr.
CRIM 379 Internship in Crime and Justice 6-12 cr.
CRIM 389 Special Topics in Crime and Justice 3 cr.
CRIM 399 Law Enforcement Certification 6–12 cr.
CRIM 441 Trends and Issues in Incarceration 3 cr.
CRIM 442 Alternatives to Incarceration 3 cr.

Department of Sociology,
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Rich Wallace-Chair, Phillip Galli, Kirsten Lindbloom, B. Paige Miller, Shawn Trusten, Desiree Wiesen-Martin, Erik Withers, Tracy Zank
Crops and Soils Major

Foundation Courses in Agriculture 12 cr. hrs.
- PLSC 161 Introduction to Plant Science 3 cr.
- SOIL 120 Introduction to Soil Science 3 cr.
- AGEC 230 Agricultural Economics I 3 cr.

Select one from:
- AET 150 Agricultural & Environmental Engineering Technology 3 cr.
- ANSC 111 Introduction to Animal Science 3 cr.
- FDSC 110 The Science of Food 3 cr.

Major Requirements 54-64 Total Credits

Required Courses: 16 cr. hrs.
- CROP 263 Forage Crop Production 3 cr.
- CROP 266 Crop and Soybean Production 3 cr.
- CROP 285 Communication Seminar in Crops and Soils 1 cr.
- SOIL 311 Soil Fertility 4 cr.
- SOIL 440 Soil and Water Conservation 4 cr.
- CROP 485 Seminar in Agronomy 1 cr.

Options (choose one):

Crop Science
Crop Science Option 48 cr. hrs.
- CROP 257 Genetics 3 cr.
- CROP 260 Plant and Seed Identification 3 cr.
- CROP 345 Weed Control 3 cr.
- CROP 410 Plant Breeding and Crop Improvement 3 cr.
- CROP 435 Crop Physiology 4 cr.
- CROP 451 Integrated Pest Management 3 cr.
- ANSC 341 Biometrics 3 cr.
- AGBI 251 Agricultural Biochemistry 3 cr.
- AGBI 252 Agricultural Biochemistry Lab Techniques 1 cr.
- BIOL 314 Plant Pathology 3 cr.
- BIOL 333 Entomology 3 cr.
- CHEM 215 Chemistry Lab Concepts and Techniques 1 cr.
- CHEM 230 General Organic Chemistry 3 cr.

Select one course from the following:
- AGEC 355 Agricultural Marketing and Production 3 cr.
- AGEC 360 Farm Management 3 cr.
- AGEC 365 Agricultural Finance 3 cr.
- AGEC 410 Professional Selling 3 cr.

Directed Electives 10 cr. hrs.
Any additional CROP course, AGEC 355, AGEC 360, AGEC 410, AET 150, AET 363, ANSC 111, AFES 222, BIOL 210, FDSC 110, HORT 327, HORT 347, SOIL 250, SOIL 350, SOIL 460
These courses cannot be used as directed electives and foundation courses in agriculture simultaneously.

Soil Science
Soil Science Option 39-43 cr. hrs.
- SOIL 250 Soil Profile Descriptions 2 cr.
- SOIL 325 Hydric Soils and Wetland Environments 3 cr.
- SOIL 350 Soil Development 2 cr.
- SOIL 460 Soil Physics 3 cr.
- CHEM 215 Chemistry Lab Concepts and Techniques 1 cr.

Department of Plant and Earth Science
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Yoana Newman, Eric Sanden, Brian Smith, Dan
Waletzko, Ian Williams, David Zlesak

Three options exist for students who select the Crop and Soil Science major: 1) Crop Science, 2) Soil Science, and 3) Sustainable Agriculture. The Crop Science option is designed for students who wish to focus their studies on plants and the use of plants for food, feed and fiber. Students learn about crop management, biotechnology, crop physiology, crop quality, as well as genetics and plant breeding. The Soil Science option is designed for those whose interests include the basic components and properties of soils, soil conservation, soil fertility, soil hydrology, and the management of soils to produce crops in a sustainable way. The Sustainable Agriculture option is the study of economically viable production systems that promote land productivity, energy efficiency, environmental stewardship, and rural community viability.

General Education Requirements
The following general education courses are required in the major: MATH 146 or equivalent, CHEM 115 and BIOL 150. The Sustainable Agriculture option also requires SOCI 100.

University Requirements
Students must complete a three-credit course related to American Cultural Diversity (the University D requirement), as well as a three-credit course related to Global Perspectives (the University G requirement).
CHEM 230 General Organic Chemistry 3 cr.
GEOL 101 Introductory Geology 3 cr.
GEOL 102 Introductory Geology Lab 1 cr.
GEOL 327 Geomorphology and Glacial Geology 4 cr.
ESM 360 Applied Hydrology and Water Quality 4 cr.

Select two courses from the following:
CROP 267 Small Grain and Miscellaneous Crop Production 3 cr.
CROP 345 Weed Control 3 cr.
CROP 363 Pasture Management 2 cr.
CROP 368 Sustainable Agriculture 3 cr.
CROP 435 Crop Physiology 4 cr.
CROP 451 Integrated Pest Management 3 cr.
ESM 305 Environmental Impact Assessment 2 cr.
ESM 412 Fate and Transport of Chemicals in the Environment 3 cr.
ESM 413 Environmental Analysis 4 cr.
GEOL 417 Hazardous Waste Operation & Emergency Response 2 cr.
GEOL 445 Hydrogeology 4 cr.

Select two courses from the following:
AET 363 Precision Agriculture Technology 3 cr.
ANSC 341 Biometrics 3 cr.
ESM 333 Remote Sensing of Natural Resources 3 cr.
ESM 363 GIS Applications in Resource Management 3 cr.
GENG 235 Surveying 3 cr.
GENG 236 Advanced Surveying 3 cr.
GEOG 250 Intro Cartography and GIS 3 cr.
GEOG 360 GIS: Theory and Methods 3 cr.
GEOG 366 Field Methods & GPS 3 cr.

Select one course from the following:
ENGL 266 Business Writing 3 cr.
ENGL 367 Technical Writing 3 cr.

**Sustainable Agriculture**

**Sustainable Agriculture Option 43 cr. hrs.**
ESM 105 Introduction to Environmental Studies 3 cr. (counts in EC)
AGEC 250 World Food and Population 3 cr. (counts in GP)
CHEM 215 Chemistry Lab Concepts and Techniques 1 cr.
CROP 368 Sustainable Agriculture 3 cr.
CROP 451 Integrated Pest Management 3 cr.
CROP 468 Organic Agronomic Production Sys 3 cr.
ESM 220 Environmental Sustainability 3 cr.

Select two courses of the following:
AGEC 240 Cooperatives 3 cr.
AGEC 355 Agricultural Marketing 3 cr.
AGEC 360 Farm Management 3 cr.
AGEC 361 Horticulture Business Management 3 cr.
AGEC 450 Intro to Natural Resource Economics 3 cr.
AGEC 495 Direct Marketing 3 cr.
AGEC 410 Professional Selling 3 cr.

Select two courses of the following:
AGED 202 Leadership and Group Dynamics 3 cr.
ENGL 228 Literature of Environmental Justice 3 cr. (counts in ACD)
ESM 251 Community Decision-Making 3 cr.
ESM 351 Planning for Sustainable Communities 3 cr.
GEOG 214 World Patterns of Plants and Animals 3 cr.
GEOG 220 Economic Geography 3 cr.
PHIL 240 Social Ethics 3 cr.
PHIL 303 Environmental Ethics 3 cr.
PHIL 304 Business Ethics 3 cr.
SOCI 332 Environmental Sociology 3 cr.

**Directed Electives 12 cr.**
Select 12 credits in one of the following areas AET, AGEC, AGEN, ANSC, BIOL, CROP, DASC, ESM, FDSC, GEOL, HORT or SOIL. These cannot be used in other areas of the major or as a foundation course in agriculture.
Crop Science Minor

Minor Requirements 21 Total Credits

Required Courses: 3 cr. hrs.
CROP 161 Introduction to Plant Science 3 cr.

Select 18 credits from:
AET 363 Precision Ag Technology 3 cr.
CROP 257 Genetics 3 cr.
CROP 260 Plant and Seed Identification 3 cr.
CROP 263 Forage Crop Production 3 cr.
CROP 266 Corn and Soybean Prod (writing intensive) 3 cr.
CROP 267 Small Grains 3 cr.
CROP 270 or CROP 370 Internship 2-4 cr.
CROP 345 Weed Control 3 cr.
CROP 363 Pasture Production 2 cr.
CROP 368 Sustainable Agriculture 3 cr.
CROP 410 Plant Breeding 3 cr.
CROP 435 Crop Physiology 4 cr.
CROP 451 Integrated Pest Management 3 cr.
CROP 468 Organic Production Systems 3 cr.
SOIL 311 Soil Fertility 4 cr.

Department of Plant and Earth Science
324 Agricultural Science
715-425-3345
www.uwrf.edu/PES/

Holly Dolliver-Chair, Olutoyosi Ajayi, Jill Coleman Wasik, Heather Davis, Christopher Holtkamp, Todd Johnson, Kevyn Juneau, Veronica Justen, Kerry Keen, Natasha Macnack, Sonja Maki, Yoana Newman, Eric Sanden, Brian Smith, Dan Waletzko, Ian Williams, David Zlesak
Dairy Science Major

Major Concentration
DASC 106 Intro to Dairy Science 3 cr.
DASC 200 Orientation to Dairy Science 1 cr.
DASC 204 Milk Processing 2 cr.
DASC 206 Dairy Records 2 cr.
DASC 236 Applied Feeds & Nutrition 4 cr.
ANSC 257 Genetics 4 cr.
ANSC 260 Animal Physiology (Mgmt)
  or ANSC 360 Animal Anatomy & Physiology (Science)
DASC 306 Dairy Production 3 cr.
ANSC 345 Animal Health 2 cr.
DASC 357 Dairy Cattle Breeding and Genetics 2 cr.
DASC 437 Dairy Herd Evaluation 1 cr.
ANSC 448 Physiology of Reproduction 3 cr.
DASC 336 Dairy Cattle Nutrition 3 cr.
ANSC 433 Advanced Nutrition 3 cr.
DASC 485 Seminar in Dairy Science 1 cr.

Select Management or Science Emphasis

Management emphasis
AGEC 205 Ag Accounting 3 cr.
Select one: AFES 310 Ag Human Resources Management
  or any AGEC 300 level or above

Additional directed electives: 5-7 cr.
Students may select any combination of 200 level or higher courses offered by Food Science,
Agricultural Education, Agricultural Economics, Agricultural Engineering, Plant and Earth Science,
Modern Languages or the College of Business and Economics. DASC 270 Internship credits will count here.

Science emphasis
BIOL 230 General Zoology 3 cr.
CHEM 112 General Chemistry II 4 cr.
CHEM 116 General Chemistry Lab I 1 cr.
CHEM 117 General Chemistry Lab II 1 cr.
CHEM 236 Organic Chemistry Lab I 1 cr.
MATH 147, MATH 149 or MATH 168 3-4 cr.
PHYS 121 or PHYS 131 General Physics I 5 cr.

Animal and Food Science Department
247 Agricultural Science
715-425-3704
www.uwrf.edu/ANFS/

Gary Onan-Chair, Casie Bass, Larry Baumann,
Dennis Cooper, Michelle DeBoer, Michelle Farner,
Brian Greco, Young Dal Jang, Sylvia Kehoe,
Steve Kelm, Justin Luther, Melkaye Melka,
Nathan O'Connor, Beth Rausch, Peter Rayne,
Kurt Vogel, Bonnie Walters

The Department of Animal and Food Science offers two emphases for Dairy Science majors.
Required core courses within the Dairy Science major are identical, regardless of emphasis.
Additional requirements are based on the choice of emphasis. The Dairy Science-Management emphasis is designed for students seeking careers in dairy farm management or supporting industries such as feed, pharmaceutical, or genetics sectors of the dairy industry. The Dairy Science-Science emphasis is designed for students that plan to enroll in graduate or professional degree programs following completion of the Bachelor of Science degree. This emphasis is strongly suggested for students that hope to enroll in a college of veterinary medicine at a future date.

General Education Requirements
As listed with the following exceptions:
CS (Communication/Speaking and Listening) designator:
  COMS 101 or COMS 116 is required
SL (Scientific Investigation) / S (Sciences) designator:
  BIOL 150 is required
  CHEM 120 or CHEM 121 is required

Professional Studies in CAFES
ANSC 100 Intro to Animal Industries 2 cr.
AGEC 230 Agricultural Economics 3 cr.
PLSC 161 Intro to Plant Science 3 cr.
Select one from the following:
FDSC 110 Science of Food 3 cr.
  or AET 150 Intro to Ag Engineering 3 cr.
  or SOIL 120 Intro to Soil Science 3 cr.
  or AGED 202 Leadership & Group Dynamics 3 cr.
Dairy Science Minor

Dairy Science Minor 22 total cr. hrs.

Required courses: 18 cr. hrs.
- ANSC 231 Principles of Nutrition 3 cr.
- ANSC 232 Applied Feeds and Feeding 3 cr.
- ANSC 257 Genetics 3 cr.
- DASC 306 Dairy Production 3 cr.

Choose two from:
- DASC 404 Lactation and Milk Quality 3 cr.
- DASC 406 Advanced Dairy Management 3 cr.
- DASC 436 Dairy Cattle Nutrition 3 cr.

Directed Electives: 4-6 cr. hrs.
Choose 1-3 courses from all courses in DASC, ANSC, AGBI, or FDSC EXCEPT the following:
- courses numbered lower than the 200 level; more than one evaluation or independent study course-
- DASC 210, DASC 310, DASC 490, ANSC 211, ANSC 311, ANSC 313, ANSC 490, FDSC 490

Animal and Food Science Department
247 Agricultural Science
715-425-3704
www.uwrf.edu/ANFS/

Gary Onan-Chair, Casie Bass, Larry Baumann, Dennis Cooper, Michelle DeBoer, Michelle Farner, Brian Greco, Young Dal Jang, Sylvia Kehoe, Steve Kelm, Justin Luther, Melkaye Melka, Nathan O'Connor, Beth Rausch, Peter Rayne, Kurt Vogel, Bonnie Walters
Dairy Science Certification

Dairy Science Two-Year Certificate: 60 total cr. hr.

General education requirements: 25-26 cr. hrs.
- BIOL 150 General Biology 3 cr.
- CHEM 120 Introduction to General Chemistry 6 cr.
or CHEM 121 General Chemistry I 5 cr.
- ENGL 100 Academic Reading and Writing 3 cr.
- ENGL 200 Investigating Ideas: Reading, Writing, and the Disciplines 3 cr.
- ESM 105 Introduction to Environmental Studies 3 cr.
- MATH 146 College Algebra 3 cr.
- P ED 108 Health and Fitness for Life 1 cr.
- P E (Select two 0.5 cr. activities courses) 1 cr.
- COMS 101 Fundamentals of Oral Communication 3 cr.

Dairy Science requirements: 30 cr. hrs.
- ANSC 111 Introduction to Animal Science 3 cr.
- ANSC 231 Principles of Nutrition 3 cr.
- ANSC 232 Applied Feeds and Feeding 3 cr.
- ANSC 257 Genetics 3 cr.
- ANSC 345 Animal Health 2 cr.
- DASC 120 Orientation to Dairy Science 1 cr.
- DASC 306 Dairy Production 3 cr.

CAFES Electives: 12 cr. hrs.

General Electives: 4-5 cr. hrs.
Dance Minor

Currently not accepting students into Dance Minor

 Minor Requirements 24 credits

 **Required for Performance and Education Options**
DANC 120 Somatic Practices for the Performing Arts 3 cr.
DANC 150 Improvisation for the Performing Arts 2 cr.
DANC 180 Applied Dance Technique 1 cr.
DANC 221 Contemporary Dance Technique 2 cr.
DANC 224 Ballet I 1 cr.
DANC 226 Ballet II 1 cr.
DANC 250 Dance Composition: An Interrelated Arts Approach 3 cr.
DANC 260 Dance Production/Repertory 3 cr.
DANC 310 Jazz and Tap Technique 2 cr.

 **Required for Performance Option**
DANC 307 Social Dance II 2 cr.
DANC 350 Choreographic Project 1 cr.

 **Required for Education Option**
DANC 320 Dance Pedagogy 3 cr.

 **Required Supporting Course**
DANC 100 Dance Appreciation 3 cr.
Dance Minor

Currently not accepting students into Dance Minor

Minor Requirements 24 credits

Required for Performance and Education Options
DANC 120 Somatic Practices for the Performing Arts 3 cr.
DANC 150 Improvisation for the Performing Arts 2 cr.
DANC 180 Applied Dance Technique 1 cr.
DANC 221 Contemporary Dance Technique 2 cr.
DANC 224 Ballet I 1 cr.
DANC 226 Ballet II 1 cr.
DANC 250 Dance Composition: An Interrelated Arts Approach 3 cr.
DANC 260 Dance Production/Repertory 3 cr.
DANC 310 Jazz and Tap Technique 2 cr.

Required for Performance Option
DANC 307 Social Dance II 2 cr.
DANC 350 Choreographic Project 1 cr.

Required for Education Option
DANC 320 Dance Pedagogy 3 cr.

Required Supporting Course
DANC 100 Dance Appreciation 3 cr.
Data Science and Predictive Analytics

Required Courses

CSIS 161 Programming I 3 cr.
CSIS 162 Programming II 3 cr.
CSIS 215 Information System 3 cr.
CSIS 225 Web Development 3 cr.
CSIS 235 Object Oriented Programming 3 cr.
CSIS 237 Data Structures 3 cr.
CSIS 239 Introduction to Data Science 3 cr.
CSIS 333 Database Management Systems 3 cr.
CSIS 334 Data Visualization 3 cr.
CSIS 339 Massive Data Storage and Retrieval 3 cr.
CSIS 452 Applied Machine Learning 3 cr.
CSIS 488 Capstone Data Science Practicum Project 3 cr.

MATH 166 Calculus I 4 cr.
MATH 167 Calculus II 4 cr.
MATH 236 Discrete Mathematics 4 cr.
MATH 256 Linear Algebra 3 cr.
MATH 326 or ECON 326 Applied Statistics 3 cr.
MATH 327 Applied Regression Analysis 3 cr.
ECON 426 Econometrics 3 cr.

In addition to the required core of courses, students must take an additional 12-15 credits in one of the areas of Computer Science, Mathematics, Accounting, Finance, Management, Marketing, Economics or GIS.

Undergraduate Data Science students with CS Option may apply for admission to the accelerated MSCS program once they have successfully complete CSIS 343.

Students admitted to the accelerated bachelor's to master's program are able to complete a maximum of 9 credit hours of 600-level MSCS courses in place of Data Science electives -- CSIS 355, CSIS 429, or CSIS 435. Students will be able to count these credit hours as both undergraduate and graduate credits applied to the MSCS graduate program and their corresponding undergraduate program. The directed electives available to students admitted to the accelerated bachelor's to master's program include CSIS 630, CSIS 631 and CSIS 634.

Department of Computer Science and Information Systems

124 South Hall
715-425-3335
www.uwrf.edu/CBE/

Hossein Najafi - Chair, Ahmad Abuhejleh, Ruxin Dai, Jacob Hendricks, Arpan Jani, Tony Varghese

The vision of the College of Business and Economics is to be a community of choice and the regional leader in the acquisition, study, application and sharing of business, economics and information technology knowledge. Consistent with this vision, the College is accredited by the Association to Advance Collegiate Schools of Business (AACSB) International.
Degree Requirements

Stage and Screen Arts Major

Total Required Credit Hours: 41

All classes are 3 credits unless otherwise specified.

Required Courses (30 Credit Hours):

SASA 112 Introduction to Storytelling
SASA 113 Collaborative Problem Solving for Stage and Screen
SASA 121 Acting for Stage and Screen I
SASA 131 Visual Elements for Stage and Screen
SASA 294 Creative and Scholarly Research
SASA 335 Directing for Stage and Screen I
SASA 379 Internship
SASA 490 Entrepreneurship/Senior Capstone for Stage and Screen

Choose One – Required
SASA 231 Creating Artistic Environments for Stage and Screen
SASA 232 Costume/Makeup for Stage and Screen
SASA 233 Light and Sound for Stage and Screen

Choose One – Required
FILM 301 History of Film
SASA 337 History of Theatre

Directed Electives (11 Credit Hours)

Must take minimum of two 200 (or higher) level courses:

SASA 160 Studio Production
SASA 212 Improvisation and Devising for Stage and Screen (2 Cr.)
SASA 221 Acting for Stage and Screen II
SASA 225 Musical Theatre Performance
SASA 231 Creating Artistic Environments for Stage and Screen
SASA 232 Costume/Makeup for Stage and Screen II
SASA 233 Light and Sound for Stage and Screen II
SASA 234 Production Mgt. and Leadership for Stage and Screen
SASA 260 Electronic Field Production
SASA 261 Electronic Media Copywriting
SASA 301 History of Film
SASA 328 Theatre for Youth
SASA 303 Documentary Production
SASA 334 Playwriting
SASA 337 History of Theatre
SASA 340 Design for Stage and Screen
SASA 360 Advanced Electronic Field Production
SASA 381 Screenwriting
SASA 435 Directing for Stage and Screen II
SASA 460 Collaborative Filmmaking: Web Series
### Stage and Screen Arts Minor

**Total Required Credit Hours: 24-26**

All classes are 3 credits unless otherwise specified.

**Required Courses (21 Credit Hours):**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SASA 112</td>
<td>Introduction to Storytelling</td>
</tr>
<tr>
<td>SASA 113</td>
<td>Collaborative Problem Solving for Stage and Screen</td>
</tr>
<tr>
<td>SASA 121</td>
<td>Acting for Stage and Screen I</td>
</tr>
<tr>
<td>SASA 131</td>
<td>Visual Elements for Stage and Screen</td>
</tr>
<tr>
<td>SASA 335</td>
<td>Directing for Stage and Screen I</td>
</tr>
<tr>
<td>SASA 490</td>
<td>Entrepreneurship/Senior Capstone for Stage and Screen</td>
</tr>
</tbody>
</table>

**Choose One – Required**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FILM 301</td>
<td>History of Film</td>
</tr>
<tr>
<td>SASA 337</td>
<td>History of Theatre</td>
</tr>
</tbody>
</table>

**Directed Electives (3-5)**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>SASA 160</td>
<td>Studio Production</td>
</tr>
<tr>
<td>SASA 212</td>
<td>Improvisation and Devising for Stage and Screen (2 Cr.)</td>
</tr>
<tr>
<td>SASA 225</td>
<td>Musical Theatre Performance</td>
</tr>
<tr>
<td>SASA 231</td>
<td>Creating Artistic Environments for Stage and Screen</td>
</tr>
<tr>
<td>SASA 232</td>
<td>Costume/Makeup for Stage and Screen</td>
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<tr>
<td>SASA 233</td>
<td>Light and Sound for Stage and Screen</td>
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<tr>
<td>SASA 234</td>
<td>Production Mgt. and Leadership for Stage and Screen</td>
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<tr>
<td>SASA 260</td>
<td>Electronic Field Production</td>
</tr>
<tr>
<td>SASA 261</td>
<td>Electronic Media Copywriting</td>
</tr>
<tr>
<td>FILM 301</td>
<td>History of Film</td>
</tr>
<tr>
<td>SASA 328</td>
<td>Theatre for Youth</td>
</tr>
<tr>
<td>SASA 334</td>
<td>Playwriting</td>
</tr>
<tr>
<td>SASA 337</td>
<td>History of Theatre</td>
</tr>
<tr>
<td>SASA 340</td>
<td>Design for Stage and Screen</td>
</tr>
<tr>
<td>SASA 360</td>
<td>Advanced Electronic Field Production</td>
</tr>
<tr>
<td>ENGL 381</td>
<td>Screenwriting</td>
</tr>
<tr>
<td>SASA 435</td>
<td>Directing for Stage and Screen II</td>
</tr>
<tr>
<td>SASA 460</td>
<td>Collaborative Filmmaking: Web Series</td>
</tr>
</tbody>
</table>

### Film Minor

**Total Required Credit Hours: 24**

All classes are 3 credits unless otherwise specified.

**Required Courses (6 Credit Hours):**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>FILM 200</td>
<td>Introduction to Film Studies</td>
</tr>
<tr>
<td>FILM 301</td>
<td>History of Film</td>
</tr>
</tbody>
</table>

(Comp-listed as ENGL 301, HIST 301, or JOUR 301)
Directed Electives (18 Credit Hours):

- FILM 248 Cultures in Conflict
- FILM 300 Women in Film (Co-listed as ENGL 300/WGST 300)
- FILM 302 History of Documentary (Co-listed as JOUR 302)
- FILM 305 News in the Movies (Co-listed as JOUR 305)
- FILM 306 Postcolonial Film and Literature (g) (Co-listed as ENGL 306)
- FILM 307 Ethnic Film, Literature and Culture (d) (Co-listed as ENGL 307)
- FILM 309 Film and Literature of the New Europe (g) (Co-listed as ENGL 309)
- FILM 310 Sociology Through Film (Co-listed as SOCI 310)
- FILM 315 German Classic and Modern Film (Co-listed as MODL 315)
- FILM 316 History of French Film (g) (Co-listed as FREN 316)
- FILM 317 Modern East Asian Literature and Cinema (g) (Co-listed as ENGL 317)
- FILM 343 The Novel and Film Adaptations (Co-listed as ENGL 343)
- FILM 389 Special Topics (Co-listed HIST/JOUR/MUS/SOCI, which offer individual courses)
- FILM 402 History in Film (Co-listed as HIST 402)
- FILM 442 World Cinema (g) (Co-listed as ENGL 442)
- FILM 495 Independent Study 1-3 cr.
- FILM 499 Directed Project in Film

Musical Theatre Minor

Musical Theatre Minor: 24 Total Credits

Required Courses: 18 cr. hrs.
- MUS 103 Class Voice 1 cr.
- MUS 130 Music Theory and Ear Training I 4 cr.
- MUS 131 Music Theory and Ear Training II 4 cr.
- MUS 225 Voice for the Actor 1 cr.
- SASA 121 Acting I: Basic Techniques 3 cr.
- SASA 225 Musical Theatre Performance 3 cr.
- SASA 375 Theatre Practicum: Production 2 cr.

Directed Electives: 2 cr. hrs.
Select from the following:
- DANC 107 Social Dance .5 cr.
- DANC 110 Basic Jazz Dance .5 cr.
- DANC 120 Fundamentals of Movement through Dance 1 cr.
- DANC 150 Dance Improvisation 1 cr.
- DANC 224 Ballet I 1 cr.

Electives: 4 cr. hrs.
Select from the following:
DANC 107 Social Dance .5 cr.
DANC 110 Basic Jazz Dance .5 cr.
DANC 224 Ballet I 1 cr.
DANC 260 Dance Repertory 1-3 cr.
SASA 131 Design for the Theatre 3 cr.

A maximum of 3 credits from the following 3 courses may be applied toward electives:
SASA 221 Acting for Stage and Screen II 3 cr.
SASA 231 Creating Artistic Environments for Stage and Screen 3 cr.
SASA 232 Costume/Makeup for Stage and Screen 3cr.
SASA 233 Light and Sound for Stage and Screen 3cr.
SASA 337 History of Theatre 3 cr.
MUS 127 Applied Voice (a maximum of 2 may be applied toward electives) 1 cr.
MUS 230 Music Theory and Ear Training III 4 cr.
MUS 340 Opera Techniques 3 cr.

Students majoring in Music or Speech (any emphasis) may not double count any course when completing the Musical Theatre Minor.
Speech Communication and Theatre Arts and Music majors should consult with an adviser and substitute other electives (from the list above) for those required in both their major and minor.

Students whose catalog year pre-dates Fall, 2014 will complete their minors with SASA courses offered in the new curriculum. Your adviser will work with you to keep your DAR current.
Early Childhood Certification

Early Childhood Minor Program
Completion of 23 credits

Required Courses: 23 cr. hrs.
TED 225 Developmental Learning Experiences of Young Children 3 cr.
TED 330 Infant Toddler Programs 3 cr.
TED 332 Preschool Curriculum 3 cr.
TED 335 Kindergarten Curriculum and Materials 3 cr.
TED 345 Parent Education and Family Development 3 cr.
TED 400 Supervision and Management Early Childhood Program 2 cr.
TED 405 Special Needs Child: Early Childhood Classroom 3 cr.
TED 410 Early Childhood Language Arts 3 cr.

Elementary Education Program

UW-River Falls offers a program in Early Childhood through Middle Childhood for students who are elementary majors with an early childhood minor, which meets certification requirements to teach Early Childhood through Middle Childhood - Regular Education. In addition to providing further enrichment in techniques for instruction in the primary grades, this minor and certification increases the range of potential employment for an elementary education major. Those who may seek employment in existing day care centers, nursery schools, child and family education programs, or those intending to start their own private pre-school, should investigate the opportunities opened via an early childhood minor.
**Early Childhood Degree Completion**

**Program Overview**

**Required Courses**
Early childhood major courses typically completed as part of an associate degree (25 credits):
- TED 211 Educational Psychology
- TED 225 Developmental Learning Experiences of Young Children
- TED 330 Infant and Toddler Programs
- TED 332 Preschool Curriculum
- TED 345 Parent Education and Family Development
- TED 400 Supervision and Management of Early Childhood Programs
- TED 405 Early Childhood Special Needs
- TED 410 Early Childhood Language Arts

**Additional UWRF early childhood major courses (31 credits):**
- CSD 160 Introduction to Communicative Disorders
- MUS 275 Music and Art for Early Learners
- P ED 246 Health and Movement Activities for Children
- TED 255 Children's Literature for Elementary Education
- TED 325 Diversity in Early Childhood Settings
- TED 326 Place-Based Environmental Science for Early Childhood Educators
- TED 329 Exploring Nature Through Inquiry Learning
- TED 335 Kindergarten Curriculum and Materials
- TED 409 English Language Learners in Early Childhood
- TED 411 Leadership and Advocacy for Young Children
- TED 451 Integrating Alternative Methodologies of Early Childhood Education

**Electives (19 credits)**
Students are given flexibility to select courses to meet their unique goals. Many online options are available at UWRF, and transfer credits may be accepted for approved courses from other institutions.

**UWRF University and General Education Requirements (45 credits)**

**Early Childhood Degree and Teaching Certification**
Another option in the Early Childhood Degree Completion and certification program allows individuals with an associate's degree in early childhood education or child development to apply credits and field experience hours earned toward a Bachelor of Science degree and an optional Wisconsin early childhood teaching certification (birth to age 8).

**Contact:**
Debra Hare
E-mail or 715-425-3557
Early Childhood Degree Completion and Certification

Program Overview

Required Courses
Early childhood major courses typically completed as part of associate degree (25 credits):
- TED 211 Educational Psychology
- TED 225 Developmental Learning Experiences of Young Children
- TED 330 Infant and Toddler Programs
- TED 332 Preschool Curriculum
- TED 345 Parent Education and Family Development
- TED 400 Supervision and Management of Early Childhood Programs
- TED 405 Early Childhood Special Needs
- TED 410 Early Childhood Language Arts

Additional UWRF early childhood major courses (59 credits):
- MUS 275 Music and Art for Early Learners
- PED 246 Health and Movement Activities for Children
- TED 155 Intro to Tech Integration and the Reflective Multimedia
- TED 255 Children's Literature for Elementary Education
- TED 321 Early Childhood Integrated Reading and Language Arts I
- TED 322 Early Childhood Integrated Reading and Language Arts II
- TED 323 Content and Techniques of K-3 Mathematics I
- TED 324 Content & Techniques of K-3 Mathematics II
- TED 325 Diversity in Early Childhood Settings
- TED 326 Place-Based Environmental Science for Early Childhood Educators
- TED 335 Kindergarten Curriculum and Materials
- TED 350 Pre-K – Early Elementary Learning Challenges
- TED 409 English Language Learners in Early Childhood
- TED 411 Leadership and Advocacy for Young Children
- TED 424 Inquiry Learning: Society and Environment for Early Elementary
- TED 451 Integrating Alternative Methodologies of Early Childhood Education
- TED 480 Early Childhood Student Teaching

UWRF University and General Education Requirements (36 credits)

Early Childhood Degree Only
Another option in the Early Childhood Degree Completion and Certification program allows individuals with an associate degree in early childhood education or child development to apply credits earned toward a Bachelor of Science degree.

Contact:
Debra Hare
Email or 715-425-3557
Earth Science Minor

Earth Science Minor Requirements: 21 Total Credits

**Required Courses 16 cr. hrs.**
- GEOL 102 Introductory Geology Lab 1
- GEOL 150 Historical Geology 4
- GEOL 202 Oceanography 3
- GEOL 269 Environmental Geology (writing intensive) 3
- GEOL 330 Meteorology 2
- PHYS 117 Introductory Astronomy 3

**Electives 5 cr. hrs.**
Select from 200 level or above Geology courses

Department of Plant and Earth Science
324 Agricultural Science
715-425-3345
www.uwrf.edu/PES/

Holly Dolliver-Chair, Olutoyosi Ajayi, Jill Coleman Wasik, Heather Davis, Christopher Holtkamp, Todd Johnson, Kevyn Juneau, Veronica Justen, Kerry Keen, Natasha Macnack, Sonja Maki, Yoana Newman, Eric Sanden, Brian Smith, Dan Waletzko, Ian Williams, David Zlesak
Economics Major

Major Requirements 42-44 Total Credits

OPTION A: College of Business and Economics

Required Courses: 21 cr. hrs.
ECON 201 Principles of Microeconomics 3 cr.
ECON 202 Principles of Macroeconomics 3 cr.
ECON 226 Introduction to Statistics
or MATH 226 Fundamentals of Statistics 3 cr.
or equivalent upon Chair's approval
ECON 301 Intermediate Microeconomics 3 cr.
ECON 302 Intermediate Macroeconomics 3 cr.
ECON 326 Statistics for Economics and Business 3 cr.
ECON 480 Senior Seminar (writing intensive) 3 cr.

Elective Courses*: 18 cr. hrs.
Choose 18 credits from the following categories with at most nine credits from the disciplines outside the area of Economics:

* Elective courses in the area of Economics: ECON 305, ECON 312, ECON 316, ECON 324, ECON 328, ECON 329, ECON 332, ECON 334, ECON 338, ECON 340, ECON 342, ECON 344, ECON 362, ECON 378, ECON 379, ECON 426, ECON 489, ECON 499

* Elective courses outside the area of Economics: ACCT 232, ACCT 321, ACCT 322, ACCT 356; BLAW 265, BLAW 266; CBE 370 (limited to one 3-credit study tour); CSIS 161, CSIS 162, CSIS 215, CSIS 225; FINC 345, FINC 347, FINC 348, FINC 446; MNGT 300, MNGT 318, MNGT 320, MNGT 330, MNGT 340, MNGT 350, MNGT 355, MNGT 361, MNGT 430; MKTG 310, MKTG 312, MKTG 355, MKTG 365, MKTG 445; AGEC 355, AGEC 450; GEOG 220, GEOG 237; MATH 236, MATH 256, MATH 266, MATH 316, MATH 326, MATH 327, MATH 331, MATH 356, MATH 357, MATH 366, MATH 367, MATH 371, MATH 431, MATH 456; PHIL 304; POLS 212, POLS 230, POLS 245, POLS 369; or PSYC 250, PSYC 265.

*Some elective courses may have prerequisites

OPTION A - Required Supporting Courses: 4-5 cr. hrs.
CBE 100 CBE First Year Seminar 2 cr.
CBE 300 Professional Development 1 cr.
ECON 205 Quantitative Analysis
or MATH 156 or MATH 166 3-4 cr.

Department of Economics
124 South Hall
715-425-3335
www.uwrf.edu/CBE/

Logan Kelly-Chair, Hossein Eftekari, Pascal Ngoboka, Hamid Tabesh, John Walker

The vision of the College of Business and Economics is to be a community of choice and the regional leader in the acquisition, study, application and sharing of business, economics and information technology knowledge. Consistent with this vision, the college is accredited by the Association to Advance Collegiate Schools of Business (AACSB) International.
Economics Minor

Minor Requirements 24-25 Total Credits

Liberal Arts

Liberal Arts Option

Required Courses: 15-16 cr. hrs.
ECON 201 Principles of Microeconomics 3 cr.
ECON 202 Principles of Macroeconomics 3 cr.
ECON 205 Quantitative Analysis
or MATH 156 or MATH 166 3-4 cr.
ECON 301 Intermediate Microeconomics 3 cr.
ECON 302 Intermediate Macroeconomics 3 cr.

Elective Courses*: 9 cr. hrs.
Choose nine credits from the following categories with at most three credits from the disciplines outside the area of Economics:

- Elective courses in the area of Economics: ECON 305, ECON 312, ECON 316, ECON 324, ECON 326, ECON 328, ECON 329, ECON 332, ECON 334, ECON 338, ECON 340, ECON 342, ECON 344, ECON 362, ECON 378, ECON 426, ECON 489, ECON 499
- Elective courses outside the area of Economics: ACCT 232, ACCT 321, ACCT 322, ACCT 356, BLAW 265, BLAW 266; CBE 370 (limited to one 3-credit study tour); CSIS 161, CSIS 162, CSIS 215, CSIS 225; FINC 345, FINC 347, FINC 348, FINC 446; MNGT 300, MNGT 318, MNGT 320, MNGT 330, MNGT 340, MNGT 350, MNGT 355, MNGT 361, MNGT 430; MKTG 310, MKTG 312, MKTG 355, MKTG 365, MKTG 445; AGEC 355, AGEC 450; GEOG 220, GEOG 237; MATH 236, MATH 256, MATH 266, MATH 316, MATH 326, MATH 327, MATH 331, MATH 356, MATH 357, MATH 366, MATH 367, MATH 431, MATH 456; PHIL 304; POLS 212, POLS 230, POLS 245, POLS 369; or PSYC 250, PSYC 265.

*Some elective courses may have prerequisites

Education

Education Option

Required Courses: 6 cr. hrs.
ECON 201 Principles of Microeconomics 3 cr.
ECON 202 Principles of Macroeconomics 3 cr.

Electives in Economics: 18 cr. hrs.
Choose from:
ECON 305 Money and Banking 3 cr.
ECON 312 Political Economy of Discrimination 3 cr.
ECON 316 Managerial Economics 3 cr.
ECON 324 Labor Economics 3 cr.
ECON 328 Domestic Topics in Third World Economic Development 3 cr.
ECON 329 Global Topics in Third World Economic Development 3 cr.
ECON 332 Public Finance 3 cr.
ECON 334 Public Regulation 3 cr.
ECON 340 Contemporary International Trade 3 cr.
ECON 342 International Finance 3 cr.
ECON 344 Comparative Economic Systems 3 cr.
ECON 362 History of Economic Thought 3 cr.
ECON 378 Semester Abroad Research 3 cr.
ECON 379 Internship 2-6 cr.
ECON 389 Special Topics in Economics 1-3 cr.
ECON 426 Forecasting and Econometrics 3 cr.
ECON 450 Introduction to Natural Resources Economics 3 cr.
ECON 489 Special Topics: Economics 1-3 cr.
Elementary Education Major

Elementary Education Major: 46 Total Credits
TED 100 Introduction to Teacher Education 2 cr.
TED 211 Educational Psychology: Elementary Ed (writing intensive) 5 cr.
TED 420 School and Society (writing intensive) 3 cr.
TED 310 Techniques in Elementary Education: Language Arts 4 cr.
TED 311 Techniques in Elementary Education: Social Studies 4 cr.
TED 312 Techniques in Elementary Education: Science 4 cr.
TED 315 Techniques in Elementary Education: Mathematics 4 cr.
TED 316 Developmental Reading 4 cr.
TED 317 Reading Practicum 4 cr.
TED 472 Student Teaching: Initial 12 cr.
or
TED 479 K-12 Internship Teaching 12 cr.
or
TED 474 Student Teaching - COST 12 cr.
Required Courses: 25 cr. hrs.
TED 252 Foundations of Multicultural Education 3 cr.
TED 255 Children's Literature for Elementary Education or ENGL 250 Literature for Children 3 cr.
ART 250 Child Art 2 cr.
ESM 300 Environmental Education 3 cr.
HEAL 361 Methods and Materials in Health for the Elementary Teacher 3 cr.
MATH 247 Mathematics for Elementary Teachers II 4 cr.
MUS 350 Music for Elementary Teachers 2 cr.
P ED 326 Techniques in Physical Education for the Elementary School Teacher 2 cr.
SPED 330 The Exceptional Child 3 cr.

Minor Areas: Elementary education majors must select a Wisconsin Department of Instruction approved minor:

Recommended Minors include:

Early Childhood
Health Education
Language Arts/Reading Science
General Science
Mathematics
Modern Language - Spanish
Social Studies
Teaching English as a Second Language

Other acceptable minors are:

Biology
Chemistry
Coaching/Athletics
Communicative Disorders
Economics
English
Geography
History
Journalism
Physics
Political Science
Psychology
Choose one of the following emphases:

Literature

Literature Emphasis - Liberal Arts: 36 Total Credits

Required Courses: 27 cr. hrs.

- ENGL 251 Advanced Composition 3 cr.
- ENGL 253 Introduction to Literary Studies 3 cr.
- ENGL 321 English Language: History and Culture 3 cr.
- ENGL 324 Survey of American Lit. I, Origins to 1900 (writing intensive) 3 cr.
- ENGL 325 Survey of American Lit. II, 1900-1980 (writing intensive) 3 cr.
- ENGL 331 Survey of English Lit. I, to 1800 (writing intensive) 3 cr.
- ENGL 332 Survey of English Lit. II, 1800-Present (writing intensive) 3 cr.
- ENGL 335 Shakespeare 3 cr.
- ENGL 444 Major Authors 3 cr.

A second period course in British literature may replace one of the British survey courses, or a second period course in American literature may replace one of the American survey courses. At least three survey courses must be taken.

Directed Electives: 9 cr. hrs.

Select one genre, sub-genre, or diversity literature course: 3 cr. hrs.

- ENGL 202 Literature of Science Fiction 3 cr.
- ENGL 203 Literature of the African-American Experience 3 cr.
- ENGL 207 Literature of the Asian-American Experience 3 cr.
- ENGL 212 The Native American in Literature 3 cr.
- ENGL 214 Women in Literature 3 cr.
- ENGL 222 Literature of Fantasy 3 cr.
- ENGL 226 Detective Fiction 3 cr.
- ENGL 230 International Short Fiction (g)
- ENGL 231 The Short Story 3 cr.
- ENGL 232 Contemporary Drama 3 cr.
- ENGL 233 Introduction to Poetry 3 cr.
- ENGL 234 Modern Novels 3 cr.
- ENGL 235 American Autobiography 3 cr.
- ENGL 300 Women and Film 3 cr.
- ENGL 307, Ethnic Film, Literature, and Culture 3 cr.
- ENGL 343 The Novel and Film Adaptations 3 cr.
- ENGL 443 American Ethnic Women Writers 3 cr.

Select one period course, English, American or International 3 cr. hrs.

- ENGL 341 European Literature (19th Century) 3 cr.
- ENGL 422 Elizabethan & Jacobean Drama
- ENGL 423 17th Century Prose & Poetry
- ENGL 426 Victorian Literature 3 cr.
- ENGL 427 Modern British Literature: 1890-1940 3 cr.
- ENGL 428 Modern British Literature: 1940-Present 3 cr.
- ENGL 429 American Renaissance 3 cr.
- ENGL 430 American Realism 3 cr.
- ENGL 431 Modern American Fiction 3 cr.
- ENGL 432 Contemporary American Literature 3 cr.
- ENGL 441 Twentieth-Century International Literature 3 cr.

Select one English course at the 300/400 level 3 cr. hrs.

Free Elective: 3 cr. hrs.

Creative Writing

English Major
Creative Writing Emphasis-Liberal Arts: 36 Total Credits

Required Courses: 18 cr. hrs.
ENGL 262 Creative Writing 3 cr.
ENGL 382* Writing Workshop in Prose and Poetry 3 cr.
ENGL 482 Writing Seminar in Fiction and Poetry 1-3 cr.
ENGL 368* Writing Poetry 3 cr.
ENGL 369 Writing Fiction 1-3 cr.

Directed Electives in Writing 9 cr. hrs.
(At least 6 of the credits must be from ENGL 368, ENGL 369, or ENGL 370)
ENGL 381 Screenwriting 3 cr.

Coursework Outside Creative Writing: 18 cr. hrs.
Required Courses: 12 cr. hrs.
ENGL 251 Advanced Composition 3 cr.
ENGL 253 Introduction to Literary Studies 3 cr.
ENGL 321 English Language: History and Culture 3 cr.
ENGL 331 Survey of English Literature I: to 1800 3 cr.

Directed Electives in Literature 6 cr. hrs.
Choose one course from Modern/Contemporary Period 3 cr. hrs.
ENGL 325 Survey of American Literature II 3 cr.
ENGL 332 Survey of English Literature II 3 cr.
ENGL 432 Contemporary American Literature 3 cr.
ENGL 444 Major Authors 3 cr.

Genre Courses (preferably in area of specialization) 3 cr. hrs.
ENGL 202 Literature of Science Fiction 3 cr.
ENGL 222 Literature of Fantasy 3 cr.
ENGL 230 International Short Fiction (g)
ENGL 231 The Short Story 3 cr.
ENGL 232 Contemporary Drama 3 cr.
ENGL 233 Introduction to Poetry 3 cr.
ENGL 234 Modern Novels 3 cr.
ENGL 235 American Autobiography 3 cr.

Professional Writing
English Major
Professional Writing Emphasis-Liberal Arts: 36 Total Credits

Required Courses 24 credits
ENGL 251 Advanced Composition 3 cr.
ENGL 266 Business Writing 3 cr. or ENGL 367 Technical Writing 3 cr.
ENGL 362 Introduction to Rhetorical Studies 3 cr.
ENGL 371 Proposal Writing 3 cr.
ENGL 374 Cyberliteracy and Writing on the Web 3 cr.
ENGL 387 Technical and Professional Editing 3 cr.
ENGL 494 Senior Seminar in Professional Writing3 cr.

Directed Electives in Writing: 9 credits, choose three
ENGL 253 Intro to Literary Studies 3 cr.
ENGL 262 Creative Writing 3 cr.
ENGL 266 Business Writing 3 cr.
ENGL 367  Technical Writing 3 cr.
ENGL 467 Advanced Technical Writing 3 cr.
ENGL 370 Writing Nonfiction 3 cr.
ENGL 371 Proposal Writing: Change Through Rhetoric 3 cr.
ENGL 372 Practicum: Peer Tutoring and Writing Instruction 3 cr.
ENGL 379 Internship 2-3 cr.
ENGL 389 Topics course in Rhetoric (Environmental Rhetoric, Contemporary Rhetoric) 3 cr.
JOUR 269 Multimedia Storytelling
JOUR 360 Opinion Writing 3 cr.
MARC 370 Public Relations Principles 3 cr.
SPAN 374 Professional Writing in Spanish I 3 cr.

Directed Electives in Language: 3 credits, choose one
MARC 311 Persuasion 3 cr.
ENGL 220 Structure of English 3 cr.
ENGL 321 English Language: History and Culture 3 cr.
ENGL 324 Survey of American Lit. I, Origins to 1900 (writing intensive) 3 cr.
ENGL 325 Survey of American Lit. II, 1900-1980 (writing intensive) 3 cr.
ENGL 331 Survey of English Lit. I, to 1800 (writing intensive) 3 cr.
ENGL 332 Survey of English Lit. II, 1800-Present (writing intensive) 3 cr.

Education
Broad Area English Education Major
Broad Area English Education Major: 63 Total Credits
(6 credits can be double-counted in General Education)

1. Required Courses: 36 cr. hrs.
ENGL 251 Advanced Composition 3 cr.
ENGL 253 Introduction to Literary Studies 3 cr.
ENGL 262 Creative Writing 3 cr.
ENGL 220 Structure of English 3 cr.
*ENGL 324 Survey of American Lit. I, Origins to 1900 3 cr.
*ENGL 325 Survey of American Lit. II, 1900-1980 3 cr.
*ENGL 331 Survey of English Lit. I, to 1800 3 cr.
*ENGL 332 Survey of English Lit. II, 1800-Present 3 cr.
ENGL 335 Shakespeare 3 cr.
ENGL 355 Literature for Adolescents 3 cr.
ENGL 361 Composition Theory 3 cr.
ENGL 362 Introduction to Rhetorical Studies 3 cr.
ENGL 441 Twentieth-Century International Literature 3 cr.
*Three of the four survey courses must be taken. However, a student may choose a period course
to replace one of the survey courses that covers the same time period as the American survey
course, or an English period course that covers the same time period to replace one of the English
survey courses. ENGL 444 Major Authors may also substitute for an appropriate period course (the
author's era consistent with the survey course to be replaced).

In place of English 324, students may take one of these courses:
ENGL 429 American Renaissance 3 cr.
ENGL 430 American Realism 3 cr.

In place of English 325, students may take one of these courses:
ENGL 431 Modern American Fiction 3 cr.
ENGL 432 Contemporary American Literature 3 cr.

In place of English 331, students may take this course:
ENGL 422 Elizabethan and Jacobean Drama 3 cr.

In place of English 332, students may take one of these courses:
ENGL 426 Victorian Literature 3 cr.
ENGL 427 Modern British Literature: 1890-1940 3 cr.
ENGL 428 Modern British Literature: 1940-Present 3 cr.
2. Directed Elective: 3 cr. hrs.
Take one of the period courses listed below:
ENGL 422 Elizabethan and Jacobean Drama 3 cr.
ENGL 423 17th Century Prose & Poetry 3 cr.
ENGL 426 Victorian Literature 3 cr.
ENGL 427 Modern British Literature: 1890-1940 3 cr.
ENGL 428 Modern British Literature: 1940-Present 3 cr.
ENGL 429 American Realism 3 cr.
ENGL 431 Modern American Fiction 3 cr.
ENGL 432 Contemporary American Literature 3 cr.

3. Select two supporting courses: 6 cr. hrs.
ENGL 266 Business Writing 3 cr.
ENGL 211 Introduction to TESOL: Reading and Writing. 3 cr.
ENGL 321 English Language: History and Culture 3 cr.
ENGL 360 Theory and Methodology of TESOL 3 cr.
ENGL 372 Practicum: Peer Tutoring and Writing Instruction
or ENGL 373 Techniques in Tutoring: TESOL Practicum 3 cr.

4. Select two Journalism/Marketing Communications/Professional Writing courses: 6 cr. hrs.
Only one 100-level course can be taken in this category.
ENGL 270 Visual Rhetoric 3 cr.
ENGL 367 Technical Writing 3 cr.
ENGL 368 Writing Poetry 3 cr.
ENGL 369 Writing Fiction 3 cr.
ENGL 370 Writing Non-Fiction 3 cr.
ENGL 371 Proposal Writing 3 cr.
ENGL 374 Cyberliteracy and Writing for the Web 3 cr. (EC)
ENGL 387 Technical and Professional Editing 3 cr.
ENGL 467 Advanced Technical Writing 3 cr.
JOUR 101 Introduction to Mass Communication 3 cr.
JOUR 110 Principles and Ethics of Journalism 6 cr.
JOUR 221 Radio News Production 2 cr.
JOUR 222 Intro to Video Storytelling 3 cr.
JOUR 201 Intro to Audio Storytelling 3 cr.
JOUR 202 Print News Writing 3 cr.
JOUR 203 Broadcast News Writing 3 cr.
MARC 100 Writing for Mass Media 3 cr.

5. Select two Speech or Theatre Arts courses: 6 cr.
COMS 106 Interpersonal Communication 3 cr.
COMS 207 / MARC 207 Listening Skills 3 cr.
COMS 211 Public Speaking 3 cr.
COMS 213 Intercultural Communication 3 cr.
COMS 308 Small Group Communication 3 cr.
COMS 312 Argumentation and Decision Making 3 cr.
COMS 314 Introduction to Criticism 3 cr.
COMS 319 Freedom to Speak 3 cr.
MARC 311 Persuasion 3 cr.
SASA 121 Acting for Stage and Screens 3 cr.
SASA 131 Visual Elements for Stage and Screen 3 cr.
SASA 230 Playwrights of Color 3 cr. (ACD)
SASA 231 Creating Artistic Environments for Stage and Screen 3 cr.
SASA 234 Production Management 3 cr.
SASA 334 Playwriting 3 cr.
SASA 310 Media Literacy 3 cr.
SASA 337 History of Theatre and Dramatic Literature 3 cr.

6. Select one Film Studies Course: 3 cr.
ENGL 301 / SASA 301 / FILM 301 History of Film 3 cr.
ENGL 306 / FILM 306 Postcolonial Film and Literature 3 cr. (MD, GP)
ENGL 307 / FILM 307 Ethnic Film, Literature, and Culture 3 cr. (ACD, MD)
ENGL 309 / FILM 309 Film and Literature of the New Europe 3 cr. (g)
ENGL 317 / FILM 317 Modern East Asian Literature and Cinema 3 cr. (g)
ENGL 389 Topics in English: Shakespeare and Film 3 cr.
ENGL 442 / FILM 442 / INTS 442 World Cinema 3 cr. (GP)
JOUR 302 / FILM 302 History of the Documentary 3 cr.
SASA 200 / FILM 200 Introduction to Film Studies 3 cr.
SASA 248 / FILM 248 Cultures in Conflict 3 cr.

7. Choose one Multicultural/International courses: 3 cr. hrs.
Many of these courses can be double-counted as General Education or University requirements.
ENGL 203 Literature of African Americans 3 cr. (ACD)
ENGL 208 Literature of Native Americans 3 cr. (ACD)
ENGL 212 Native American in Literature 3 cr. (ACD)
ENGL 214 Women in Literature 3 cr.
ENGL 228 Literature of Environmental Justice 3 cr. (EC)
ENGL 230 International Short Story 3 cr. (GP, Non-Western)
ENGL 234 Modern Novels 3 cr. (GP, Non-Western)
ENGL 235 American Autobiography 3 cr. (ACD)
ENGL 300 Women and Film 3 cr. (MD)
ENGL 306 Postcolonial Film and Literature 3 cr. (MD, GP, Non-Western)
ENGL 307 Ethnic Film, Literature, and Culture 3 cr. (ACD, MD)
ENGL 309/ FILM 309 Film and Literature of the New Europe 3 cr. (g)
ENGL 317 / ENGL 442 / FILM 442 / INTS 442 World Cinema 3 cr. (GP)
ENGL 443 American Ethnic Women Writers 3 cr. (ACD)

Note: English Education majors must take TED 432, Techniques of English Education, in addition to the above courses for English licensure.
English Minor

English Minor Liberal Arts: 24 cr. hrs.
This minor has a Literature Emphasis.
Required courses: 18 cr. hrs.
ENGL 251 Advanced Composition 3 cr.
ENGL 253 Introduction to Literary Studies 3 cr.
ENGL 321 The English Language: History and Culture 3 cr.
ENGL 335 Shakespeare 3 cr.
Select one American survey course*
ENGL 324 Survey of American Literature I, Origins-1900 3 cr.
OR
ENGL 325 Survey of American Literature II, 1900-1980 3 cr.
Select one British survey course*
ENGL 331 Survey of English Literature I, 650-1800 3 cr.
OR
ENGL 332 Survey of English Literature II, 1800-Present 3 cr.
*One survey course must cover the period before 1800.
Directed Electives: 6 cr. hrs.
Select one genre course: 3 cr. hrs.
ENGL 230 International Short Fiction 3 cr.
ENGL 231 The Short Story 3 cr.
ENGL 232 Contemporary Drama 3 cr.
ENGL 233 Introduction to Poetry 3 cr.
ENGL 234 Modern Novels 3 cr.
ENGL 343 The Novel and Film Adaptations 3 cr.
ENGL 344 Major Authors 3 cr.
Select one period course, English, American or International: 3 cr. hrs.
ENGL 341 European Literature (19th Century) 3 cr.
ENGL 422 Renaissance Drama 3 cr.
ENGL 423 17th Century Prose and Poetry 3 cr.
ENGL 426 Victorian Literature 3 cr.
ENGL 427 Modern British Literature: 1890-1940 3 cr.
ENGL 428 Modern British Literature: 1940-Present 3 cr.
ENGL 429 American Renaissance 3 cr.
ENGL 430 American Realism 3 cr.
ENGL 431 Modern American Fiction 3 cr.
ENGL 432 Contemporary American Literature 3 cr.
ENGL 441 Twentieth-Century International Literature 3 cr.

English Minor- Education
You cannot have an English education minor with a liberal arts major--you must have a major in education.

Minor Requirements: English-Education 27 cr. hrs.
Required Courses: 18 cr. hrs.
ENGL 251 Advanced Composition 3 cr.
ENGL 253 Introduction to Literary Studies 3 cr.
ENGL 220 Structure of English 3 cr.
ENGL 321 English Language: History and Culture 3 cr.
ENGL 335 Shakespeare 3 cr.
ENGL 361 Composition Theory 3 cr.
Directed Electives: 12 cr. hrs.
A. Select ENGL 324 Survey of American Lit. I, Origins to 1900 3cr.
and one of the following for 6 cr. hrs:
ENGL 331 Survey of English Lit. I, to 1800 3 cr.
ENGL 332 Survey of English Lit. II, 1800-Present 3 cr.
ENGL 422 Renaissance Drama 3 cr.
ENGL 423 17th Century Prose and Poetry 3 cr.
ENGL 426 Victorian Literature 3 cr.
ENGL 427 Modern British Literature: 1890-1940 3 cr.
ENGL 428 Modern British Literature: 1940-Present 3 cr.

OR

B. Select ENGL 331 Survey of English Lit. I, to 1800 3 cr.
and one of the following for 6 cr. hrs:
ENGL 324 Survey of American Lit. I, Origins to 1900 3 cr.
ENGL 325 Survey of American Lit. II, 1900-1980 3 cr.

Supporting Course: 3 cr. hrs.

ENGL 355 Literature-Based Reading Methods for Adolescents 3 cr.
English Language Arts Minor

Minor Requirements 24 Total Credits

Area 1: Writing (choose one of the following) 3 cr. hrs.
ENGL 251 Advanced Composition 3 cr.
ENGL 262 Creative Writing 3 cr.

Area 2: Reading and Interpretation 12 cr. hrs.
ENGL 106 Introduction to Literature: Fiction, Poetry, Drama 3 cr.
ENGL 233 Introduction to Poetry 3 cr.
ENGL 331 Survey of English Literature I 3 cr.
ENGL 355 Literature-Based Reading Methods for Adolescents 3 cr.

Area 3: Language and Composition 9 cr. hrs.
ENGL 220 Structure of English 3 cr.
ENGL 322 Acquisition of Language 3 cr.
ENGL 361 Composition Theory 3 cr.

Required Supporting Courses:
ENGL 250 Children's Literature 3 cr.
TED 310 Techniques in Elementary Education: Language Arts 4 cr.
TED 316 Developmental Reading 4 cr.
TED 317 Reading Practicum 4 cr.

This minor must be done with an education major.
Environmental Planning Minor

ESM 151 Introduction to Land Use Theory and Practice 3 cr.
ESM 251 Community Decision-Making 3 cr.
ESM 351 Planning for Sustainable Communities 3 cr.
ESM 411 Site Planning and Development 4 cr.
ESM 435 Advanced Land Use Planning and Design 4 cr.

Choose two of the following:

ESM 220 Environmental Sustainability: Theory, Issues and Mngt 3 cr.
ESM 303 Environmental Policies and Administration 3 cr.
ESM 360 Applied Hydrology and Water Quality 4 cr.
AGEC 445 / ESM 445 Land Use and Sustainable Agriculture 3 cr.
SOIL 120 Introduction to Soil Science
GEOL 269 Environmental Geology 3 cr.
Environmental Science Major

Environmental Science Core 28 cr. hrs.
ENGL 367 Technical Writing 3 cr.
ESM 220 Environmental Sustainability: Theory, Issues, and Management 3 cr.
ESM 305 Environmental Impact Assessment 2 cr.
ESM 360 Applied Hydrology and Water Quality 4 cr.
ESM 412 Chemical Fate and Transport in the Environment 3 cr.
ESM 413 Environmental Analysis 4 cr.
ESM 485 Seminar in Resource Management 1 cr.
GEOL 102 Introductory Geology Lab 1 cr.
Choose one of the following:
ESM 303 Environmental Policies and Administration 3 cr.
BIOL 355 Environmental Law 3 cr.
POLS 355 Environmental Law 3 cr.
Choose one of the following:
MATH 226 Fundamentals of Statistics 3 cr.
MATH 326 Applied Statistics 3 cr.
ANSC 341 Biometrics 3 cr.
GEOG 365 Quantitative Techniques for Geographers 3 cr.
Required Supporting Courses: 34-36 cr. hrs.
MATH 166 Calculus 4 cr.
CHEM 120 Introduction to General Chemistry 6 cr.
or CHEM 121 General Chemistry I 5 cr.
CHEM 122 General Chemistry II 5 cr.
Choose one of the following two chemistry lecture/lab series:
A. CHEM 231 Organic Chemistry I 3 cr.
CHEM 236 Organic Chemistry Lab I 1 cr.
B. CHEM 250 Analytical Chemistry 4 cr.
Choose one of the following two physics series A. or B.:
A. PHYS 121 Algebra-Based Physics 5 cr.
B. PHYS 131 Calculus-Based Physics 5 cr.
Choose one of the following two courses:
BIOL 210 General Botany 3 cr.
BIOL 230 General Zoology 3 cr.
Choose one of the following two courses:
BIOL 240 Cell and Molecular Biology 3 cr.
BIOL 324 Microbiology 3 cr.
Directed Electives: 18 cr. hrs.
A minimum of 6 credits in 400 level or greater. Courses taken as part of the supporting requirement cannot be double counted as directed electives.
SOIL 311, SOIL 325, SOIL 350, SOIL 440, SOIL 460 3-4 cr.
BIOL 210, BIOL 230, BIOL 240, BIOL 310, BIOL 324, BIOL 330, BIOL 344, BIOL 354, BIOL 360, BIOL 434, BIOL 444 3-4 cr.
GEOG 212, GEOG 250, GEOG 255, GEOG 316, GEOG 360, GEOG 368, GEOG 379, GEOG 412, GEOG 455, GEOG 460 3-12 cr.
PHYS 122 Algebra-Based Physics II, PHYS 132 Calculus-Based Physics II
CHEM 231 and CHEM 236, CHEM 232 and CHEM 237, CHEM 250, CHEM 356 1-3 cr.
AET 325, AGEN 365, AET 425,
GENG 450 3-4 cr.
GEOL 269, GEOG 327, GEOL 330, GEOL 417, GEOL 445 2-4 cr.
ESM 270, ESM 333, ESM 363, ESM 370, ESM 377 2-4 cr.
AGEC 450 3 cr.

Department of Plant and Earth Science
324 Agricultural Science
715-425-3345
www.uwrf.edu/PES/
Holly Dolliver-Chair, Olutoyosi Ajayi, Jill Coleman
Wasik, Heather Davis, Christopher Holtkamp,
Todd Johnson, Kevyn Juneau, Veronica Justen,
Kerry Keen, Natasha Macnack, Sonja Maki,
Yoana Newman, Eric Sanden, Brian Smith, Dan
Waletzko, Ian Williams, David Zlesak

The environmental science major is designed to prepare students to face challenges in environmental quality management and sustainable development. Environmental science majors are prepared to monitor, model and manage environmental systems in the areas of environmental quality and risk evaluation, sampling and analysis, remediation and regulatory compliance. Graduates pursue careers in environmental consulting firms, local, state and federal environmental agencies or corporations. Students with environmental research interests are also prepared to pursue advanced degrees.

The major is interdisciplinary within the College of Agriculture, Food and Environmental Sciences and the College of Arts and Sciences, and is administered by the department of plant and earth science. Departments contributing to the major include agricultural engineering technology, biology, chemistry, geography, physics, and plant and earth science. Required foundation courses are in the College of Agriculture, Food and Environmental Sciences or in the College of Arts and Sciences.

General Education Requirements
College of Agriculture, Food and Environmental Science:
As listed with the following exceptions:
Ethical Citizenship: ESM 105 required.
Sciences: GEOL 101 and BIOL 150 required.
College of Arts and Sciences: As listed.

Foundation Courses in Agriculture 9 cr. hrs.
SOIL 120 Introduction to Soil Science 3 cr.
ESM 151 Introduction to Land Use Theory and Practice 3 cr.
Select 1 from:
AET 150 Agricultural and Environmental Engineering Technology 3 cr.
or AGEC 230 Agricultural Economics I 3 cr.
CROP 161 Introduction to Plant Science 3 cr.
or HORT 161 Introduction to Plant Science

OR College of Arts and Sciences
Requirements: 9 cr. hrs.
SOCI 245 Environmental Sociology 3 cr.
PHIL 303 Environmental Ethics 3 cr.
ESM 307 Multicultural Perspectives on the Environment 3 cr.
Exercise and Sport Science Major

Program Requirements
52-60 Total Credits

Required courses 37 cr. Hrs.

EXSS 161 Intro to Health and Human Performance 3 cr.
EXSS 240 Human Physiology 3 cr.
EXSS 266 Aerobic Leadership 2 cr.
EXSS 366 Exercise Physiology 3 cr.
EXSS 450 Sport, Fitness and Recreation Management 3 cr.
EXSS 462 Senior Seminar 1 cr.
EXSS 465 Scientific Principles of Conditioning 3 cr.
EXSS 466 Exercise Testing & Prescription 3 cr.
HEAL 263 Human Anatomy 3 cr.
HEAL 315 Nutrition 3 cr.
P E 131 Weight Training .5 cr
P ED 243 Motor Learning & Development 3 cr.
P ED 375 Physical Activity Behavior 3 cr.
SFED 200 First Aid and Basic Life Support .5 cr.

Professional courses 8-16 cr. hrs.

EXSS 271 Practicum I 1 cr.
EXSS 467 Exercise for Special Populations 3 cr.
EXSS 471 Practicum II 4-12 cr.

Directed Electives: Select 7 credits

BIOL 230 General Zoology 3 cr.
BIOL 240 Cell & Molecular Biology 3 cr.
BIOL 324 Microbiology 4 cr.
BIOL 345 Immunology 3 cr.
BIOL 453 Virology 3 cr.
HEAL 269 Wellness 3 cr.
MARC 389 Special Topics: Sports Marketing 3 cr.
P ED 109 Recreational Climbing 1 cr.
P ED 201 Outdoor Ed. Concepts: Summer 3 cr.
P ED 213 Care and Prevention of Athletic Injury 2 cr.
P ED 301 Foundations of Outdoor Leadership 3 cr.
P ED 351 Coaching Young Athletes 2 cr.
P ED 363 Psychology of Coaching 3 cr.
PSYC 220 Abnormal Psychology 3 cr.
PSYC 225 Psychology of Gender 3 cr.
PSYC 245 Lifespan Development 3 cr.
PSYC 260 Behavior Modification 3 cr.
SPED 330 Exceptional child 3 cr.
SOCI 220 Sociology of Diversity 3 cr.
SOCI 322 Race & Ethnicity 3 cr.
SOCI 343 Sociology of Sport and Leisure 3 cr.

Department of Health and Human Performance
Falcon Center
A156, HHP Suite
715-425-3705
www.uwrf.edu/HHP/

Chair- Paul Shirilla, Faculty - Jeff Berkhof, Kristen Csiacsek, Patti Ford, Steve Freeman, Stacy Fumness, Don Glover, Joe O’Kroy, Robert Ritzer, Zach Rourke, Jodee Schaben, Matt Walker, Jake Wissing
Farm Management Minor

23 Total Credits

Required courses:
- AGEC 205 Agricultural Business Accounting 3 cr.
- AGEC 230 Agricultural Economics I 3 cr.
- AGEC 240 Cooperatives 2 cr.
- AGEC 355 Agricultural Markets and Prices 3 cr.
- AGEC 360 Farm Management 3 cr.
- AGEC 365 Agricultural Financial Management 3 cr.
- AGEC 440 Agricultural Policy I (writing intensive) 3 cr.
- AGEC 455 Commodity Marketing 3 cr.

Department of Agricultural Economics
131 Agricultural Science
715-425-3298
www.uwrf.edu/AGEC/

Brenda Boetel-Chair, Albert Boaitey, Sierra Howry, Simon Jette-Nantel, Amber Remble, David Trechter, Jim White
Film Studies Minor

Total Required Credit Hours: 24
All classes are 3 credits unless otherwise specified.

Required Courses (6 Credit Hours):

FILM 200 Introduction to Film Studies
FILM 301 History of Film
(Co-listed as ENGL 301, HIST 301, or JOUR 301)

Directed Electives (18 Credit Hours):

FILM 248 Cultures in Conflict
FILM 300 Women in Film
( Co-listed as ENGL 300/WGST 300 )
FILM 302 History of Documentary
( Co-listed as JOUR 302 )
FILM 305 News in the Movies
( Co-listed as JOUR 305 )
FILM 306 Postcolonial Film and Literature (g)
( Co-listed as ENGL 306 )
FILM 307 Ethnic Film, Literature and Culture (d)
( Co-listed as ENGL 307 )
FILM 309 Film and Literature of the New Europe (g)
( Co-listed as ENGL 309 )
FILM 310 Sociology Through Film
( Co-listed as SOCI 310 )
FILM 315 German Classic and Modern Film
( Co-listed as MODL 315 )
FILM 316 History of French Film (g)
( co-listed as FREN 316 )
FILM 317 Modern East Asian Literature and Cinema (g)
( Co-listed as ENGL 317 )
FILM 343 The Novel and Film Adaptations
( Co-listed as ENGL 343 )
FILM 389 Special Topics
( Co-listed HIST/JOUR/MUS/SOCI, which offer individual courses )
FILM 402 History in Film
( Co-listed as HIST 402 )
FILM 442 World Cinema (g)
( Co-listed as ENGL 442 )
FILM 495 Independent Study 1-3 cr.
FILM 499 Directed Project in Film

Interdisciplinary
Stage And Screen Arts
B24 Kleinpell Fine Arts
715-425-3971

Film Studies is an interdisciplinary minor offered by the Department of Stage And Screen Arts. Film Studies examines film as an art form, as an industry, and as the most popular and most influential communication medium of the twentieth century. Film Studies provides an interdisciplinary approach to visual literacy as it introduces students to film history, theory, criticism, and production.
Finance

Business Administration Major-Finance

Lower Division 23 cr. hrs.

CBE 100 First-Year Seminar: College of Business and Economics 2 cr.
COMS 101 Fundamentals of Oral Communication 3 cr. (double counts as GenEd) OR ENGL 266 Business Writing 3 cr.
ECON 201 Principles of Microeconomics 3 cr.
ECON 202 Principles of Macroeconomics 3 cr.
ACCT 231 Principles of Accounting I 3 cr.
ACCT 232 Principles of Accounting II 3 cr.
CSIS 215 Information Systems for Business Management 3 cr.
ECON 226 Introduction to Statistics 3 cr.
or MATH 226 Fundamentals of Statistics
BLAW 265 Business Law I 3 cr.

Upper Division 19 cr. hrs.

CBE 300 Professional Development 3 cr.
MNGT 300 Management and Organizational Behavior 3 cr.
MKTG 310 Principles of Marketing 3 cr.
FINC 345 Managerial Finance 3 cr.
ECON 326 Statistical Methods for Economics and Business 3 cr.
MNGT 361 Operations Management 3 cr.
MNGT 485 Strategic Management 3 cr.

Required Finance Courses 12 cr. hrs.

FINC 347 Financial Institutions 3 cr.
FINC 348 Investments 3 cr.
FINC 446 Intermediate Managerial Finance 3 cr.
FINC 450 Case Studies in Finance 3 cr.

Finance Electives: 9 cr. hrs.
Choose from:
FINC 314 Risk Management and Insurance 3 cr.
FINC 350 Real Estate 3 cr.
FINC 355 Multinational Financial Management 3 cr.
FINC 360 Financial Derivatives 3 cr.
FINC 379 Internship-Finance 3 cr.
FINC 389 Special Topics in Finance 3 cr.
FINC 448 Portfolio Management 3 cr.

Support Electives: 9 cr. hrs.
Choose 9 credits from any of following courses:
Accounting: ACCT 321, ACCT 322, ACCT 360, ACCT 356, ACCT 357, ACCT 461
Agricultural Economics: AGEC 355, AGEC 455
Communication Studies and Theatre Arts: COMS 213, COMS 318
Economics: ECON 305, ECON 340
English: ENGL 266, ENGL 367
Mathematics (Actuary): MATH 166, MATH 167, MATH 356, MATH 371
Management: MNGT 320, MNGT 330, MNGT 355, MNGT 430
Marketing: MKTG 312, MKTG 325, MKTG 365
Philosophy: PHIL 304
Psychology: PSYC 265, PSYC 320

Required Supporting Courses: 3-4 cr. hrs.

ECON 205 Quantitative Analysis 3 cr.
or MATH 156 Calculus for Business and Social Sciences 3 cr.
or MATH 166 Calculus I 4 cr.

**General Education Requirements** 31 cr. hrs.

General Electives to reach 120 credits (minimum to graduate)

Undergraduate Business Administration students may not transfer more than six credits of 300/400 level courses from non-AACSB accredited programs and institutions into the major.
Food Processing Technology Minor 22-24 cr. hrs.

**Required Courses**
FDSC 110 The Science of Food 3 cr.
FDSC 113 Introduction to Food Science Laboratory 1 cr.
FDSC 235 Agricultural Microbiology 3 cr.
FDSC 320 Food Quality Assurance 3 cr.
FDSC 361 Food Ingredients and Analysis 3 cr.

**Directed Electives 6 cr. hrs.**
FDSC 202 Dairy Manufacturing I and
FDSC 302 Dairy Manufacturing II
or
FDSC 238 Meat and Meat Products and
FDSC 240 Meat Product Processing
or
AGEN 352 Food and Process Engineering and
AGEN 455 Advanced Food and Process Engineering

**Electives 3-5 cr. hrs.**
Any additional courses from Directed Electives not already taken
AGBI 251 Agricultural Biochemistry 3 cr. and AGBI 252 Agricultural Biochemistry Lab 1 cr.
BIOL 324 Microbiology 4 cr.
CHEM 360 Foundation of Biochemistry 4 cr.
FDSC 270 or FDSC 370 Internship 2-4 cr.
FDSC 422 Product Development and Sensory Evaluation of Food 4 cr.
FDSC 490 Independent Study

Animal and Food Science Department
247 Agricultural Science
715-425-3704
www.uwrf.edu/ANFS/

Gary Onan-Chair, Casie Bass, Larry Baumann,
Dennis Cooper, Michelle DeBoer, Michelle Farner,
Brian Greco, Young Dal Jang, Sylvia Kehoe,
Steve Kelm, Justin Luther, Melkaye Melka,
Nathan O’Connor, Beth Rausch, Peter Rayne,
Kurt Vogel, Bonnie Walters
Food Science and Technology Major

Major Concentration (32 cr.)
FDSC 113 Intro Food Science Lab 1 cr.
Choose: FDSC 202 Dairy Manufacturing I
or FDSC 240 Meat Product Processing 3 cr.
FDSC 220 Food Law and Regulation 3 cr.
FDSC 270 Internship 4 cr.
FDSC 312 Food Processing 4 cr.
FDSC 320 Food Safety & Quality Assurance 3 cr.
FDSC 361 Food Ingredient & Analysis I 3 cr.
FDSC 362 Food Ingredient & Analysis II 3 cr.
FDSC 422 Product Development & Sensory Evaluation 4 cr.
FDSC 485 Senior Seminar 1 cr.
FDSC Elective: FDSC 238, FDSC 302, AGEN 455 or AET 452 3 cr.

Required Supporting (28 cr.)
CHEM 112 General Chemistry II 4 cr.
CHEM 116 General Chemistry Lab I 1 cr.
CHEM 117 General Chemistry Lab II 1 cr.
CHEM 230 or CHEM 231 3 cr.
AGBI 251 or CHEM 360 3 cr.
AGBI 252 Ag Biochemistry Lab 1 cr.
BIOL 324 Microbiology 4 cr.
ANSC 341 Biometrics (or MATH 226) 3 cr.
PHYS 121 or PHYS 131 Physics I
ANSC 231 Domestic Animal Nutrition 4 cr.

Choose the Dairy Foods Management, Operations Management or Science Option below:

Dairy Foods Management

Dairy Foods Management Option
FDSC 302 Dairy Manufacturing II 3 cr.
FDSC 470 Dairy Processing Operations 3 cr.
AFES 310 Ag Human Resource Management 3 cr.
or MNGT 330 Workplace Diversity 3 cr.
Select one from the following:
AGEC 205, AGEC 345, AGEC 350, AGEC 355, AGEC 360, AGEC 361, AGEC 365, AGEC 368,
AGEC 405, AGEC 430, AGEC 460

Operations Management

Operations Management Option
AGEC 205 Ag Accounting 3 cr.
Select one:
AFES 310 Human Resource Mgmt 3 cr.
or MNGT 330 Workplace Diversity 3 cr.
Select one from the following:
AGEC 345 Ag Law 3 cr.
AGEC 350 Ag Product Marketing 3 cr.
AGEC 355 Markets and Prices 3 cr.
AGEC 360 Farm Management 3 cr.
AGEC 361 Small Agribusiness Management 3 cr.
AGEC 365 Ag Finance 3 cr.
AGEC 368 Professional Selling 3 cr.
AGEC 405 Farm Tax Management 3 cr.
AGEC 430 Entrepreneurial Management 3 cr.

General Education Requirements
As listed with the following exceptions:
Sciences Required Courses: CHEM 121 or 120,
BIOL 150, PHYS 151 or 161
Mathematics Required Courses: MATH 147 or 166

Professional Studies in CAFES
FDSC 110 Science of Food 3 cr.
AGEN 352 Food Engineering 3 cr.
AGEC 101 or AGEC 230 Agriculture Economics 3 cr.

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Science
Science Option
CHEM 232 Organic Chemistry II 3 cr.
CHEM 236 Organic Chemistry Lab I 1 cr.
CHEM 237 Organic Chemistry Lab II 1 cr.
MATH 166 Calculus II 4 cr.
General Science Minor

General Science Minor For Elementary Education 24 Total Credits

Life Science & Environmental Science
BIOL 150 General Biology 3 cr.
BIOL 103 Fundamentals of Biological Evolution, 3 cr.
ESM 300 Environmental Education, 3 cr.

Physical Science
PHYS 114 Concepts in Physics, 3 cr.
CHEM 115 Concepts in General Chemistry, 4 cr.
CHEM 215 Chemistry Laboratory Concepts and Techniques, 1 cr.

Earth and Space Science
GEOL 101 Introductory Geology 3 cr.
GEOL 102 Introductory Geology Lab 1 cr.
PHYS 117 Introductory Astronomy 3 cr.

Science, General elementary / middle teacher licensing
Teacher Education Department
257 Wyman Education Bldg
715-425-3230

General Science Minor for Elementary Science Teachers
Courses may be used in the General Education goal three scientific inquiry program. This minor is designed to qualify elementary education majors for licensure.
Bachelor of Applied Science in Geographic Information Science (GIS)

Degree Requirements
To graduate, students will have completed 120 credits with at least 48 credits earned at a four-year institution. At least 30 credits must be from UW-River Falls, including the final 15 credits. In addition, students must complete all General Education and University requirements.

Transferring Credit
Credit will be awarded for college-level course work completed at accredited institutions. While general education credits are generally accepted from two-year colleges, this program makes it possible for students to receive university credit for technical and work specific courses as well. For more information on how your college credits will transfer to UW-River Falls, visit the Transfer Credit Policy web page or contact Admissions.

Required Courses: 30 cr.
GEOG 250 Intro to Geographic Information Science, 3 cr.
GEOG 351 Map Design, 3 cr.
GEOG 360 GIS: Theory and Methods, 3 cr.
GEOG 365 Quantitative Analysis, 3 cr.
GEOG 401 Senior Seminar, 3 cr.

Intermediate Directed Electives: 3 cr.
GEOG 366 Field Methods in Geography and GIS, 3 cr.
GEOG 368 Digital Image Processing, 3 cr.

Advanced Directed Electives: 3 cr.
GEOG 455 Advanced Map Design, 3 cr.
GEOG 460 GIS: Analysis and Modeling, 3 cr.

Electives: 9 cr.
ESM 333 Remote Sensing of Natural Resources, 3 cr.
ESM 363 GIS Applications in Resource Management, 3 cr.
CSIS 161 Programming I, 3 cr.
CSIS 162 Programming II, 3 cr.
CSIS 325 Web Development II, 3 cr.
CSIS 333 Database Management Systems, 3 cr.
GEOG 366 Field Methods in Geography and GIS, 3 cr.
GEOG 368 Digital Image Processing, 3 cr.
GEOG 455 Advanced Map Design, 3 cr.
GEOG 460 GIS: Analysis and Modeling, 3 cr.

For More Information
Continuing Education Office
117 Regional Development Institute
410 S. 3rd Street
River Falls, WI 54022
continuing.ed@uwrf.edu
715-425-3256
GIS/Cartography Minor: 21 Total Credits

Required Core Courses: 9 cr. hrs.
- GEOG 250 Introduction to Geographic Information Science 3 cr.
- GEOG 351 Map Design 3 cr.
- GEOG 360 GIS: Theory and Methods 3 cr.

Directed Electives: 6-12 cr. hrs.
Techniques Courses - choose 3-6 credits from the following:
- GEOG 366 Field Methods in Geography and GIS 3 cr.
- GEOG 368 Digital Image Processing 3 cr.
Advanced Course - choose 3-6 cr. hrs. from the following:
- GEOG 455 Advanced Map Design 3 cr.
- GEOG 460 GIS: Analysis and Modeling 3 cr.

Electives: 0-6 cr. hrs.
- ART 121 2D Design Foundation 3 cr.
- ART 131 Drawing I 3 cr.
- ART 241 Graphic Design I 3 cr.
- CSIS 161 Programming I 3 cr. (Prerequisite: MATH 146)
- CSIS 162 Programming II 3 cr.
- CSIS 225 Web Development I 3 cr.
- ESM 333 Remote Sensing of Natural Resources 3 cr.
- ESM 363 GIS Applications in Resource Management 3 cr.
- GEOG 365 Quantitative Analysis 3 cr.
- GEOG 379 Geography Internship II 3-12 cr.
- GENG 235 Surveying 3 cr.
- GENG 236 Advanced Surveying 3 cr.

Students are advised to take MATH 146 to fulfill General Education Mathematics Requirement.
GIS Certificate

Geographic Information Science Certificate Requirements

Students complete three required courses and two elective courses that focus on your chosen area of specialization in GISci. In addition to finishing the coursework, students submit a final professional portfolio, complete an exit interview, and have a cumulative GPA of at least 2.5 upon completion of the program.

Core Courses: 9 credits
GEOG 250 Introduction to Geographic Information Science (GIS) 3 cr.
GEOG 360 GIS: Theory and Methods 3 cr.
GEOG 460 GIS: Analysis and Modeling 3 cr.

Elective Courses: 6 credits
Choose any two courses from the following:
GEOG 351 Map Design 3 cr.
GEOG 365 Quantitative Analysis 3 cr.
GEOG 366 Field Methods in Geography and GIS 3 cr.
GEOG 368 Digital Image Processing 3 cr.
GEOG 455 Advanced Map Design 3 cr.
Geography Major

Geography Emphasis
Geography Major - Liberal Arts (Geography Emphasis)

36 Total Credits

Required Core Courses: 18 cr. hrs.
GEOG 110 Physical Environment: Patterns and Systems 3 cr.
GEOG 120 Human Geography 3 cr.
GEOG 240 United States 3 cr.
GEOG 250 Introduction to Geographic Information Science 3 cr.
GEOG 365 Quantitative Analysis 3 cr.
GEOG 401 Senior Seminar 3 cr.

Directed Electives: 6 cr. hrs.
Regional Course - Choose 3 credits from the following:
GEOG 340 Europe 3 cr.
GEOG 342 Latin America 3 cr.
GEOG 343 Africa 3 cr.
GEOG 344 Asia and Oceana 3 cr.
Systematic Course - Choose 3 credits from the following:
GEOG 212 Weather and Climate 3 cr.
GEOG 214 World Patterns of Plants and Animals 3 cr.
GEOG 220 Economic Geography 3 cr.
GEOG 237 Poverty in the U.S. 3 cr.
GEOG 265 Spatial Justice 3 cr.
GEOG 318 Global Water Resources 3 cr.
GEOG 322 Urban Geography 3 cr.
GEOG 324 Historical Geography of the U.S. 3 cr.
GEOG 351 Map Design 3 cr.
GEOG 360 GIS: Theory and Methods 3 cr.
GEOG 366 Field Methods in Geography and GIS 3 cr.
GEOG 368 Digital Image Processing 3 cr.
GEOG 378 Semester Abroad Research 3-6 cr.
GEOG 379 Geography Internship 3-12 cr.
GEOG 389 Special Topics in Geography 1-3 cr.
GEOG 412 Advanced Climatology 3 cr.
GEOG 455 Advanced Map Design 3 cr.
GEOG 460 GIS: Analysis and Modeling 3 cr.
GEOG 490 Readings in Geography 1-3 cr.
GEOG 499 Independent Study 1-2 cr.

Electives: 12 cr. hrs.
Select from courses listed in Directed Electives above. At least one course selected must be at the 400 level.

GIS Emphasis
Geography Major - Liberal Arts (Geographic Information Science Emphasis)

39 Total Credits

Required Core Courses: 30 cr. hrs.

Geography and Geographic Information Science
344 Kleinpell Fine Arts
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Matt Dooley, Professor and Chair
Charles Rader, Professor
John Heppen, Professor
Matt Millett, Lecturer
Geographic Information Science
GEOG 250 Intro to Geographic Information Science 3 cr.
GEOG 351 Map Design 3 cr.
GEOG 360 GIS: Theory and Methods 3 cr.
GEOG 365 Quantitative Analysis 3 cr.
GEOG 401 Senior Seminar 3 cr.
GEOG 460 GIS: Analysis and Modeling 3 cr.

Computer Science
CSIS 161 Programming I 3 cr. *
CSIS 162 Programming II 3 cr.
CSIS 235 Object Oriented Programming 3 cr.

* MATH 146 is a prerequisite for CSIS 161 and therefore also required. This course fulfills the General Education Mathematics Requirement.

Elective Courses - Choose 9 cr. hrs. from the following:
ART 121 2D Design Foundation 3 cr.
ART 131 Drawing I 3 cr.
ART 241 Graphic Design I 3 cr.
CSIS 225 Web Development I 3 cr.
CSIS 237 Data Structure and Algorithm 3 cr.
CSIS 247 Intro to Computer Networks 3 cr.
CSIS 248 Operating Systems Programming 3 cr.
CSIS 333 Data Base Management Systems 3 cr.
ESM 333 Remote Sensing of Natural Resources 3 cr.
ESM 363 GIS Applications in Resource Management 3 cr.
GEOG 366 Field Methods in Geography and GIS 3 cr.
GEOG 368 Digital Image Processing 3 cr.
GEOG 379 Geography Internship 3-12 cr.
GEOG 455 Advanced Map Design 3 cr.
GENG 235 Surveying 3 cr.
GENG 236 Advanced Surveying 3 cr.
Geography Minor

Geography Minor - Liberal Arts: 21 Total Credits

Required Core Courses: 12 cr. hrs.
GEOG 110 Physical Environment: Patterns and Systems 3 cr.
GEOG 120 Human Geography 3 cr.
GEOG 240 United States 3 cr.
GEOG 250 Introduction to Geographic Information Science 3 cr.

Electives: 9 cr. hrs.

GEOG 212 Weather and Climate 3 cr.
GEOG 214 World Patterns of Plants and Animals 3 cr.
GEOG 220 Economic Geography 3 cr.
GEOG 237 Poverty in the U.S. 3 cr.
GEOG 265 Spatial Justice 3 cr.
GEOG 289 Special Topics in Geography .5-3 cr.
GEOG 318 Global Water Resources 3 cr.
GEOG 322 Urban Geography 3 cr.
GEOG 324 Historical Geography of the U.S. 3 cr.
GEOG 340 Europe 3 cr.
GEOG 342 Latin America 3 cr.
GEOG 343 Africa 3 cr.
GEOG 344 Asia and Oceana 3 cr.
GEOG 351 Map Design 3 cr.
GEOG 360 GIS: Theory and Methods 3 cr.
GEOG 366 Field Methods in Geography and GIS 3 cr.
GEOG 368 Digital Image Processing 3 cr.
GEOG 378 Semester Abroad Research 3-6 cr.
GEOG 379 Cooperative Education and Internship II 3-12 cr.
GEOG 389 Special Topics in Geography 1-3 cr.
GEOG 412 Advanced Climatology 3 cr.
GEOG 428 Political Geography 3 cr.
GEOG 455 Advanced Map Design 3 cr.
GEOG 460 GIS: Analysis and Modeling 3 cr.
GEOG 490 Readings in Geography 1-3 cr.
GEOG 499 Independent Study 1-2 cr.

Geography and Geographic Information Science
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Matt Dooley, Professor and Chair
Charles Rader, Professor
John Heppen, Professor
Matt Millett, Lecturer
Geology Major

Required Geology Courses: 42 cr.
GEOL 101 Introduction to Geology 3 cr.
GEOL 102 Introductory to Geology Lab 1 cr.
GEOL 150 Global Change 3 cr.
GEOL 230 Mineralogy 4 cr.
GEOL 231 Petrology 4 cr.
GEOL 285 Sophomore Seminar in Geology (writing intensive) 1 cr.
GEOL 326 Structural Geology 4 cr.
GEOL 327 Geomorphology and Glacial Geology (writing intensive) 4 cr.
GEOL 282 Geochemistry 3 cr.
GEOL 362 Stratigraphy and Sedimentation 4 cr.
GEOL 441 Geophysics 4 cr.
GEOL 445 Hydrogeology 3 cr.
GEOL 450 Paleontology (writing intensive) 4 cr.

Regional Field Trip 1 cr.
Choose one of the following:
GEOL 371 Regional Geology Field Trip 1 cr.
GEOL 372 SW Region 1 cr.
GEOL 373 NW Region 1 cr.
GEOL 374 Lake Superior Region 1 cr.
GEOL 375 Appalachian Region 1 cr.
GEOL 376 SE Region 1 cr.
GEOL 377 NE Region 1 cr.

Capstone Experience 4 cr.
GEOL 485 Senior Research Experience (writing intensive) 1 cr.
Choose one of the following:
GEOL 378 Semester Abroad 3 cr.
GEOL 270 GEOL 370 Internship 3 cr.
GEOL 489 Field Camp 3 cr.
GEOL 490 Research 3 cr.

Required Supportive Courses 10 cr.
SOIL 120 cr. 3
MATH 166 Calculus cr. 4
GEOG 250 cr. 3

Directed Electives: 15 cr.
(consult with your adviser for these or other selections)
ART 306 Scientific Illustration 3 cr.
ART 307 Computer Graphics 3 cr.
BIOL 150 or higher
CHEM 122 or higher
CSIS 105 or higher
ENGL 367 Technical Writing 3 cr.
ESM 151 or higher
GENG 120 or higher
GEOG 318 Global Water 3 cr.
GEOG 350 Map Design and Ppr 3 cr.
GEOG 351 Map Design 3 cr.
GEOG 360 GIS Theory and Met 3 cr.
GEOG 365 Quant Tech 3 cr.
GEOG 366 Field Methodology and GPS 3 cr.
GEOG 368 Digital Image Processing 3 cr.
GEOG 455 Advanced Map Design 3 cr.
GEOG 460 GIS Analysis
GEOL 269 Environmental Geology 3 cr.
GEOL 270 Internship I 2-4 cr.
GEOL 271 International Internship 2-4 cr.
GEOL 305 Geology of the Planets 3 cr.
GEOL 330 Meterology 3 cr.
GEOL 350 Geological Destinies of Nations 3 cr.
GEOL 370 Internship II 2-4 cr.
GEOL 378 Semester Abroad 3-6 cr.
GEOL 490 Independent Study Geology 1-3 cr.
MATH 167 or higher
PHYS 122 Algebra-Based Physics II
PHYS 132 Calculus-Based Physics II
SOIL 250 Soil Profile 2 cr.
SOIL 289 / SOIL 389 / SOIL 489 Soils Judging 1 cr.
SOIL 325 Hydric Soils and Wetland Environments 3 cr.
SOIL 350 Soil Development 2 cr.
SOIL 440 Soil and Water Conservation 4 cr.
SOIL 460 Soil Physics 3 cr.

**Emphases**

An emphasis is not a minor but is a suggested series of courses taken as directed electives that fit together well, fit well with the geology major and that would help a career in the designated area. Consult with geology faculty for more information.

**Environmental/Engineering:** GENG 235, GENG 236, GENG 265, SOIL 460, MATH 167

**Environmental/Hydrogeology:** See Hydrogeology Minor

**Graduate School:** MATH 167, ENGL 367, CSIS 105, Summer Field Camp, GEOL 490

**Mineral Exploration:** ESM 333, GEOG 250, GEOG 360, CHEM 251, CHEM 256, Summer Field Camp, GEOL 490

**Ocean Sciences:** CSIS 105, BIOL 230, BIOL 434, MATH 167, CHEM 251, CHEM 256, PHYS 311, GEOL 202

**Paleontology:** MATH 167, CSIS 105, Summer Field Camp, BIOL 230, GEOL 490, additional courses in Biology

**Petroleum Geology:** GEOL 445, Summer Field Camp, BIOL 324, BIOL 355, CHEM 231, CHEM 232, GENG 236, GENG 368, GEOL 490
Geology Minor

Geology Minor: 21 Total Credits

Required Courses 13 cr. hrs.
GEOL 102 Introductory Geology Lab 1 cr.
GEOL 150 Historical Geology 4 cr.
GEOL 230 Mineralogy 4 cr.
GEOL 231 Petrology 4 cr.
Electives in Geology 8 cr. hrs.
Select from 300 or 400 level Geology courses except GEOL 330

Department of Plant and Earth Science
324 Agricultural Science
715-425-3345
www.uwrf.edu/PES/

Holly Dolliver-Chair, Olutoyosi Ajayi, Jill Coleman
Wasik, Heather Davis, Christopher Holtkamp,
Todd Johnson, Kevyn Juneau, Veronica Justen,
Kerry Keen, Natasha Macnack, Sonja Maki,
Yoana Newman, Eric Sanden, Brian Smith, Dan
Waletzko, Ian Williams, David Ziesak
Art Minors

Art
Art Minor (24 credits)
All classes are 3 credits unless otherwise specified.

Foundation Courses (9 credits)
Select at least 9 credits from the following:
ART 121 2D Design Foundation
ART 131 Drawing I
ART 211 Western Art to 1500
ART 212 Renaissance to Early Modern Art History

Introductory Courses (6 credits)
Select at least 6 credits from the following:
* Indicates a repeatable course used to accumulate credits.
ART 227 Introduction to Ceramics
ART 229 Introduction to Glass
ART 235 Introduction to Photography
ART 236 Introduction to Printmaking
ART 238 Introduction to Painting
ART 241 Graphic Design I
* ART 289 Special Topics (1-3 cr.)

Upper Division Courses (9 credits)
Select at least 9 credits from the following:
* Indicates a repeatable course used to accumulate credits.
* ART 327 Studio-Ceramics
* ART 329 Studio-Glass
* ART 335 Studio-Photography
* ART 336 Studio-Printmaking
* ART 338 Studio-Painting
* ART 389 Special Topics (1-3 cr.)

Art History
Art History Minor: 24 Credits
Required Core Courses: 9 Credits
ART 211 West Art to 1500 3 cr.
ART 212 West Art Since 1500 3 cr.
ART 213 Art since 1945: Modern and Contemporary Art History 3 cr.

Directed Art History Electives: 9 Credits
Choose 6 Credits from Modern and Contemporary Art History Electives
ART 308 History of Design 3 cr.
PHIL 310 Philosophy and History of Visual Art 3 cr.
ART 321 Gender and Art 3 cr.

Choose 3 Credits from Global Art History Electives
ART 291 Asian Art History (GP)* 3 cr.
ART 392 Pre-Columbian Art History (MD) 3 cr.

Directed Studio Art Electives: 6 Credits
Choose 3 Credits from 2-D Studio Electives
ART 131 Drawing I 3 cr.
ART 235 Introduction to Photography 3 cr.
ART 236 Introduction to Printmaking 3 cr.
ART 238 Introduction to Painting 3 cr.

Art Department
172 Kleinpell Fine Arts
715-425-3266
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FACULTY
- Eoin Breadon, (Chair), Glass
- Heather Delisle, Art Education, Foundation Studies
- Michael Helke, Ceramics
- Brett Kallusky, Photography
- Jeannine Kitzhaber, Painting, Drawing
- Ann Lawton, Art Therapy, Foundation Studies
- Peter Mak, Painting, Drawing
- Dan Paulus, Graphic Design
- Mary Rohl, Graphic Design, Foundation Studies
- Nikki Schneider, Printmaking
- Kaylee Spencer, Art History

ACADEMIC DEPARTMENT ASSOCIATE
- Susie Zimmer
ART 241 Graphic Design I 3 cr.

Choose 3 Credits from 3-D Studio Electives
ART 227 Introduction to Ceramics 3 cr.
ART 229 Introduction to Glass 3 cr.
ART 230 Cold Glass

Required Supporting Course
ART 100 Introduction to Art (3 Credits count in General Education)

* indicates prerequisite: junior standing or higher

Graphic Design
Graphic Design Minor (24 credits)
All classes are 3 credits unless otherwise specified.

Required Supporting Course (3 credits)
University general requirement. Credits not included in minor credit count.
ART 100 Introduction to Visual Art (Section 6)

Core Requirements (12 credits)
ART 121 Design Foundation
ART 131 Drawing I
ART 132 Drawing II
ART 308 History of Design

Required Graphic Design Courses (9 credits)
ART 241 Graphic Design I
ART 242 Design Studio I
ART 243 Typography I

Elective (3 credits)
Select from the following:
ART 227 Introduction to Ceramics
ART 229 Introduction to Glass
ART 230 Cold Glass
ART 235 Introduction to Photography
ART 236 Introduction to Printmaking
ART 238 Introduction to Painting
Health and Physical Education Major

Health and Physical Education Major
General Education Requirements - 31 Credits (3 credits overlap)
As listed with the following exceptions:
CW, ENGL 100
CS, COMS 101
CA, ENGL 200
M, MATH 126, 146, 147, 149, 156, 166, 216, 226, 246, PSYC 201
S/SL, BIOL 101, PHYS 114
EC, ESM 105
HW, P E 108

Major Requirements - 100 Credits

Required
Required Courses: 20 Credits
P ED 161 Intro. to Health and Human Performance 3 cr.
P ED 172 Instructional Strategies 1 1 cr.
P ED 243 Motor Learning and Development 3 cr.
P ED 300 Adapted Physical Education 3 cr.
P ED 305 Developmental and Adapted Physical Education 3 cr.
P ED 213 Care & Prevention of Athletic Injuries 2 cr.
P ED 372 Instructional Strategies II 2 cr.
P ED 456 Organization and Administration of Physical Education 3 cr.

Activity
Activity Courses: 17 Credits
P ED 230 Rhythms and Educational Gymnastics 3 cr.
P ED 265 Physical Activities I 3 cr.
P ED 266 Physical Activities II 3 cr.
P ED 275 Leadership in School-Based Adventure Education 3 cr.
EXSS 266 Aerobic Exercise Leadership 2 cr.
EXSS 465 Scientific Principles of Strength and Conditioning 3 cr.

Health
Health: 25 Credits
SFED 212 First Aid/CPR Instructor 1 cr.
HEAL 262 Applied Anatomy and Exercise Physiology 3 cr.
HEAL 269 Wellness 3 cr.
HEAL 315 Nutrition 3 cr.
HEAL 330 Safe and Emotionally Healthy Schools and Communities 3 cr.
HEAL 350 Community Health 3 cr.
HEAL 460 Teaching of Family Life and Sexuality Education 3 cr.
HEAL 467 Measurement, Evaluation, Assessment 3 cr.
ESM 105 Environmental Studies (ec)
or ESM 300 Environmental Education (ec) 3 cr.

Education
Professional Education: 38 Credits
SPED 330 Introduction to Special Education 3 cr.
TED 212 Educational Psychology 5 cr.
TED 252 Multicultural Education (d) 3 cr.
TED 420 School and Society 3 cr.
TED 422 Sec. School & Content Area Reading 3 cr.

Department of Health and Human Performance
Falcon Center
A156, HHP Suite
715-425-3705
www.uwrf.edu/HHP/

Chair- Paul Shirilla, Faculty - Jeff Berkhof, Kristen Csiacsek, Patti Ford, Steve Freeman, Stacy Fumess, Don Glover, Joe O’Kroy, Robert Ritzer, Zach Rourk, Jodee Schaben, Matt Walker, Jake Wissing

In addition to the health and physical education major, the health and human performance department offers majors in Exercise and Sport Science and Health and Wellness Management.

Students from all disciplines are encouraged to enjoy the opportunities provided through minors in health, coaching, or outdoor education.

An adapted physical education minor is also available for students seeking K-12 physical education certification or for teachers who are already certified in K-12 physical education. It is highly encouraged for undergraduates to obtain the adapted physical education minor.
TED 425 Techniques of Elementary Education Physical Education 3 cr.
TED 429 Techniques of Health Education 3 cr.
TED 435 Techniques of Middle/Secondary Education: Physical Ed. 3 cr.
TED 475 Student Teaching 12 cr.
Health and Wellness Management Major

Overview of Program

Degree Requirements, 63 Total Credits

The Bachelor of Science in Health and Wellness Management consists of 20 required courses; there are no electives in the program. To see course descriptions and schedule, select the course number.

- HWM 300 Introduction to Human Health
- HWM 305 The Wellness Profession
- HWM 310 Changes Across the Life Span
- HWM 315 Resource Management for Wellness Managers
- HWM 320 Health and Medical Terminology
- HWM 325 Health Literacy
- HWM 335 Worksite Health Environment
- HWM 345 Physical Activity and Nutrition for Wellness Managers
- HWM 350 Research and Statistics for Wellness Managers
- HWM 360 Stress and Dependencies and Addictions
- HWM 370 Understanding and Effecting Health Behavior Change
- HWM 385 Marketing and Communication for Wellness Managers
- HWM 405 Survey of Information Technology in Wellness
- HWM 430 Population Health for Wellness Managers
- HWM 460 Leadership and Change Management in Health
- HWM 470 Assessment and Evaluation for Wellness Managers
- HWM 475 Employee Health and Well Being
- HWM 480 Employee Benefits for Wellness Managers
- HWM 485 Health Coaching for Wellness Managers
- HWM 496 Health and Wellness Capstone

Prerequisites

Some of the courses above require the following prerequisites.

- Introduction to Psychology (UWRF PSYC 101 or equivalent)
- Introduction to Biology (UWRF BIOL 100 or 150 or equivalent)
- Introduction to Public Speaking (UWRF COMS 101 or CSTA 101 or equivalent)
- Composition II (UWRF ENGL 200 or equivalent)

General Education and University Requirements

Students wishing to enter this program should have completed the prerequisites listed above and earned an Associates of Arts degree or have completed close to 60 college-level semester credits with a 2.0 or better grade point average (GPA).

To meet all graduation requirements, students must:

- complete all UW-River Falls general education and university requirements;
- successfully complete all Health and Wellness Management courses with a grade of C or better;
- earn a minimum of a 2.250 GPA in their Health and Wellness Management courses.

Visit the [website](#) for more information.

Contacts

Academic Director: Jodee Schaben
Email [here](#)

Program Manager: Angela Whitaker
Email [here](#)

The Health and Wellness Management major is housed in the [College of Education and Professional Studies](#).

Program Description

The Bachelor of Science in Health and Wellness Management is a collaborative effort with [UW-Extension](#) which will equip students with the skills necessary to design, develop, implement, and maintain health and wellness programs in the workplace. This degree program helps students learn more about the seven dimensions of wellness and how they affect our lives and well-being.

Information on our online, graduate degree is available at the [Master of Science in Health and Wellness Management web page](#).
Health Education Minor

Teacher Certification

The Health Education minor requires a major in another teacher licensing discipline.

- Elementary Education majors will be licensed Middle Childhood - Early Adolescence, Health Education
- Secondary Education majors will be licensed Early Adolescence - Adolescence, Health Education

The Praxis II Health Content Knowledge exam is required for teacher licensing.

25 Total credits

SFED 212 Teaching First Aid and Basic Life Support 1 cr.
HEAL 262 Applied Human Anatomy and Exercise Physiology 3 cr.
HEAL 269 Wellness 3 cr.
HEAL 315 Nutrition 3 cr.
HEAL 330 Safe, Healthy and Drug Free Schools 3 cr.
HEAL 350 Community Health 3 cr.
HEAL 460 Teaching of Family Life and Sexuality Education 3 cr.
TED 429 Techniques of Secondary Education: Health Education 3 cr.
ESM 300 Environmental Education

Liberal Arts

21.5 - 22 credits

SFED 200 First Aid & Basic Life Support .5 cr.

or

SFED 212 First Aid/CPR/AED for the Instructor 1 cr.

HEAL 262 Applied Anatomy and Exercise Physiology 3 cr.
HEAL 269 Wellness 3 cr.
HEAL 315 Nutrition 3 cr.
HEAL 350 Community Health 3 cr.
HEAL 460 Teaching of Family Life and Sex. 3 cr.
HEAL 465 Health ed. Promotion and Plan. 3 cr.

ESM 105 Introduction to Environmental Studies 3 cr.

or

ESM 300 Environmental Education 3 cr.
History Major

History Major
Major in History-Liberal Arts 36 Total Credits

Introductory Requirements 9 cr. hrs.
HIST 101* Origins of Civilization (supporting course)*, 3 cr.
HIST 102 History of the Modern World, 1500-Present, 3 cr.
HIST 215 U.S. History to 1865, 3 cr.
HIST 216 U.S. History from 1865, 3 cr.
*History majors are required to take HIST 101 to meet Social and Behavioral Sciences Requirement in General Education Goal Two, so the course and its 3 credits will not be counted as history major credits.

Intermediate Requirements 6 cr. hrs.
Choose one of the following non-U.S. history courses 3 cr. hrs.
HIST 201 Introduction to Asian Civilization, 3 cr.
HIST 202 Introduction to Latin American Civilizations, 3 cr.
HIST 203 The Mediterranean: A Survey, 3 cr.
HIST 209 Introduction to African History, 3 cr.

Choose one of the following U.S. history courses 3 cr. hrs.
HIST 206 Native Americans and the United States, 3 cr.
HIST 207 African American History, 3 cr.

Advanced Study of U.S. and non-U.S. History 18 cr. hrs.
Choose two of the following U.S. history courses 6 cr. hrs.
HIST 351 United States Colonial History
HIST 353 United States History: 1790-1850
HIST 354 United States History: Age of Growth
HIST 358 United States History 1890-1945
HIST 359 United States History from 1945
HIST 364 History of the Upper Midwest
HIST 365 American Environmental History
HIST 367 History of United States Foreign Policy
HIST 369 American Intellectual History

Choose two of the following non-U.S. history courses 6 cr. hrs.
HIST 303 Women’s History: Europe
HIST 315 The World of Napoleon
HIST 316 The British Empire
HIST 317 Social Movements in Modern Britain
HIST 318 Twentieth Century Europe
HIST 320 Ancient Rome
HIST 321 Early Middle Ages
HIST 322 The Renaissance
HIST 323 The Reformation
HIST 324 Early Modern Europe
HIST 325 Late Middle Ages
HIST 327 WWI to WWII
HIST 328 WWII to Cold War
HIST 332 The Islamic Middle East to 1500
HIST 333 Making of Global Exchange System to 1700
HIST 334 Modern China, 1800 to Present
HIST 335 Modern Japan, 1600 to Present

Department of History and Philosophy
307 Kleinpell Fine Arts
715-425-3164
www.uwrf.edu/HIST/

History: Michael Kahlow-Chair, Ryan Fischer, Samuel Gale, Victoria Houseman, Kiril Petkov and Zhiguo Yang

Philosophy: Imtiaz Moosa and Walter Wietzke

The Department of History and Philosophy offers courses and degrees for those who wish to learn how to read, think and write effectively. A degree in history is excellent preparation for careers in business, advertising, government, foreign service, international relations, publications, journalism and human services. It also is indicated for those who wish to pursue a career specifically in the field of history including teaching at the elementary, secondary, or college level, or working in museums, archives and libraries. Students take courses in a variety of periods, areas and topics.

Majors are encouraged to participate in an internship program for practical preparation for a career. Various options are also offered for study abroad in other countries of the world as part of the degree.

Majors are strongly urged to take a course in Women’s Studies to enhance their understanding of the human past.

The Broad Field Social Studies Major is recommended for those wishing to teach secondary social studies in Wisconsin and Minnesota.

General Education Requirements
BA and BS Liberal Arts majors as listed for CAS.
BS Education majors as listed for CEPS.
HIST 336 Traditional East Asia, Prehistory-1800
HIST 360 The Long Nineteenth Century: Europe

Concentrated Study of the History Topics of Your Choice 6 cr. hrs.
Choose two advanced courses (numbered 300 or higher), that you have not yet taken, from the list above

Research and Historiography 3 cr. hrs.
HIST 485 History Seminar

Remember to periodically review your Degree Audit Report (DAR) in eSIS!

History Major - Philosophy Emphasis

Major in History-Philosophy Emphasis 36 (+3) Total Credits
History Major Core 18 (+3) cr. hrs.
Two 100 level history courses, 6 cr.
HIST 100 Defining Themes in US History, 3 cr.
HIST 102 History of the Modern World, 1500-Present (+3) credit hours
(One would be taken as a required supporting course within the General Education requirements.)

HIST 485 History Seminar, 3 cr.

Directed Electives, 12 cr.
Four history courses at the 300 and/or 400 level (At least one course from each of the following areas:
U.S., European and World)

Philosophy Emphasis Core 18 (+3) cr. hrs.
Phil 151 Living Issues in Philosophy (A required supporting course taken within General Education), 3 cr.

Directed Electives - Four of the following, 12 cr.
Phil 201 Ethics, Human Nature and the Natural World, 3 cr.
Phil 221 Ancient Philosophy, 3 cr.
Phil 222 Hellenistic and Medieval Philosophy, 3 cr.
Phil 224 Existentialism and Late Modern Philosophy, 3 cr.
Phil 245 Islam and Oriental Religions in the USA, 3 cr.
Phil 310 History and Philosophy of Visual Arts, 3 cr.

General Electives 6 cr.
Two philosophy courses at the 300 or 400 level

This major may NOT be combined with a minor in History or Philosophy.
History Minor

History Minor Requirements (24 credits)

Required supporting course - take one of the following General Education courses (3 credits)
HIST 101 Origins of Civilization, 3
HIST 102 History of the Modern World, 1500-present, 3

World history courses - take two of the following courses (6 credits)
HIST 201 Introduction to Asian Civilization, 3
HIST 202 Introduction to Latin American Civilizations, 3
HIST 203 The Mediterranean: A Survey, 3
HIST 209 Introduction to African History, 3

U.S. history courses - take two of the following courses; one must be HIST 215 or 216 (6 credits)
HIST 204 Global Migration in U.S. History, 3
HIST 205 Women's History: United States, 3
HIST 206 Native Americans and the United States, 3
HIST 207 African American History, 3
HIST 215 United States History to 1865, 3
HIST 216 United States History from 1865, 3

Advanced study of history - take four of the following courses (12 credits)

U.S. History
HIST 351 United States Colonial History I, 3
HIST 352 United States Colonial History II, 3
HIST 353 United States History: 1790-1850, 3
HIST 354 United States History: Age of Growth, 3
HIST 358 United States History 1890-1945, 3
HIST 359 United States History from 1945, 3
HIST 364 History of the Upper Midwest: Furs, Logs and Farms, 3
HIST 365 American Environmental History, 3
HIST 367 History of United States Foreign Policy, 3
HIST 368 Social Movements in United States History, 3
HIST 369 American Intellectual History, 3
HIST 402 History in Film, 3
HIST 481 Material & Popular Culture, 3

World History
HIST 303 Women's History: Europe, 3
HIST 315 The World of Napoleon, 3
HIST 316 The British Empire, 3
HIST 317 Social Movements in Modern Britain: 1879-1936, 3
HIST 318 Twentieth Century Europe, 3
HIST 320 Ancient Rome, 3
HIST 321 Early Middle Ages, 3
HIST 322 The Renaissance, 3
HIST 323 The Reformation, 3
HIST 324 Early Modern Europe, 3
HIST 325 Late Middle Ages, 3
HIST 327 WWI to WWII, 3
HIST 328 WWII to Cold War, 3
HIST 332 The Islamic Middle East to 1500, 3
HIST 333 Silk, Spices, and Silver: The Making of the Global Exchange System to 1700, 3
HIST 334 Modern China, 1800 to Present, 3
HIST 335 Modern Japan, 1600 to Present, 3
HIST 336 Traditional East Asia, Prehistory-1800, 3
Honors Program

Honors Admission Requirements
Are you an incoming freshman that has been accepted to the UW-River Falls and interested in the Honors Program?

Eligibility for first term, incoming freshman students:

- Composite ACT score of 27 or higher and/or
- Graduated in the top 10% of high school class (a 3.75 for high schools that do not rank)

Are you a current student or are you a transferring to UW-River Falls and interested in joining the Honors Program?

Eligibility for current and transfer students:

- Cumulative GPA of 3.3 or higher with time to complete the Honors Program requirements.

Honors Program Requirements
In order to complete the Honors Program at UW-River Falls, students who have been accepted into the program will take two Honors-specific classes and demonstrate knowledge in five core competencies:

HON 190: Honors Seminar
All Honors students enroll in HON 190 early in their UWRF career, preferably the first semester in the program. Taught by instructors from several departments, this one-credit seminar is the foundational class that explores why each of the five Honors competencies is important and then helps students create a personalized Honors Program plan. We want students to earn as many of their Honors credits as possible as they take classes required for graduation, so nearly all of the Honors credits will count toward degree completion.

Global Engagement/Awareness
All UWRF students must complete a "Global Perspectives" (GP) class in order to graduate, so this class will count in this competency. The rest of this requirement may be earned in a variety of ways: by completing a second GP class, taking a 200-level or above Modern Language class (i.e. Spanish, French, German, Chinese, or Japanese), participating in a credit-bearing study abroad experience, or by completing a "portfolio project."

Communication/Rhetorical Skills
All Honors students must have strong reading, writing, and thinking skills; therefore, Honors students will take an Honors- or discipline-specific section of ENGL 200 (a General Education requirement) or will take a class that introduces students to their discipline's language (i.e. BIOL 160: General Biology-Freshman Research Focus, CSD 160: Introduction to Communication Sciences and Disorders, ENGL 253: Introduction to Literary Studies, PSYC 216: Research Methods, etc.). Students will be provided with a detailed list of the Communication/Rhetoric classes when they craft their Honors Program plan in HON 190.

Community Engagement
Being active in the community—whether that is the campus community, your home community, the national community, or the global community—offers a variety of benefits to students; therefore, if students plan on graduating from the Honors Program, they must complete at least 135 volunteer hours prior to graduation. These 135 hours may be split across all four years or done in a shorter amount of time and may be done throughout the year, including over the summer, Spring Break, or J-Term.

Sustainability
Sustainability is the study of three key areas: economic, social, and environmental justice. Since part of our mission at UWRF is to prepare ethical and engaged students, all Honors students will take courses that explore two of the three "pillars of Sustainability" named above. Students will work
with their instructor for HON 190 to choose classes in this requirement that also count in their major/minor and/or in their University/General Education requirements—courses from nearly all majors are available to meet this requirement.

**Undergraduate Research, Scholarly, and Creative Activity (URSCA)**

Another part of our mission at UWRF is to introduce students to the benefits of being involved in research and scholarly activities; therefore, to meet this requirement, students will complete an undergraduate research, scholarly, or creative activity in an upper-level class in their major and/or minor. The class in which the URSCA activity takes place meets this requirement.

**HON 497: Honors Capstone Seminar**

To complete the Honors Program, all Honors students must take HON 497, a class where Honors students meet once per week for 50 minutes to listen and respond to URSCA presentations by their peers in the Honors Program. This class will be taken near the end of their program or immediately after their URSCA project has been completed.

**Please Note...**

1) Nearly all of the classes taken in these competencies will also count in students' major/minor, General Education, and/or University requirements. The credits students need to take to complete the Honors Program outside of graduation requirements are kept to a minimum so that students are not taking "extra" classes to complete the program.

2) In order for students to graduate with the Honors Program on their transcript, they must have at least a 3.5 cumulative GPA by graduation.

3) Students may NOT double-count courses between the different Honors Program competencies. For example, ESM 251 cannot count as both Communication/Rhetorical Skills and Sustainability.

4) The Honors Program Office audits students' progress bi-annually. If students are not making progress toward completing the Honors Program and maintaining a cumulative GPA of 3.3 or higher, they will be removed from the program. As noted in #2 above, students must have at least a 3.5 cumulative GPA by graduation as a program requirement.
Horticulture Major

Foundation Courses in CAFES 12 cr. hrs.
PLSC 161 Intro to Plant Science 3 cr.
AET 150 Intro to Ag and Environmental Engineering Technology 3 cr.
SOIL 120 Intro to Soil Science 3 cr.
AGEC 230 Intro to Agricultural Economics 3 cr.

Horticulture Major: 64-68 Total Credits

Required Core HORT Courses: 16 cr. hrs.
HORT 169 Introduction to Horticulture 3 cr.
HORT 200 Plant Propagation 3 cr.
HORT 255 Turfgrass Science and Management 3 cr.
HORT 310 Greenhouse Management 3 cr.
HORT 352 Woody Landscape Plants 3 cr.
HORT 485 Senior Seminar in Horticulture 1 cr.

Required Related Courses: 20 cr. hrs.
CHEM 230 General Organic Chemistry 3 cr.
CROP 257 Genetics 3 cr.
or ANSC 257 Genetics 3 cr.
SOIL 311 Soil Fertility 4 cr.
BIOL 314 Plant Pathology 3 cr.
AGEC 361 Horticultural Business Management 3 cr.
or AGBI 251 Agricultural Biochemistry 3 cr.
CROP 435 Crop Physiology 4 cr.

Horticulture Options (Choose one)
Choose one of three options in horticulture to focus your major in Professional Horticulture, Landscape Design and Management, or Fruit and Vegetable Sustainable Systems.

Professional

Professional Horticulture Option 28-30 cr. hrs.
HORT 270 / HORT 370 Horticulture Internship 4 cr.
BIOL 333 Entomology 3 cr.
HORT 327 Vegetable Science and Production 4 cr.
HORT 347 Fruit Science and Production 4 cr.
HORT 420 Floriculture 4 cr.

Design-related course. Select ONE of the following:
HORT 245 Interior Plantscapes 3 cr.
HORT 250 Sustainable Landscape Design 4 cr.
HORT 268 Herbaceous Perennials 3 cr.

Plan production-related course. Select ONE of the following:
HORT 369 Plant Tissue Culture 3 cr.
HORT 452 Arboriculture/Nursery Management 3 cr.

Business-related course. Select ONE of the following:
AFES 310 Human Resource Management 3 cr.
AGEC 410 Professional Selling 3 cr.

Unrestricted electives: as needed to reach 120 cr. total

Landscape

Landscape Design and Management Option 31-33 cr. hrs.
Select two of the following:
HORT 201 Hardscape Design: Paver, Patios and Retaining Walls 1 cr.
HORT 202 Landscape Irrigation Management 1 cr.
HORT 203 Design and Management of Landscape Lighting and Water Features 1 cr.
or select AET 333 Landscape Construction 3 cr.

ESM 151 Introduction to Land Use Theory and Practice 3 cr.
HORT 250 Sustainable Landscape Design 4 cr.

Select one of the following:
HORT 268 Herbaceous Perennials 3 cr.
HORT 245 Interior Plantscapes 3 cr.

HORT 270 / HORT 370 Horticulture Internship 4 cr.
HORT 452 Arboriculture/Nursery Management 3 cr.

Select one of the following:
AFES 310 Human Resource Management 3 cr.
AGEC 410 Professional Selling 3 cr.

Select one of the following:
ESM 411 Site Planning and Development 3 cr.
GENG 368 CAD Applications 3 cr.

Select one of the following:
HORT 327 Vegetable Science and Production 4 cr.
HORT 347 Fruit Science and Production 4 cr.

Select one of the following:
HORT 358 Landscape Design Practicum 2 cr.
SOIL 325 Hydric Soils and Wetland Environments 3 cr.

**Fruit and Vegetable**

**Fruit and Vegetable Sustainable Systems Option 27-28 cr. hrs.**
HORT 270 / HORT 370 Horticulture Internship 4 cr.
HORT 327 Vegetable Science 4 cr.
HORT 347 Fruit Science 4 cr.

Select one of the following:
CROP 368 Sustainable Agriculture 3 cr.
ESM 220 Environmental Sustainability: Theory, Issues, and Management 3 cr.

Select one of the following:
AFES 310 Human Resource Management 3 cr.
SOCI 245 Environmental Sociology 3 cr.

AGEC 445 / ESM 445 Land Use and Sustainable Agricultural Law 3 cr.

Directed electives. Select two of the following:
AGEC 410 Professional Selling 3 cr.
AGEC 450 Natural Resources Economics 3 cr.
BIOL 333 Entomology 3 cr.
CROP 345 Weed Control 3 cr.
CROP 410 Plant Breeding and Crop Improvement 3 cr.
CROP 451 Integrated Pest Management 3 cr.
FDSC 235 Applied Agriculture Microbiology 3 cr.
HORT 420 Floriculture (Greenhouse) Production 4 cr.
MKTG 311 Principles of Marketing for Marketing Communications 3 cr.

Unrestricted electives (as needed to reach 120 credit total)

**Business Emphasis 15 cr. hrs.**
The Business Emphasis is a suggested series of courses that complement the horticulture major. It is not necessary to take all of the courses. The courses are taken in addition to your chosen option. The emphasis designation is not printed on the transcript. *Note: You can NOT double count classes between major requirements and business emphasis requirements.*

**MKTG 311 Principles of Marketing for Marketing Communications** 3 cr.

Select one of the following:
- **AGEC 361 Horticultural Business Management** 3 cr.
- **AFES 310 Human Resource Management** 3 cr.

Select one of the following:
- **CSIS 215 Information Systems for Business Management** 3 cr.
- **CSIS 333 Database Management Systems** 3 cr.

Select two of the following:
- **ACCT 231 Accounting** 1 or **AGEC 305** 3 cr.
- **AFES 310 Human Resource Management** 3 cr.
- **AGEC 410 Professional Selling** 3 cr.
- **BLAW 265 Business Law I** or **AGEC 345 Agricultural Law** 3 cr.
- **FINC 210 Personal Finance** or **AGEC 365**
- **MNGT 330 Diversity in the Workplace**
- **PSYC 250 Industrial and Organizational Psychology**
Horticulture Minor

Horticulture Minor: 22-23 Total Credits

**Required Courses: 19 cr. hrs.**
- HORT 169 Introduction to Horticulture 3 cr.
- HORT 200 Plant Propagation 3 cr.
- HORT 310 Greenhouse Management 3 cr.
- HORT 352 Ornamental Plants 3 cr.
- BIOL 314 Plant Pathology 3 cr.

**Select one from:**
- HORT 327 Vegetable Science and Production 4 cr.
- HORT 347 Fruit Science and Production 4 cr.

**Directed electives: 3-4 cr. hrs.**
(any HORT course, consult with horticulture faculty)
Hydrogeology Minor

Hydrogeology Minor: 21 Total Credits

Required Courses 17 cr. hrs.
ESM 360 Applied Hydrology and Water Quality 4 cr.
ESM 412 Fate and Transport of Chemicals on the Environment 3 cr.
ESM 413 Environmental Analysis 4 cr.
GEOL 445 Hydrogeology 3 cr.
SOIL 460 Soil Physics 3 cr.

Electives-Select from the following: 4 cr. hrs.
CHEM 230 General Organic Chemistry 3 cr.
CHEM 251 Analytical Chemistry 2 cr.
CHEM 256 Analytical Chemistry Lab 1 cr.
CHEM 356 Chemical Instrumentation Lab (writing intensive) 1 cr.
BIOL 324 Microbiology 4 cr.
GEOL 327 Geomorphology and Glacial Geology (writing intensive) 4 cr.
GEOL 362 Stratigraphy and Sedimentation 4 cr.
GEOL 441 Geophysics 4 cr.
SOIL 325 Hydric Soils and Wetland Environments 3 cr.

Department of Plant and Earth Science
324 Agricultural Science
715-425-3345
www.uwrf.edu/PES/

Holly Dolliver-Chair, Olutoyosi Ajayi, Jill Coleman
Wasik, Heather Davis, Christopher Holtkamp,
Todd Johnson, Kevyn Juneau, Veronica Justen,
Kerry Keen, Natasha Macnack, Sonja Maki,
Yoana Newman, Eric Sanden, Brian Smith, Dan
Waletzko, Ian Williams, David Zlesak
International Studies Major

International Studies Major: 36 Total Credits

Required Courses: 21 cr.
- GEOG 120 Human Geography 3 cr.
- INTS 200 Introduction to International Studies 3 cr.
- AGEC 250 World Food and Populations 3 cr.
- HIST 102 History of the Modern World, 1500-Present, 3 cr.
- POLS 260 Introduction to International Relations 3 cr.
- INTS 300 Research Methods 3 cr.
- INTS 480 Seminar in International Studies 3 cr.

Directed Electives: 15 cr.
Select 9 credits from one of the categories below (at least 3 credits must be at the 300 level or above), excluding Education Abroad. In addition, students must complete 3 credits from the Education Abroad category and an additional 3 credits from any category. Credit for INTS 379, INTS 389, INTS 490, or INTS 499 can be applied to a category after consultation with the chair.

1. International Politics and Economy
- ENGL 205 Literature of War: Culture and Ethics 3 cr.
- GEOG 340 Europe 3 cr.
- GEOG 342 Latin America 3 cr.
- GEOG 344 Asia and Oceana 3 cr.
- HIST 359 U.S. History from 1945 3 cr.
- HIST 367 United States Diplomatic History 3 cr.
- POLS 245 Intro to Comparative Politics 3 cr.
- POLS 344 Politics of the Developing World 3 cr.
- POLS 346 Politics of Western Europe 3 cr.
- POLS 348 Politics of East Asia 3 cr.
- POLS 364 International War and Peace 3 cr.
- POLS 365 American Foreign Policy 3 cr.
- POLS 369 Politics of the World Economy 3 cr.
- POLS 377 The United Nations (may be taken three times) 1 cr.
- SOCI 231 Sociology of Globalization 3 cr.
- SPAN 371 Business and Culture in the Hispanic World 3 cr.
- SPAN 372 Spanish for the Trades and Professions 3 cr.

2. Area Studies and Geography
- ART 291 The Arts of Asia
- ENGL 317 Modern East Asian Literature and Cinema
- ENGL 341 European Literature 3 cr.
- ENGL 428 British Literature: 1940-Present 3 cr.
- FILM 315/GERM 315 Classic and Modern German Film 3 cr.
- FILM 316 History of French Cinema 3 cr.
- GEOG 340 Europe 3 cr.
- GEOG 342 Latin America 3 cr.
- GEOG 344 Asia and Oceana 3 cr.
- GERM 275 Business German 3 cr.
- GERM 341 German Civilization to 1648 3 cr.
- GERM 342 Modern German-Speaking Cultures 3 cr.
- GERM 351 Survey of German Literature to Classicism (1800) 3 cr.
- GERM 352 Survey of German Literature from Classicism (1800) to Present 3 cr.
- GERM 451 German Drama and Theatre 3 cr.
- GERM 452 German Tale, Short Story, and Novella
- GERM 453 German Poetry
- HIST 201 Introduction to Asian Civilization 3 cr.
- HIST 202 Introduction to Latin American Civilizations 3 cr.

International Studies
Interdisciplinary Program
356 KFA
715-425-3318
www.uwrf.edu/INTS

Faculty Committee

- Neil Kraus, Political Science (Chair)
- Rebecca Raham, Modern Language
- Charles Corcoran, Accounting and Finance
- Charles Rader, Geography and Geographic Information Science
- Ogden Rogers, Social Work
- David Trechter, Agricultural Economics

The primary mission of the International Studies Program is to create global awareness by providing students with the intellectual skills and substantive knowledge necessary to meet the global challenges of the 21st Century.

Program Learning Outcomes

Substantive Knowledge
By the completion of the International Studies major, graduates will be able to:

1. identify the key agricultural, economic and business, geographic, historical, social/cultural, and political condition and trends at the global level, and the linkages to the domestic and international levels; and
2. demonstrate first-hand experience with at least one other foreign culture and way of life.

Intellectual Skills
By the completion of the International Studies major, graduates will be able to:

3. collect, assess the value of, and apply information to the study of international issues;
4. evaluate critically global issues from an interdisciplinary perspective;
5. communicate effectively in written, oral, and electronic contexts;
6. organize and complete independent inquiry and analysis; and
7. demonstrate an intermediate-level competency in a second language, equivalent to at least two years’ of college-level work.
HIST 203 The Mediterranean: A Survey
HIST 318 Twentieth Century Europe 3 cr.
HIST 334 Modern China, 1800 to the Present 3 cr.
HIST 335 Modern Japan, 1600 to the Present 3 cr.
POLS 346 Politics of Western Europe 3 cr.
POLS 348 Politics of East Asia 3 cr.
SPAN 341 Spanish Civilization to 1800 3 cr.
SPAN 342 Spanish Civilization 1800 to Present 3 cr.
SPAN 345 Latin American Civilization to 1800 3 cr.
SPAN 346 Latin American Civilization 1800 to Present 3 cr.
SPAN 351 Survey of Spanish Literature: Siglo De Oro 3 cr.
SPAN 352 Survey of Spanish Literature: Generation '98 to Present 3 cr.
SPAN 355 Survey of Latin American Literature - Conquest to Independence 3 cr.
SPAN 356 Survey of Latin American Literature - Independence to Present 3 cr.
SPAN 371 Business and Culture in the Hispanic World 3 cr.
SPAN 372 Spanish for the Trades and Professions 3 cr.
SPAN 452 Advanced Spanish Literature 3 cr.
SPAN 455 Advanced Latin American Literature 3 cr.

3. Culture, Society, and Language
ANTH 100 Cultural Anthropology 3 cr.
ART 291 The Arts of Asia 3 cr.
ENGL 214 Women's Literature 3 cr.
ENGL 230 International Short Fiction 3 cr.
ENGL 232 Contemporary Drama 3 cr.
ENGL 306 Postcolonial Film and Literature 3 cr.
ENGL 317 Modern East Asian Literature and Cinema 3 cr.
ENGL 341 European Literature 3 cr.
ENGL 428 British Literature: 1940-Present 3 cr.
ENGL 441 20th Century International Literature 3 cr.
ENGL 442 World Cinema 3 cr.
FILM 315 / GERM 315 Classic and Modern German Film
FILM 316 / FREN 316 History of French Cinema 3 cr.
GERM 275 Business German 3 cr.
GERM 341 German Civilization to 1648 3 cr.
GERM 342 Modern German-Speaking Cultures 3 cr.
GERM 351 Survey of German Literature to Classicism (1800) 3 cr.
GERM 352 Survey of German Literature Classicism (1800) to Present 3 cr.
GERM 451 German Drama and Theatre 3 cr.
GERM 452 German Tale, Short Story, and Novella 3 cr.
GERM 453 German Poetry 3 cr.
HIST 102 History of the Modern World, 1500-Present 3 cr.
JOUR 350 Mass Communication in the Global Age 3 cr.
MNGT 310 Culture and Business 3 cr.
MUS 300 World Music 3 cr.
SOCI 314 / ANTH 314 Faces of Cultures 3 cr.
SOCI 316 / ANTH 316 Social and Cultural Change 3 cr.
SOCI 331 / ANTH 331 Global Perspectives on Women 3 cr.
SPAN 341 Spanish Civilization to 1800 3 cr.
SPAN 342 Spanish Civilization 1800 to Present 3 cr.
SPAN 345 Latin American Civilization to 1800 3 cr.
SPAN 346 Latin American Civilization 1800 to Present 3 cr.
SPAN 351 Survey of Spanish Literature: Siglo De Oro 3 cr.
SPAN 352 Survey of Spanish Literature: Generation '98 to Present 3 cr.
SPAN 355 Survey of Latin American Literature, Conquest to Independence 3 cr.
SPAN 356 Survey of Latin American Literature, Independence to Present 3 cr.
SPAN 371 Business and Culture in the Hispanic World 3 cr.
SPAN 372 Spanish for the Trades and Professions 3 cr.
SPAN 452 Advanced Spanish Literature 3 cr.
SPAN 455 Advanced Latin American Literature 3 cr.

4. Global Science and Development
AGEC 450 Introduction to Natural Resource Economics 3 cr.
ECON 329 Global Topics in African, Asian, and Latin American Economic Development 3 cr.
ECON 340 Contemporary International Trade 3 cr.
ECON 342 International Finance 3 cr.
ENGL 306 Postcolonial Film and Literature 3 cr.
ESM 105 Introduction to Environmental Studies 3 cr.
ESM 377 Business Ecology 3 cr.
GEOG 212 Weather and Climate 3 cr.
GEOG 214 World Patterns of Plants and Animals 3 cr.
GEOG 220 Economic Geography 3 cr.
GEOG 342 Latin America 3 cr.
GEOG 343 Africa 3 cr.
GEOG 412 Advanced Climatology 3 cr.
GEOL 115 Oceanography 3 cr.
GEOL 269 Environmental Geology 2 cr.
GEOL 327 Geomorphology 3 cr.
GEOL 330 Meteorology 3 cr.
GEOL 441 Geophysics 3 cr.
GEOL 445 Hydrogeology 3 cr.
MKTG 355 International Marketing 3 cr.
MNGT 250 Global Business & Society
MNGT 355 International Business 3 cr.
MNGT 380 International Business Seminar 3 cr.
POLS 344 Politics of the Developing World 3 cr.
POLS 348 Politics of East Asia 3 cr.
POLS 369 Politics of the World Economy 3 cr.
POLS 377 The United Nations (may be taken three times) 1 cr.
SOCI 338/ANTH 338 Global Perspectives on Health and Disease 3 cr.

Education Abroad
The education abroad category includes those courses approved by the INTS program committee. Any exceptions to the education abroad course list will be considered only if they are requested in writing prior to applying for the program.

INTS 365 Contemporary Europe 3 cr.
INTS 370 International Study Tour 1-3 cr.
INTS 371 / POLS 371 German Politics 3 cr.
INTS 372 / POLS 372 Scottish Politics 3 cr.
INTS 377 Semester Abroad 6 cr.
WIS 305 Scotland: Society and Globalization 3 cr.
378 within depts. Semester Abroad Research 3-6 cr.

Supporting Courses:
Students complete two years of one foreign language of their choice with a minimum overall grade point average of no less than 2.0; e.g., complete any two-year language at UWRF, complete test outs equivalent to two years, or complete two years at another accredited university and transfer the credits to UWRF.
International Studies Minor

International Studies Minor: 24 Total Credits

Required Courses: 12 cr. hrs.
AGEC 250 World Food and Populations 3 cr.
GEOG 120 Human Geography 3 cr.
INTS 200 Introduction to International Studies 3 cr.
POLS 260 Introduction to International Relations 3 cr.

Directed Electives: 12 cr. hrs.
Select nine credits from one of the categories below, excluding Education Abroad. In addition, students must complete three credits chosen from any category. Credit for INTS 300, 379, 389, 480, 490 or 499 can be applied to a category after consultation with the chair.

Supporting Courses:
Students complete one year of a foreign language of their choice with a minimum overall grade point average of no less than 2.0; e.g., complete any one-year language course at UWRF, complete test outs equivalent to one year, or complete one year at another accredited university and transfer the credits to UWRF.

Area Studies: Asia
ART 291 Asian Art History 3 cr.
ENGL 317 Modern East Asian Literature and Film
GEOG 344 Asia and Oceania 3 cr.
HIST 201 Introduction to Asian Civilization 3 cr.
HIST 334 Modern China, 1800 to the Present 3 cr.
HIST 335 Modern Japan, 1600 to the Present 3 cr.
POLS 348 Politics of East Asia 3 cr.

Area Studies: Europe
ENGL 341 European Literature 3 cr.
ENGL 428 Modern British Literature: 1940-Present 3 cr.
FILM 315 / GERM 315 Classic and Modern German Film 3 cr.
FILM 316 History of French Cinema 3 cr.
GEOG 340 Europe 3 cr.
GERM 275 Business German 3 cr.
GERM 341 German Civilization 3 cr.
GERM 342 Modern German-Speaking Cultures 3 cr.
GERM 351 Survey of German Literature to Classicism (1800) 3 cr.
GERM 352 Survey of German Literature from Classicism (1800) to Present 3 cr.
GERM 451 German Drama and Theater 3 cr.
GERM 452 German Tale, Short Story, and Novella
GERM 453 German Poetry
HIST 203 Survey of the Mediterranean
HIST 318 Twentieth Century Europe 3 cr.
POLS 346 Politics of Western Europe 3 cr.
SPAN 341 Spanish Civilization to 1800 3 cr.
SPAN 342 Spanish Civilization 1800 to Present 3 cr.
SPAN 351 Survey of Spanish Literature Siglo De Oro 3 cr.
SPAN 352 Survey of Spanish Literature 1898 to Present 3 cr.
SPAN 452 Advanced Spanish Literature 3 cr.

Area Studies: Latin America
GEOG 342 Latin America 3 cr.
HIST 202 Introduction to Latin American Civilizations 3 cr.
SPAN 345 Latin American Civilization to 1800 3 cr.
SPAN 346 Latin American Civilization 1800 to Present 3 cr.

International Studies
Interdisciplinary Program
356 KFA
715-425-3318
www.uwrf.edu/INTS

Faculty Committee

Neil Kraus, Political Science (Chair)
Rebecca Raham, Modern Language
Charles Corcoran, Accounting and Finance
Charles Rader, Geography and Geographic Information Science
Ogden Rogers, Social Work
David Trechter, Agricultural Economics
SPAN 355 Survey of Latin American Literature, Conquest to Independence 3 cr.
SPAN 356 Survey of Latin American Literature Independence to Present 3 cr.
SPAN 371 Business and Culture in the Hispanic World 3 cr.
SPAN 372 Spanish for the Trades and Professions 3 cr.
SPAN 455 Advanced Latin American Literature 3 cr.

**Conflict and Peace**
ENGL 205 Literature of War: Culture and Ethics 3 cr.
HIST 359 U.S. History from 1945 3 cr.
HIST 367 History of U.S. Foreign Policy 3 cr.
POLS 364 International War and Peace 3 cr.
POLS 365 American Foreign Policy 3 cr.
POLS 377 The United Nations (may be taken three times) 1 cr.

**Culture**
ANTH 100 Introduction to Anthropology 3 cr.
ART 291 Asian Art History 3 cr.
ENGL 214 Women's Literature 3 cr.
ENGL 230 International Short Fiction 3 cr.
ENGL 232 Contemporary Drama 3 cr.
ENGL 306 Postcolonial Film and Literature 3 cr.
ENGL 317 Modern East Asian Literature and Cinema
ENGL 341 European Literature 3 cr.
ENGL 428 Modern British Literature: 1940-Present 3 cr.
ENGL 441 Twentieth Century International Literature 3 cr.
ENGL 442 World Cinema 3 cr.
FILM 315 / GERM 315 Classic and Modern German Film 3 cr.
FILM 316 / FREN 316 History of French Cinema 3 cr.
GEOG 340 Europe 3 cr.
GEOG 342 Latin America 3 cr.
GEOG 343 Africa 3 cr.
GEOG 344 Asia and Oceana 3 cr.
GERM 275 Business German 3 cr.
GERM 341 German Civilization 3 cr.
GERM 342 Modern German-Speaking Cultures 3 cr.
GERM 351 Survey of German Literature to Classicism (1800) 3 cr.
GERM 352 Survey of German Literature from Classicism (1800) to Present 3 cr.
GERM 451 German Drama and Theater 3 cr.
GERM 452 German Tale, Short Story, and Novella
GERM 453 German Poetry
HIST 102 History of the Modern World, 1500-Present 3 cr.
JOUR 350 Mass Communication in the Global Age 3 cr.
MNGT 310 Culture and Business 3 cr.
MUS 300 World Music 3 cr.
POLS 245 Comparative Politics 3 cr.
POLS 344 Politics of the Developing World 3 cr.
POLS 346 Politics of Western Europe 3 cr.
POLS 348 Politics of East Asia 3 cr.
POLS 349 Middle Eastern History and Politics 3 cr.
SOCI 314 / ANTH 314 Faces of Culture 3 cr.
SOCI 316 / ANTH 316 Social and Cultural Change 3 cr.
SOCI 321 / ANTH 321 Global Perspectives on Women 3 cr.
SPAN 341 Spanish Civilization to 1800 3 cr.
SPAN 342 Spanish Civilization 1800 to Present 3 cr.
SPAN 345 Latin American Civilization to 1800 3 cr.
SPAN 346 Latin American Civilization 1800 to Present 3 cr.
SPAN 351 Survey of Spanish Literature Siglo De Oro 3 cr.
SPAN 352 Survey of Spanish Literature 1898 to Present 3 cr.
SPAN 355 Survey of Latin American Literature, Conquest to Independence 3 cr.
SPAN 356 Survey of Latin American Literature Independence to Present 3 cr.
SPAN 371 Business and Culture in the Hispanic World 3 cr.
SPAN 372 Spanish for the Trades and Professions 3 cr.
SPAN 452 Advanced Spanish Literature 3 cr.
SPAN 455 Advanced Latin American Literature 3 cr.

Development
AGEC 450 Introduction to Natural Resources Economics 3 cr.
ECON 329 Global Topics in African, Asian, and Latin American Economic Development 3 cr.
ECON 340 Contemporary International Trade Issues 3 cr.
ECON 342 International Finance 3 cr.
ENGL 306 Postcolonial Film and Literature 3 cr.
ESM 377 Business Ecology 3 cr.
GEOG 220 Economic Geography 3 cr.
GEOG 342 Latin America 3 cr.
GEOG 343 Africa 3 cr.
MKTG 355 International Marketing 3 cr.
MNGT 250 Global Business & Society
MNGT 355 International Business 3 cr.
MNGT 380 International Business Seminar 3 cr.
POLS 344 Politics of the Developing World 3 cr.
POLS 348 Politics of East Asia 3 cr.
POLS 369 Politics of the World Economy 3 cr.
POLS 377 The United Nations (may be taken three times) 1 cr.
SOCI 338 / ANTH 338 Global Perspectives on Health and Disease 3 cr.

Global Science and Environment
AGEC 450 Introduction to Natural Resource Economics 3 cr.
ESM 105 Introduction to Environmental Studies 3 cr.
ESM 377 Business Ecology 3 cr.
GEOG 212 Weather and Climate 3 cr.
GEOG 214 World Patterns of Plants and Animals 3 cr.
GEOL 115 Oceanography 3 cr.
GEOL 269 Environmental Geology 3 cr.
GEOL 327 Geomorphology & Glacial Geology 3 cr.
GEOL 330 Meteorology 3 cr.
GEOL 441 Introduction to Geophysics 3 cr.
GEOL 445 Hydrogeology 3 cr.
SOCI 338 / ANTH 338 Global Perspectives on Health and Disease 3 cr.

International Relations
GEOG 340 Europe 3 cr.
GEOG 342 Latin America 3 cr.
GEOG 344 Asia and Oceania 3 cr.
HIST 367 History of U.S. Foreign Policy 3 cr.
POLS 245 Comparative Politics 3 cr.
POLS 344 Politics of the Developing World 3 cr.
POLS 346 Politics of Western Europe 3 cr.
POLS 348 Politics of East Asia 3 cr.
POLS 364 International War and Peace 3 cr.
POLS 365 American Foreign Policy 3 cr.
POLS 369 Politics of the World Economy 3 cr.
POLS 377 The United Nations (may be taken three times) 1 cr.
SOCI 231 Sociology of Globalization 3 cr.
SPAN 371 Business and Culture in the Hispanic World 3 cr.
SPAN 372 Spanish for the Trades and Professions 3 cr.

Education Abroad

The education abroad category includes those courses approved by the INTS program committee. Any exceptions to the education abroad course list will be considered only if they are requested in writing prior to applying for the program.

INTS 365 Contemporary Europe 3 cr.
INTS 370 International Study Tour 1-3 cr.
INTS 371 / POLS 371 German-Speaking Europe 3 cr.
INTS 372 / POLS 372 The Politics of Scotland 3 cr.
INTS 377 Semester Abroad 6 cr.
WIS 305 Scotland: Society and Globalization 3 cr.
378 within depts. Semester Abroad Research 3-6 cr.
Journalism Major

Journalism Major 43 cr. hrs.
Core Requirements: 30 cr. hrs.
JOUR 110 Principles of Journalism 6 cr.
JOUR 201 Information Gathering 3 cr.
JOUR 202 Print News Writing
OR JOUR 203 Broadcast News Writing 3 cr.
JOUR 240 Introduction to Visual Communication 3 cr.
JOUR 340 Media Management for News Entrepreneurs 3 cr.
JOUR 404 News Service 3 cr.
JOUR 465 Mass Communication Law 3 cr.

Two of the following production courses: 4 cr.
JOUR 221 Radio News Production 2 cr.
JOUR 222 TV News Photography 2 cr.
JOUR 224 Online Media Production 2 cr.

Directed Electives, selected from the following: 9 cr.
JOUR 250 First Amendment in American Society 3 cr.
JOUR 266 Photojournalism 3 cr.
JOUR 269 Multimedia Storytelling 3 cr.
JOUR 289 Special Topics in Journalism and Mass Communication 1-3 cr.
JOUR 302 History of Documentary
JOUR 303 Documentary Production 3 cr.
JOUR 305 News in the Movies
JOUR 315 Race, Class and News
JOUR 316 Media Ethics
JOUR 319 The Media and American Politics
JOUR 345 History of Mass Communication
JOUR 350 Mass Communication in the Global Age 3 cr.
JOUR 360 Opinion Writing 3 cr.
JOUR 378 Semester Abroad Research 3-6 cr.
JOUR 379 Internship in Journalism 1-3 cr.
JOUR 389 Special Topics in Journalism and Mass Communication 1-3 cr.
JOUR 455 Mass Media and Society
JOUR 489 Special Topics in Journalism and Mass Communication 1-3 cr.
JOUR 490 Readings in Journalism and Mass Communication 1-3 cr.
JOUR 499 Independent Projects in Journalism and Mass Communication 1-3 cr.

Required Supporting Course.
JOUR 101 Introduction to Mass Communication 3 cr.
(Note that the course also fulfills the General Education ethical citizenship requirement.)

Department of Journalism
310 North Hall
715-425-3169
www.uwrf.edu/JOUR/

Sandra Ellis-chair, Patricia Berg, Andris Straumanis.
Adjunct: Richard Burgsteiner

General Education
Journalism courses (other than the required supporting course, JOUR 101) cannot double count in both the journalism major and general education. Students must take courses other than journalism to meet their general education goals.

Journalism and Secondary Education
Students interested in teaching journalism and/or serving as a newspaper or yearbook advisor at the secondary school level may major or minor in journalism, and must take a second teaching area major such as English or broad area studies. The student should consult with the dean of the College of Education and Professional Studies for specific teaching requirements.

Marketing Communications Major
Journalism is one of seven academic departments participating in the interdisciplinary major of Marketing Communications.

International Studies Major
Journalism offers a directed elective (JOUR 460) that may count toward an International Studies major.

Film Studies Minor
Journalism is one of the departments from which courses may be taken for the Film Studies minor.

Professional Writing Minor
Journalism is one of the subject fields included in the Department of English Professional Writing minor.
Journalism Studies Minor

Journalism Studies Minor 24 cr.

Core Requirements 15 cr.
- JOUR 110 Principles and Ethics of Journalism 6 cr.
- JOUR 240 Introduction to Visual Communication 3 cr.
- JOUR 340 Media Management for News Entrepreneurs 3 cr.
- JOUR 465 Mass Communication Law 3 cr.

Directed Electives: Select three from the following: 9 cr.
- JOUR 250 The First Amendment in American Society 3 cr.
- JOUR 302 History of Documentary 3 cr.
- JOUR 305 News in Popular Culture 3 cr.
- JOUR 315 Race, Class and News 3 cr.
- JOUR 316 Media Ethics 3 cr.
- JOUR 319 The Media and American Politics 3 cr.
- JOUR 345 History of Mass Communication 3 cr.
- JOUR 350 Mass Communication in the Global Age 3 cr.
- JOUR 455 Mass Media and Society 3 cr.

Required supporting course: 3 cr.
- JOUR 101 Introduction to Mass Communication 3 cr.

(Note that the course also fulfills the General Education ethical citizenship requirement.)
Criminology Major

Criminology Major - 36 Total Credits
Students must maintain a minimum of a 2.25 G.P.A. to remain eligible for the program

Core Requirements 18 cr. hrs.
CRIM 130 Intro. to Crime, Law, and Society (required supporting – counts Gen. Ed.)
SOCI 200 Sociological Inquiry 3 cr.
CRIM 201 Theories of Crime 3 cr.
CRIM 210 Criminal Behavior 3 cr.
SOCI 250 Social Statistics 3 cr.
SOCI 300 Research Methods 3 cr.
SOCI 480 Senior Seminar 3 cr.

Directed Electives: 18 cr. hrs.
At least 6 credits from Criminal Behavior
SOCI 218 Deviant Behavior 3 cr.
CRIM 221 Crime, Justice, and Media 3 cr.
CRIM 311 Juvenile Crime and Justice 3 cr.
CRIM 312 Gangs and Gang Behavior 3 cr.
CRIM 313 White Collar Crime 3 cr.
CRIM 321 Race and Crime 3 cr.
CRIM 389 Special Topics in Crime and Justice 3 cr.

At least 6 credits from Crime and Justice
CRIM 241 Victimology 3 cr.
CRIM 341 Restorative Justice 3 cr.
CRIM 351 Women, Crime, and Justice 3 cr.
POLS 359 CJ Politics and Policy 3 cr.
CRIM 361 Social Policy and Drugs 3 cr.
CRIM 441 Trends/Issues in Incarc. 3 cr.
CRIM 442 Alternatives to Incarc. 3 cr.

Options Allowed in Directed Electives Having Specific Requirements/Rules
CRIM 379 Internship in Crime and Justice 6–12 cr. (must be at least a junior and 18 credits of major complete)
CRIM 399 Law Enforcement Certification 6–12 cr. (must take at a technical school and transfer in these credits)
CRIM 490 Readings in Criminology 1–2 cr. (only available Summer or J-Term with faculty consent)
CRIM 499 Independent Study in Criminology 1-2 cr. (only available Summer or J-Term with faculty consent)

Department of Sociology, Criminology and Anthropology
333 Kleinpell Fine Arts
715-425-3992
www.uwrf.edu/SOCI/
Rich Wallace-Chair, Phillip Galli, Kirsten Lindbloom, B. Paige Miller, Shawn Trusten, Desiree Wiesen-Martin, Erik Withers, Tracy Zank

Options
Majors
- Criminology
- Sociology - Liberal Arts (Sociology Major may be used as part of a Broad Field Social Studies Major)

Minors
- Sociology - Liberal Arts
- Criminology
- Anthropology

For those who wish to teach, Broad Field Social Studies Major.
Management

Business Administration Major-Management

Lower Division 23 cr. hrs.

CBE 100 First-Year Seminar: College of Business and Economics 2 cr.
COMS 101 Fundamentals of Oral Communication 3 cr. (double counts as GenEd) OR ENGL 266 Business Writing 3 cr.
ECON 201 Principles of Microeconomics 3 cr.
ECON 202 Principles of Macroeconomics 3 cr.
ACCT 231 Principles of Accounting I 3 cr.
ACCT 232 Principles of Accounting II 3 cr.
CSIS 215 Information Systems for Business Management 3 cr.
ECON 226 Introduction to Statistics 3 cr.
or MATH 226 Fundamentals of Statistics
BLAW 265 Business Law I 3 cr.

Upper Division 19 cr. hrs.

CBE 300 Professional Development 1 cr.
MNGT 300 Management and Organizational Behavior 3 cr.
MKTG 310 Principles of Marketing 3 cr.
FINC 345 Managerial Finance 3 cr.
ECON 326 Statistical Methods for Economics and Business 3 cr.
MNGT 361 Operations Management 3 cr.
MNGT 485 Strategic Management 3 cr.

Required Management Courses: 9 cr. hrs.

MNGT 320 Human Resource Management 3 cr.
MNGT 340 Ethical Leadership 3 cr.
MNGT 355 International Business 3 cr.

Management Electives: 9 cr. hrs.

Choose from:
MNGT 318 Operations Research 3 cr.
MNGT 330 Managing Workplace Diversity 3 cr.
MNGT 341 Logistics 3 cr.
MNGT 350 Decision Making 3 cr.
MNGT 365 Business Process Management 3 cr.
MNGT 378 Study Abroad 3-6 cr.
MNGT 379 Internship 3 cr.
MNGT 380 International Business Seminar 3 cr.
MNGT 389 Special Topics .5-3 cr.
MNGT 430 Small Business Management 3 cr.
MNGT 480 Human Resource Management Seminar 3 cr.
MNGT 499 Independent Study 1-3 cr.
MKTG 315 Retail Management 3 cr.

Support Electives: 6 cr. hrs.

Choose supporting courses appropriate to area of interest with approval of adviser.

Required Supporting Courses: 3-4 cr. hrs.

ECON 205 Quantitative Analysis 3 cr.
or MATH 156 Calculus for Business and Social Sciences 3 cr.
or MATH 166 Calculus I 4 cr.

General Education Requirements: 31 cr. hrs.

General Electives to reach 120 credits (minimum to graduate)
Undergraduate Business Administration students may not transfer more than six credits of 300/400 level courses from non-AACSB accredited programs and institutions into the major.
Marketing

Business Administration Major—Marketing

Lower Division 23 cr. hrs.

CBE 100 First-Year Seminar: College of Business and Economics 2 cr.
COMS 101 Fundamentals of Oral Communication 3 cr. (double counts as GenEd) OR ENGL 266 Business Writing 3 cr.
ECON 201 Principles of Microeconomics 3 cr.
ECON 202 Principles of Macroeconomics 3 cr.
ACCT 231 Principles of Accounting I 3 cr.
ACCT 232 Principles of Accounting II 3 cr.
CSIS 215 Information Systems for Business Management 3 cr.
ECON 226 Introduction to Statistics 3 cr.
or MATH 226 Fundamentals of Statistics
BLAW 265 Business Law I 3 cr.

Upper Division 19 cr. hrs.

CBE 300 Professional Development 1 cr.
MNGT 300 Management and Organizational Behavior 3 cr.
MKTG 310 Principles of Marketing 3 cr.
FINC 345 Managerial Finance 3 cr.
ECON 326 Statistical Methods for Economics and Business 3 cr.
MNGT 361 Operations Management 3 cr.
MKTG 485 Strategic Management 3 cr.

General Marketing emphasis

Required Marketing Courses 12 cr. hrs.

MKTG 312 Consumer Behavior 3 cr.
MKTG 355 International Marketing 3 cr.
MKTG 365 Marketing Research 3 cr.
MKTG 445 Marketing Strategy 3 cr.

Marketing Electives 9 cr. hrs.

Choose from:

MKTG 315 Retail Management 3 cr.
MKTG 325 Relationship Selling 3 cr.
MKTG 330 Promotional Strategy 3 cr.
MKTG 334 Internet and Direct Marketing 3 cr.
MKTG 342 Services Marketing 3 cr.
MKTG 352 Business to Business Marketing 3 cr.
MKTG 379 Internship in Marketing 3 cr.
MKTG 389 Special Topics in Marketing 3 cr.
MKTG 499 Independent Study 1-3 cr.
MNGT 450 e-Commerce 3 cr.

Support Electives: 6 cr. hrs.

Choose from:

CBE 370 International Study Tour
COMS 213 Intercultural Communications 3 cr.
COMS 306 Nonverbal Communication 3 cr.
COMS 315 Communication and Social Change 3 cr.
CSIS 333 Database Management Systems 3 cr.
ECON 301 Intermediate Micro 3 cr.
ECON 302 Intermediate Macro 3 cr.
ECON 305 Money and Banking 3 cr.

Department of Management and Marketing
124 South Hall
715-425-3335
www.uwrf.edu/CBE/

Stacy Vollmers-Chair, Joy Benson, Michael Fronmueller, Brian Huffman, Ozcan Kilic, Claire McCarty, Wei Zheng

The vision of the College of Business and Economics is to be a community of choice and the regional leader in the acquisition, study, application and sharing of business, economics and information technology knowledge. Consistent with this vision, the college is accredited by the Association to Advance Collegiate Schools of Business (AACSB) International.
ECON 316 Managerial Economics 3 cr.
ECON 324 Labor Economics 3 cr.
ECON 340 Contemporary International Trade 3 cr.
ECON 342 International Finance 3 cr.
ECON 426 Forecasting and Econometrics 3 cr.
ESM 377 Business Ecology 3 cr.
FINC 314 Risk Management and Insurance 3 cr.
FINC 350 Real Estate 3 cr.
FINC 355 Multinational Financial Management 3 cr.
GEOG 250 Introduction to Cartography and GIS 3 cr.
MARC 370 Public Relations 3 cr.
MNGT 318 Operations Research 3 cr.
MNGT 330 Managing Workplace Diversity 3 cr.
MNGT 340 Ethical Leadership 3 cr.
MNGT 355 International Business 3 cr
MNGT 362 Logistical Management 3 cr.
MNGT 430 Small Business Management 3 cr.
PHIL 304 Business Ethics 3 cr.
POLS 256 Public Policymaking 3 cr.
POLS 260 Introduction to International Relations 3 cr.
PSYC 265 Social Psychology 3 cr.
PSYC 320 Psychology of Personality 3 cr.

Professional Sales emphasis

Required Sales Courses 12 cr. hrs.
MKTG 325 Relationship Selling 3 cr.
MKTG 326 Negotiation Techniques 3 cr.
MKTG 327 Sales Analytics 3 cr.
MKTG 425 Advanced Selling Techniques 3 cr.

Sales Electives 6 cr. hrs.
Choose from:
MKTG 329 Sales Force Management 3 cr.
MKTG 379 Internship 3 cr.
MKTG 312 Consumer Behavior 3 cr.
MKTG 352 Business to Business Marketing 3 cr.
MKTG 445 Marketing Strategy 3 cr.
MKTG 315 Retail Management 3 cr.
MKTG 330 Promotional Strategy 3 cr.
MKTG 334 Internet and Direct Marketing 3 cr.
MKTG 342 Services Marketing 3 cr.
MKTG 355 International Marketing 3 cr.
MKTG 499 Independent Study 1-3 cr.
MNGT 450 e-Commerce 3 cr.

Support Electives 9 cr. hrs.
Choose from:
COMS 211 Public Speaking 3 cr.
COMS 213 Intercultural Communication 3 cr.
COMS 306 Nonverbal Communication 3 cr.
COMS 308 Small Group Communication 3 cr.
COMS 312 Argumentation 3 cr.
COMS 318 Communication and Leadership 3 cr.
MARC 311 Persuasion 3 cr.
PHIL 304 Business Ethics 3 cr.
ACCT 356 Managerial Cost Accounting 3 cr.
MNGT 355 International Business 3 cr.
MNGT 330 Managing Workplace Diversity 3 cr.
MNGT 340 Ethical Leadership 3 cr.

Required Supporting Course: 3-4 cr. hrs.
ECON 205 Quantitative Analysis 3 cr.
or MATH 156 Calculus for Business and Social Sciences 3 cr.
or MATH 166 Calculus I 4 cr.

General Education Requirements: 31 cr. hrs.

General Electives to reach 120 credits (minimum to graduate)

Undergraduate Business Administration students may not transfer more than six credits of 300/400 level courses from non-AACSB accredited programs and institutions into the major.
Marketing Communications Major: 42 Total Credits

Core Requirements
Core Requirements: 24 cr. hrs.

- ART 121 2D Design Foundation 3 cr.
- MARC 100 Writing for the Mass Media 3 cr.
- MARC 200 Introduction to Marketing Communications 3 cr.
- MARC 480 Seminar in Theory and Methods of Marketing Communications 3 cr.
- MKTG 311 Principles of Marketing for Marketing Communications Majors 3 cr.
- MKTG 312 Consumer Behavior 3 cr.
- MARC 311 Persuasion 3 cr.

Choose one or more of the following internship courses: 3 cr. hrs.
- MARC 379 Internship in Marketing Communications
- or MARC 279 Cooperative Education/Directed Work Experience
- or any CAFES department 270/370 internship

MARC 279 / MARC 379 may be combined and/or repeated for a total of 4 credit hours.

Electives
Directed Electives: 18 cr. hrs.

Writing Electives-Select one from:
- ENGL 266 Business Writing 3 cr.
- ENGL 367 Technical Writing 3 cr.
- ENGL 371 Proposal Writing: Change Through Rhetoric 3 cr.
- ENGL 374 Cyberliteracy and Writing on the Web 3 cr.
- ENGL 381 Screenwriting 3 cr.
- ENGL 387 Technical and Professional Editing 3 cr.

Visual Electives-Select one from:
- ART 235 Intro to Photography 3 cr.
- ART 241 Graphic Design 1 3 cr.
- ART 242 Design Studio1 3 cr.
- ART 243 Typography 1 3 cr.
- JOUR 222 Intro to Video Storytelling 2 cr.
- JOUR 240 Introduction to Visual Communication 3 cr.
- SASA 112 Intro to Storytelling with Digital Media 3 cr.
- SASA 160 TV Studio Production 3 cr.
- SASA 260 Electronic Field Production 3 cr.
- SASA 360 Advanced Electronic Field Production 3 cr.

Oral Communication Elective-Select one from:
- COMS 211 Public Speaking 3 cr.
- COMS 216 Communication in the Interview 3 cr.
- COMS 312 Argumentation and Decision Making 3 cr.
- COMS 416 Training and Development in Organizations
- MARC 207 Listening Skills 3 cr.

Marketing/Promotion Electives-Select one from:
- AGEC 350 Agricultural Product Marketing 3 cr.
- AGEC 368 Professional Selling 3 cr.
- MKTG 335 MARC Sales Promotion and Event Planning 3 cr.
- MARC 360 Advertising Principles 3 cr.
- MARC 370 Principles of Public Relations 3 cr.

Other Electives:
Select from the following courses or consult with department chair or adviser for additional elective

Interdisciplinary
310 North Hall
715-425-3899
FAX 715-425-0658
www.uwrf.edu/MARC/

Marketing Communications Steering Committee:
James Pratt, Director, Marketing Communications; Erik Johnson, Digital Film & Television; Grace Coggio, Communication Studies; Mialisa Moline, English; Dan Paulus, Art; David Trechter, Agricultural Economics; David Bonko, Marketing Communications; Amelia Reigstad, Marketing Communications.

The interdisciplinary marketing communications major integrates the activities of advertising, public relations, sales promotion, direct marketing, personal selling and cybermarketing into a single professional field of expertise. Students will develop knowledge and skills in oral, written and visual modes of communication. In addition to an introductory course and senior seminar in marketing communications, students will take courses from as many as seven departments in three colleges. Practical experience with current technology tools and a required internship program ensure that students have not only strong academic preparation, but also practical experience in marketing communications activities.

A student may complete the major in Marketing Communications in the College of Arts and Sciences or the College of Agriculture, Food and Environmental Sciences. Please consult your DAR for college-specific course requirements. It is required that a student completing the major in CAFES have a minor in that college. A minor is not offered in marketing communications.

General Education Requirements
Including the following:

Communication: COMS 116 Business and Professional Communication

Math: Proficiency in understanding statistics is required and may be demonstrated by completing one of the following: MATH 216, PSYC 201, ECON 226, MATH 226, AGEC 320, ANSC 341, or an equivalent course. Completion of a listed statistics course may fulfill the general education mathematics requirement. See your adviser for
choices to total 42 credits required in the major. Please check the course descriptions in this catalog for course prerequisites.
AGED 230 Agricultural News Writing 3 cr.
COMS 316 Organizational Communication 3 cr.
JOUR 340 Media Management for News Entrepreneurs 3 cr.
MARC 289 Special Topics in Marketing Communications 3 cr.
MARC 250 MARC Ethics 3 cr.
MARC 320 Evaluating MARC 3 cr.
MARC 330 MARC for Non-profit Organizations 3 cr.
MARC 335 MARC Sales Promotion and Event Planning (if not chosen in Category 6) 3 cr.
MARC 340 MARC Sports Marketing 3 cr.
MARC 230 Intro to Social Media MARC, 3 cr.
MARC 345 MARC Campaigns 3 cr.
MARC 350 MARC Branding 3 cr.
MARC 360 Advertising Principles 3 cr.
MARC 361 Advertising Methods 3 cr.
MARC 370 Introduction to Public Relations 3 cr.
MARC 371 Public Relations Methods 3 cr.
MARC 389 Special Topics in Marketing Communications 3 cr.
MKTG 315 Retail Management 3 cr.
MKTG 325 Sales Effectiveness 3 cr.
MKTG 334 Internet and Direct Marketing 3 cr.
MKTG 342 Services Marketing 3 cr.
MKTG 355 International Marketing 3 cr.
MKTG 365 Marketing Research 3 cr.
PSYC 250 Industrial and Organizational Psychology 3 cr.
PSYC 361 Psychological Foundations of Employee Selection 3 cr.
PSYC 362 Psychological Foundations of Employee Training 3 cr.

Supporting Courses

Required Supporting Courses: 9 credits
MATH 216 Elementary Statistical Concepts
OR MATH 126, Activities in Math
OR ECON 226, Introduction to Statistics
OR MATH 226, Fundamentals of Statistics
OR PSYC 201 Behavioral Statistics
OR AGEC 320, Statistical Methods
OR ANSC 341 Biometrics
JOUR 101 Introduction to Mass Communications
COMS 116 Business and Professional Communication (CAS/CBE);

Other requirements:

Portfolio: Prior to graduation, students must complete and present a professional portfolio for approval to the marketing communications unit.
Internship: An internship or approved directed work experience is required. It is the student's responsibility to originate an internship or directed work experience that meets marketing communications departmental criteria. Internships and directed work experiences must be approved by the Marketing communications internship supervisor before the work is done.
GPA: Students must maintain a 2.50 grade point average in the Marketing Communications Major.
Mathematics Major

Mathematics Major - Liberal Arts

Mathematics Major - Liberal Arts: 38 Total Credits

Required Courses: 20 cr. hrs.
MATH 166 Calculus I 4 cr.
MATH 167 Calculus II 4 cr.
MATH 236 Discrete Mathematics 4 cr.
MATH 256 Linear Algebra 3 cr.
MATH 268 Calculus III 4 cr.
MATH 385 Writing in Mathematics 1 cr.
or MATH 495 Undergraduate Research in Mathematics 1 cr.

Directed Electives: 18 cr. hrs.
Select at least six mathematics courses numbered higher than 300, excluding MATH 305 and 436

Required Supporting Courses: 3 cr. hrs.
Select one from:
MATH 205 Mathematical Programming 3 cr.
or
PHYS 211 Scientific Program 3 cr.
or
CSIS 162 Programming II 3 cr.

Mathematics Major - Education

Professional Education Courses 39 cr. hrs.
TED 100 Introduction to Education 3 cr.
TED 212 Educational Psychology 5 cr.
TED 252 Foundations of Multicultural Education (d) 3 cr.
TED 420 School and Society 3 cr.
TED 438 Techniques in Middle/Sec. Education: Mathematics 3 cr.
TED 464 Content Area Literacy in Middle & Secondary School Mathematics 3 cr.
TED 467 Management Strategies for the Secondary Mathematics Classroom 3 cr.
SPED 330 Exceptional Child 3 cr.
TED 472 Student Teaching: Initial 12 cr.
or
TED 479 K-12 Internship Teaching 12 cr.
or
TED 474 Student Teaching: COST 12 cr.

TED 414 Development of the Transescent 4 cr.

Major Requirements 37 Total Credits

Required Courses: 31 cr. hrs.
MATH 166 Calculus I 4 cr.
MATH 167 Calculus II 4 cr.
MATH 236 Discrete Mathematics 4 cr.

Department of Mathematics

207 North Hall
715-425-3326
www.uwrf.edu/MATH/

Laurel Langford-Chair, Arunendu Chatterjee, Keith Chavez, Robert Coffman, Ioana Ghenciu, Erick Hofacker, Keith Nabb, Kathy Tomlinson, Alexandru Tupan.

The mathematics department offers two options for mathematics majors, the liberal arts option and the education option. Both are based on a common core curriculum of 18 credit hours.

1. The liberal arts mathematics major is designed for students who desire a general education in mathematics as a background for graduate school or a career related to mathematics.

2. The education mathematics major is designed for prospective secondary school teachers. The curriculum provides the student with specialized preparation in mathematics and professional training required to obtain teacher certification.

General Education Requirements
MATH 256 Linear Algebra 3 cr.
MATH 268 Calculus III 4 cr.
MATH 351 Abstract Algebra 3 cr.
MATH 356 Probability 3 cr.
MATH 411 Geometry 3 cr.
MATH 316 Mathematical Modeling 3 cr.
or
MATH 326 Applied Statistics 3 cr.
or
MATH 357 Mathematical Statistics 3 cr.

Directed Electives: 6 cr. hrs.
Select at least two mathematics courses numbered higher than 300, excluding MATH 305, 371, 379 and 436

Required Supporting Courses: 5 cr. hrs.
MATH 436 History of Mathematics (writing intensive) 2 cr.
MATH 305 Integrating Technology in Teaching Secondary Mathematics 3 cr
Mathematics Minor

Mathematics Minor - Liberal Arts
Mathematics Minor - Liberal Arts: 25 Total Credits

Required Courses: 19 cr. hrs.
MATH 166 Calculus I 4 cr.
MATH 167 Calculus II 4 cr.
MATH 236 Discrete Mathematics 4 cr.
MATH 256 Linear Algebra 3 cr.
MATH 268 Calculus III 4 cr.

Directed Electives: 6 cr. hrs.
Select at least two mathematics courses numbered 300 or higher excluding MATH 305 and 436

Required Supporting Courses: 3 cr. hrs.
Select one from
MATH 205 Mathematical Programming 3 cr.
or PHYS 211 Scientific Programming 3 cr.
or CSIS 162 Programming II 3cr.

Mathematics Minor - Education
Early Adolescence - Adolescence
Mathematics Minor - Education: 24-25 Total Credits

Required Courses: 21 cr. hrs.
MATH 166 Calculus I 4 cr.
MATH 167 Calculus II 4 cr.
MATH 236 Discrete Mathematics 4 cr.
MATH 256 Linear Algebra 3 cr.
MATH 326 Applied Statistics 3 cr.
MATH 411 Geometry 3 cr.

Directed Electives: 3-4 cr. hrs.
Select one mathematics course numbered 268 or higher excluding MATH 279, 305, 371, 379 and 436

Required Supporting Courses: 5 cr. hrs.
MATH 305 Integrating Technology in Teaching Mathematics 3 cr.
MATH 436 History of Mathematics 2 cr.

Professional Courses (in addition to the major) 6 cr. hrs.
TED 438 Techniques in Middle/Sec. Education: Mathematics 3 cr.
TED 414 Development of the Transescent 3 cr.

Mathematics Minor - Middle Childhood - Early Adolescence
For Elementary Education Majors

Minor Requirements 22-23 Total Credits

Required Courses: 16 cr. hrs.
MATH 166 Calculus I 4 cr.
MATH 216 Elementary Statistical Concepts 3 cr.
MATH 236 Discrete Mathematics 4 cr.
MATH 248 Elementary Mathematics from an Advanced Standpoint 3 cr.
MATH 436 History of Mathematics 2 cr.

Directed Electives: 6-7 cr. hrs.
select two of the following
MATH 167 Calculus II 4 cr.
MATH 256 Linear Algebra 3 cr.
MATH 260 LOGO for Teachers 3 cr.
MATH 306 Number Theory 3 cr.
MATH 336 Combinatorics and Graph Theory 3 cr.
MATH 351 Abstract Algebra 3 cr.
MATH 356 Probability 3 cr.

Department of Mathematics
207 North Hall
715-425-3326
www.uwrf.edu/MATH/

Laurel Langford-Chair, Arunendu Chatterjee, Keith Chavey, Robert Coffman, Ioana Ghenciu, Erick Hofacker, Keith Nabb, Kathy Tomlinson, Alexandru Tupan.
MATH 361 Symbolic Logic 3 cr.
MATH 411 Geometry 3 cr.

Mathematics Minor - Business or Social Science

Mathematics Minor - Business or Social Science: 24-25 Total Credits

Required Courses: 18 cr. hrs.
MATH 166 Calculus I 4 cr.
MATH 167 Calculus II 4 cr.
MATH 236 Discrete Mathematics 4 cr.
MATH 256 Linear Algebra 3 cr.
MATH 226 Fundamental of Statistics 3 cr.
or MATH 326 Applied Statistics

Directed Electives: 6-7 cr. hrs.
Select two mathematics courses numbered 268 or higher, excluding MATH 279, MATH 305, MATH 326 and MATH 436
Military Science and Leadership Minor

Military Science and Leadership Minor: 23-27 Credits

Military Science Area of Emphasis - 8-10 cr. hrs.
MSL 101 Leadership and Personal Development 2 cr.
MSL 102 Introduction to Tactical Leadership 2 cr.
MSL 201 Innovative Team Leadership 3 cr.
MSL 202 Foundations of Tactical Leadership 3 cr.
For students who have completed Basic Military Training or the Leaders Training Course
MSL 301 Adaptive Team Leadership 4 cr.
MSL 302 Leadership Under Fire 4 cr.

Communication Area of Emphasis - 3 cr. hrs.
Select one course
CSTA 101 Fundamentals of Oral Communication 3 cr.
CSTA 116 Business and Professional Communication 3 cr.

History Area of Emphasis - 3 cr. hrs.
Select one course
HIST 327 WWI to WWII 3 cr.
HIST 328 WWII to Cold War 3 cr.
HIST 332 The Islamic Middle East to 1500 3 cr.
HIST 358 United States History 1890-1945 3 cr.
HIST 359 United States History From 1945 3 cr.

Human Society Area of Emphasis - 6-8 cr. hrs.
Select two courses
ANTH 100 Introduction to Anthropology 3 cr.
CHIN 102 Beginning Chinese II 4 cr.
ETHN 200 Ethnic Studies 3 cr.
FREN 102 Beginning French II 4 cr.
GEOG 120 Human Geography 3 cr.
GERM 102 Beginning German II 4 cr.
INTS 200 Introduction to International Studies 3 cr.
JAPN 102 Beginning Japanese II 4 cr.
PHIL 240 Social Ethics 3 cr.
PHIL 245 Eastern Religions and Islam 3 cr.
POLS 256 Public Policy Making 3 cr.
POLS 260 Introduction to International Relations 3 cr.
POLS 364 International War and Peace 3 cr.
POLS 365 American Foreign Policy 3 cr.
POLS 367 History of United States Foreign Policy 3 cr.
SOCI 208 Sociology of Diversity 3 cr.
SPAN 102 Beginning Spanish II 4 cr.

Leadership and Management Area of Emphasis - 3 cr. hrs.
Select one course
MNGT 300 Management and Org Behavior 3 cr.
MNGT 330 Managing Workplace Diversity 3 cr.
MNGT 340 Ethical Leadership 3 cr.
PHIL 230 Logical Reasoning 3 cr.
POLS 225 Public Administration 3 cr.
Modern Language Major

Spanish

Modern Language Major - Liberal Arts: 34 Total Credits

Spanish Option-Liberal Arts

Required Courses: 19 cr. hrs.

SPAN 102 Beginning Spanish II 4
SPAN 201 Intermediate Spanish I 3
SPAN 202 Intermediate Spanish II 3
SPAN 301 Conversation and Composition I 3
SPAN 302 Conversation and Composition II 3
SPAN 401 Advanced Spanish Communication 3

Directed Electives: 15 cr. hrs

Select 6 credits from:

SPAN 341 Spanish Civilization to 1800 3
SPAN 342 Spanish Civilization 1800 to Present 3
SPAN 345 Latin American Civilization to 1800 3
SPAN 346 Latin American Civilization 1800 to Present 3
MODL 376 Mexico: A Culture Experience 3
OR
MODL 379 Internship in Modern Language 2-3

Note: Majors may take either

MODL 379 or MODL 376, but not both

Select 6 credits from either Category A or B:

Category A:

SPAN 351 Survey of Spanish Literature -Siglo de Oro 3
SPAN 352 Survey of Spanish Literature-Generation of 1898 to Present 3
SPAN 355 Survey of Latin American Literature- Conquest to Independence 3
SPAN 356 Survey of Latin American Literature- Independence to Present 3

Category B:

SPAN 371 Business and Culture in the Hispanic World 3
SPAN 372 Spanish for the trades and Professions 3
SPAN 373 Spanish Translation for the Professions 3
SPAN 374 Spanish Professional Writing 3

Select 3 credits from:

SPAN 452 Advanced Spanish Literature 3
SPAN 455 Advanced Latin American Literature 3

Spanish Option-Education

Complete Spanish Major Liberal Arts Option program above

Required Supporting courses not part of major: 7 cr. hrs.

SPAN 350 Spanish Phonetics 3
TED 437 Techniques of Middle/Secondary Education: Modern Language 2
TED 448 Techniques of Elementary Education: Modern Language 2

Department of Modern Language

284 Kleinpell Fine Arts
715-425-3121
www.uwrf.edu/MODL/

- Marshall Toman, Chair
- Cecilia Bustamante
- Rebecca Raham
- Magara Maeda
- Kaishan Kong
- Julie Kovacic
- Daniela Goldfine
- Erin Russ

Emeriti:

- Kristine Butler
- Peter Johanssen
- Terrence Mannetter
- Sandra Soares

The Modern Language Department offers a major in Modern Language-Spanish. This program leads to a B.A. or B.S. degree in liberal arts or a B.S. degree in secondary education. Additional options include: minors in Spanish and Asian Studies (interdisciplinary) as well as two years of Chinese and Japanese coursework.

Students who have studied a modern language in high school should take the Wisconsin Modern Language Placement Test, offered in spring Regional Testing and during all registration periods. Students may test out of up to fourteen credits. Test-out credits are not granted until the student completes the next level course with the grade of B- or better.

General Education Requirements

BA and BS Liberal Arts majors as listed for CAS;
BS Education majors as listed for CEPS.
Music Major

Bachelor of Arts or Bachelor of Science - Liberal Arts Music

Music Major - Liberal Arts (minor required): 46 Total Credits

Requirements: 35 cr. hrs.
MUS 130 Music Theory and Ear Training I 4 cr.
MUS 131 Music Theory and Ear Training II 4 cr.
MUS 230 Music Theory and Ear Training III 4 cr.
MUS 231 Music Theory and Ear Training IV 4 cr.
MUS 234 Music History and Literature I 4 cr.
MUS 235 Music History and Literature II 4 cr.
MUS 333 20th Century Music 3 cr.
MUSA 100 level Applied Music-credits must be in the same area. 4 cr.
MUSE Music Ensembles 4 cr.
Directed Electives: 11 cr. hrs.
MUSA or MUSE Performance credits (Applied Music or Ensembles) 4 - 6 cr.
Music Pedagogy, Techniques Course(s) or Academic Music course 200 level and above 4 - 6 cr.

Bachelor of Music Education

Music Education Major 69 Total Credits

Requirements: 36 cr. hrs.
MUS 130 Music Theory and Ear Training I 4 cr.
MUS 131 Music Theory and Ear Training II 4 cr.
MUS 230 Music Theory and Ear Training III 4 cr.
MUS 231 Music Theory and Ear Training IV 4 cr.
MUS 234 Music History and Literature I 4 cr.
MUS 235 Music History and Literature II 4 cr.
MUS 240 Piano Proficiency - Examination: MUS 140 0 cr.
(Class Piano) must be taken until 240 is passed; 140 and 240 credits are not counted toward music major.
MUS 333 20th Century Music 3 cr.
MUS 351 Music Education I 3 cr.
MUS 352 Music Education II 3 cr.
MUS 491 Senior Recital 0 cr.
MUS 200+ Any Music Course 200 and above 3 cr.
Pianists must take MUS 440: Piano Pedagogy

Required Courses for Choral/General Certification: 33 cr. hrs.
MUSA 127 Applied Voice-Pianists may substitute 3 cr. of Applied Piano MUSA 125 (2 per semester) 8 cr.
MUSA 327 Applied Voice (upper level)-Pianists may substitute 3 cr. of Applied Piano MUSA 325 (2 per semester) 6 cr.
MUSE 108 Concert Choir (required each semester)
MUS 102 Class Guitar 1 cr.
MUS 247 Diction I: IPA and Italian 1 cr.
MUS 248 Diction II: German and French 1 cr.
MUS 341 Vocal and Choral Pedagogy 3 cr.
MUS 342 Conducting 2 cr.
MUS 344 Choral Conducting 2 cr.
MUS 331 Choral Composition and Arranging 3 cr.
MUS 340 Opera Techniques 3 cr.
MUS 433 Choral Literature 3 cr.

Required Courses for Instrumental/General Certification: 27 cr. hrs.
MUSA 100 level Applied-credits must be in the same area (2 per semester) 8 cr.
MUSA 300 level Applied-upper level-credits must be in the same area (2 per semester) 6 cr.
MUSE 111 University-Community Orchestra
or MUSE 113 Wind Ensemble (large ensemble required each semester)

Department of Music

B46 Kleinpell Fine Arts
715-425-3183
www.uwrf.edu/MUS/

Kristin Tjornehoj - Chair

The University of Wisconsin-River Falls Music Department offers high-quality undergraduate programs in music leading to the degrees Bachelor of Music Education, Bachelor of Arts in Music, Bachelor of Science in Music, as well as Minors in Music and Musical Theater. The University of Wisconsin-River Falls is an accredited institutional member of the National Association of Schools of Music (NASM).

The Bachelor or Arts (B.A.) and Bachelor of Science (B.S.) degrees are designed for students seeking admittance to a professional graduate school, or pursuing a music related career. The B.A. degree does not require a minor, however it does require a selection of courses Language Competency and International Components. The B.S. degree requires a minor or double major. The B.A. and B.S. degrees do not provide teacher certification.

The Bachelor of Music Education (B.M.E.) degree is designed to train and certify public school music teachers. In the B.M.E. degree program, students may elect either a Choral/General Music (K-12) emphasis (includes a piano-vocal option), or an Instrumental/General Music (K-12) emphasis. The B.M.E. degree does not require a minor.

The department also offers a Music Minor (non-teaching) and a Musical Theatre Minor. All applicants for admission to degree programs in music must satisfactorily complete a performance audition. Audition requirements for all performance areas are available from the Music Department. In addition to the performance audition, all transfer applicants must take a music
MUS 102 Class Guitar 1 cr.
MUS 103 Class Voice 1 cr.
MUS 141 String Techniques 1 cr.
MUS 241 Woodwind Techniques I 1 cr.
MUS 243 Brass Techniques I 1 cr.
MUS 245 Percussion Techniques I 1 cr.
MUS 342 Conducting 2 cr.
MUS 343 Instrumental Conducting 2 cr.
MUS 330 Orchestration 3 cr.
MUS 431 Instrumental Literature 3 cr.

**Required for Teacher Certification: 32 cr. hrs.**

(not counted in major total)

**Choral/General or Instrumental/General (courses to be taken in the College of Education)**

TED 100 Introduction to Education 3 cr.
TED 211 or TED 212 Educational Psychology: Middle and Secondary Education 5 cr.
TED 252 Multicultural Education 3 cr.
TED 420 School and Society 3 cr.
TED 422 Content Area Literacy 3 cr.
SPED 330 The Exceptional Child 3 cr.
TED 472 Student Teaching - Initial 12 cr.
or
TED 479 K-12 Internship Teaching 12 cr.
or
TED 474 Student Teaching - COST 12 cr...

This theory and history placement exam. The results of the exam will determine the appropriate course levels. Music students should consult the department handbook, which clarifies course requirements and provides additional pertinent information.

The University of Wisconsin-River Falls is an accredited institutional member of the National Association of Schools of Music.

**General Education Requirements**

BA and BS Liberal Arts majors as listed for CAS.
BS Education majors as listed for CEPS.
Music Minor

Music Minor: 24 Total Credits

Required Courses: 16 cr. hrs.
MUS 130 Music Theory and Ear Training I 4 cr.
MUS 131 Music Theory and Ear Training II 4 cr.
MUS 234 Music History and Literature I (writing intensive) (can be double counted in Gen. Ed.) 4 cr.
MUS 235 Music History and Literature II (writing intensive) 4 cr.

Directed Electives: 8 cr. hrs.
MUS Choose from the areas of music history, music theory, jazz, composition, piano pedagogy, or applied.

Department of Music
B46 Kleinpell Fine Arts
715-425-3183
www.uwrf.edu/MUS/

Kristin Tjornehoj - Chair
Mike Alexander, Joy Killough Amel, Charles Asch, Thomas Barnett, Peter Benson, Alexandra Berndt, Gary Bird, Paul Budde, Patti Cudd, Laura Edman, Deborah Fristad, Rick Gaynor, Eric Graham, Joseph Hagedorn, Craig Hara, Layton 'Skip' James, Tina James, Ivan Konev, Alicia McQuerrey, David Milne, Natalia Moiseeva, Patrick O'Keefe, J.W. Park, J. Michael Roy, Jack Stamp, Jan Stein.
Musical Theatre Minor

Musical Theatre Minor: 24 Total Credits

Required Courses: 18 cr. hrs.
- MUS 103 Class Voice 1 cr.
- MUS 130 Music Theory and Ear Training I 4 cr.
- MUS 131 Music Theory and Ear Training II 4 cr.
- MUS 225 Voice for the Actor 1 cr.
- SASA 121 Acting I: Basic Techniques 3 cr.
- SASA 225 Musical Theatre Performance 3 cr.
- SASA 375 Theatre Practicum: Production 2 cr.

Directed Electives: 2 cr. hrs.
Select from the following:
- DANC 107 Social Dance .5 cr.
- DANC 110 Basic Jazz Dance .5 cr.
- DANC 120 Fundamentals of Movement through Dance 1 cr.
- DANC 150 Dance Improvisation 1 cr.
- DANC 224 Ballet I 1 cr.

Electives: 4 cr. hrs.
Select from the following:
- DANC 107 Social Dance .5 cr.
- DANC 110 Basic Jazz Dance .5 cr.
- DANC 224 Ballet I 1 cr.
- DANC 260 Dance Repertory 1-3 cr.
- SASA 131 Design for the Theatre 3 cr.

A maximum of 3 credits from the following 3 courses may be applied toward electives:
- SASA 221 Acting for Stage and Screen II 3 cr.
- SASA 231 Creating Artistic Environments for Stage and Screen 3 cr.
- SASA 232 Costume/Makeup for Stage and Screen 3 cr.
- SASA 233 Light and Sound for Stage and Screen 3 cr.
- SASA 337 History of Theatre 3 cr.
- MUS 127 Applied Voice (a maximum of 2 may be applied toward electives) 1 cr.
- MUS 230 Music Theory and Ear Training III 4 cr.
- MUS 340 Opera Techniques 3 cr.

Students majoring in Music or Speech (any emphasis) may not double count any course when completing the Musical Theatre Minor.

Speech Communication and Theatre Arts and Music majors should consult with an adviser and substitute other electives (from the list above) for those required in both their major and minor.

Interdisciplinary
The minor in Musical Theatre, offered as a collaborative effort between the departments of communication studies and theatre arts and music, is designed to provide students an opportunity to gain formal training. It includes courses in music theory and performance, dance styles, and stage movement, as well as additional courses in theatrical performance, production and design, with special consideration to their application in creation of and performance in musical production. This minor is available to all students, including music and theatre majors and minors.
Neuroscience Major

Neuroscience Major: 69-71 Total Credits
Core Courses - 49-51 Credits

*Introductory Courses*
- NSCI 111 Introduction to Neuroscience 4 cr.
- PHIL 220 Bioethics 3 cr.

*Quantitative Courses*
- MATH 147 College Algebra & Trigonometry 3 cr. or MATH 149 Precalculus 4 cr. or MATH 166 Calculus I 4 cr.
- PSYC 201 Behavioral Statistics 3 cr. or MATH 231 Biostatistics 3 cr.

*Biology Courses*
- BIOL 101 Biology Concepts 3 cr.
- BIOL 240 Cellular and Molecular Biology 3 cr.
- BIOL 342 Anatomy and Physiology II 4 cr.
- BIOL 351 Epigenetics 3 cr.
- BIOL 356 Neurobiology

*Chemistry Courses*
- CHEM 120 Introduction to General Chemistry 6 cr. or CHEM 121 General Chemistry I 5 cr. or CHEM 130 Introduction to Organic Chemistry 5 cr.

*Psychology Courses*
- PSYC 101 General Psychology 3 cr.
- PSYC 216 Research Methods 3 cr.
- PSYC 310 Memory and Thinking 3 cr.
- PSYC 350 Sensation and Perception 3 cr.
- PSYC 355 Physiological Psychology 3 cr.

Electives - 20 Credits

**Psychology Courses**
- PSYC 269 Health Psychology 3 cr.
- PSYC 280 Drugs and the Nervous System 3 cr.
- PSYC 305 Learning and Motivation 3 cr.
- PSYC 315 Psychological Measurement and Evaluation 3 cr.
- PSYC 316 Advanced Research Methods 3 cr.
- PSYC 325 Abnormal Psychology 3 cr.
- PSYC 335 Developmental Psychology: Childhood and Adolescence
- PSYC 336 Developmental Psychology: Adulthood and Aging
- PSYC 340 Animal Behavior
- PSYC 375 Psychology of Human Sexuality

**Biology Courses**
- BIOL 195 Freshman Research Experience
- BIOL 295 Lab Research Experience
- BIOL 305 Applications in Molecular Biology
- BIOL 324 Microbiology
- BIOL 341 Anatomy and Physiology I
- BIOL 345 Immunology

Department of Psychology
151 Centennial Science Hall
715-425-3306
www.uwrf.edu/PSYC/

Dr. Travis Tubré-Chair, Dr. Melanie Ayres, Dr. James Cortright, Dr. Cynthia Kernahan, Dr. Daniel Linwick, Dr. Richard Seefeldt, Dr. Todd Wilkinson.
Jody Sather-Academic Department Associate

The vision of the Department of Psychology at the University of Wisconsin-River Falls is to continue providing students with a solid foundation in psychology. We seek to achieve regional and national recognition by offering excellent teaching, fostering research and dissemination of results, promoting global and multicultural perspectives, and preparing alumni for graduate study and professional careers. We will cultivate ethical and social development through our curriculum, student organizations, and community service.
### Chemistry Courses

- CHEM 122 General Chemistry II
- CHEM 231 Organic Chemistry I
- CHEM 232 Organic Chemistry II
- CHEM 233 Foundations of Organic Chemistry
- CHEM 236 Organic Chemistry Lab I
- CHEM 237 Organic Chemistry Lab II
- CHEM 240 Principles of General Chemistry
- CHEM 250 Foundations of Analytical Chemistry
- CHEM 355 Separation Science Lab
- CHEM 360 Foundations of Biochemistry or CHEM 361 and CHEM 362 Biochemistry I & II
- CHEM 366 Biochemistry Lab
- CHEM 461 Pharmacology

### Computer Science Courses

- CSIS 239 Introduction to Data Science*
- CSIS 334 Data Visualization*
- CSIS 373 Intro to Bioinformatics
- CSIS 452 Applied Machine Learning*

*note: Computer Science courses require prerequisite course(s) that are not included within the program

### Physics Courses

- PHYS 121 Algebra-Based Physics I
- PHYS 122 Algebra-Based Physics II
- PHYS 131 Calculus-Based Physics I
- PHYS 132 Calculus-Based Physics II
Outdoor Education Minor

Program Requirements

24 Total Credits

**Required Courses: 14-17 cr. hrs.**

P ED 201 Outdoor Education Summer Concepts and Skills (Sp) 3 cr.
P ED 202 Outdoor Education Winter Concepts and Skills (Sp) 3 cr.
P ED 275 Leadership in School-Based Adventure Education (F) 3 cr.
P ED 301 Foundation of Outdoor Leadership (F) (Pre-req P ED 201 & 202) 3 cr.
P ED 371 Recreation Field Study (F/Sp/Item/Summer) 1-4 cr.
SFED 200 First Aid and Basic Life Support (F/Sp) (SFED 212 Sp also accepted) .5 cr.

**Electives 7-10 cr. hrs.**

BIOL 210 General Botany (F/Sp) (Pre-req BIOL 150) 3 cr.
ESM 151 Introduction to Land use Theory & Practice (F/Sp) 3 cr.
ESM 300 Environmental Education (F/Sp) 3 cr.
ESM 307 Cultural Perspectives on the Environment 3 cr.
EXSS 450 Sport, Fitness and Recreation Management (F) 3 cr.
GEOG 110 Physical Environment: Patterns & Systems (F/Sp) 3 cr.
GEOG 212 Weather & Climate (F, alternate years) 3 cr.
GEOG 250 Introduction to Geographic Information Science (F/Sp) 3 cr.
GEOL 101 Introduction to Geology (F/Sp) 3cr.
GEOL 102 Introduction to Geology Laboratory (F/Sp) 1 cr.
GEOL 269 Environmental Geology (F) 3 cr.
P E 118 Scuba (F/Sp) .5 cr.
P ED 105 Backpacking/Wilderness Awareness (Summer w/P ED 106 & 255) 1 cr.
P ED 106 Canoeing (Summer w/P ED 105 & 255 1 cr.
P ED 109 Recreational Climbing (F/Sp) 1 cr.
P ED 147 Water Safety Instructor (Sp) 2 cr.
P ED 255 Techniques in Sport Fishing (Summer w/P ED 105 & 106) 1 cr.
P ED 300 Adapted Physical Education (F) (Pre-req P ED 245) 3 cr.
POLS 355 Environmental Law (Pre-req POLS 114 & BIOL 100 or 150) 3 cr.
SOCI 343 Sociology of Sport and Leisure (F) (Pre-req SOCI 100) 3 cr.

Department of Health and Human Performance

Falcon Center
A156, HHP Suite
715-425-3705
www.uwrf.edu/HHP/

Chair- Paul Shirilla, Faculty - Jeff Berkhof, Kristen Csiacsek, Patti Ford, Steve Freeman, Stacy Fumess, Don Glover, Joe O’Kroy, Robert Ritzer, Zach Rourk, Jodee Schaben, Matt Walker, Jake Wissing
Philosophy Minor

Philosophy Requirements, 24 Total Credits

Select one PHIL course at the 300 level or higher

PHIL 301 Environmental Ethics, Liberalism and Capitalism
PHIL 303 Environmental Ethics
PHIL 304 Business Ethics
PHIL 307 Western Political Thought: Greece to the Middle Ages
PHIL 308 Renaissance to Marx
PHIL 309 Western Political Thought: Nietzsche to the Present

PHIL 310 Philosophy and History of Visual Art
PHIL 311 Philosophy of Law
PHIL 316 Media Ethics
PHIL 318 Religion and Politics
PHIL 323 Science & the Philosophers of the Age of Enlightenment
PHIL 345 God, Religion & Sciences
PHIL 369 American Intellectual History
PHIL 389 Special Topics in Philosophy
PHIL 415 Philosophy of History
PHIL 489 Special Topics in Philosophy
PHIL 499 Independent Study

DIRECTED ELECTIVES: 21 cr. hrs.

Select 7 additional PHIL courses

Department of History and Philosophy
307 Kleinpell Fine Arts
715-425-3164
www.uwrf.edu/HIST/

History: Michael Kahlow-Chair, Ryan Fischer, Samuel Gale, Victoria Houseman, Kiril Petkov and Zhiguo Yang

Philosophy: Imtiaz Moosa and Walter Wietzke

Philosophical inquiry aims at uncovering, analyzing, and evaluating the fundamental values and assumptions implicit in various human activities and practices such as science, the arts, religion, morality, and social and political institutions. Its ultimate goal is to develop a coherent view of the world and our place in it. Philosophy focuses on sharpening the ability to analyze, reason, and write effectively.
Physical Science Major

Physical Science: 58-60 cr. hrs.
(Physics and Chemistry)
For Secondary Education Students
MATH 167 Calculus II 4 cr.

PHYS 121 Algebra-Based Physics I 5 cr.
PHYS 122 Algebra-Based Physics II 5 cr.
or PHYS 131 Calculus-Based Physics II 5 cr.
PHYS 132 Calculus-Based Physics II 5 cr.

PHYS 264 Modern Physics 4 cr.
PHYS 311 Electronics: Circuits and Devices 4 cr.
PHYS 362 Mathematics of Physics and Engineering II 3 cr.

CHEM 121 General Chemistry I 5 cr.
or CHEM 120 Introduction to General Chemistry 6 cr.
CHEM 122 General Chemistry II 5 cr.

CHEM 231 Organic Chemistry I 3 cr.
CHEM 236 Organic Chemistry I Lab 1 cr.
CHEM 232 Organic Chemistry II 3 cr.
CHEM 237 Organic Chemistry II Lab 1 cr.

CHEM 250 Foundations of Analytical Chemistry 4 cr.
CHEM 261 Laboratory Safety 2 cr.

Choose 6 credits from the following electives:
PHYS 204 Intermediate Physics Lab 1 cr.
PHYS 220 Science of Light 3 cr.
PHYS 250 Statics 3 cr.
PHYS 312 Electronics: Linear Integrated Circuits 4 cr.
PHYS 313 Digital Electronics 4 cr.
PHYS 318 Astrophysics 3 cr.
PHYS 331 Curriculum Physics 3 cr.

Choose one of the following electives:
CHEM 311 Polymer Chemistry 3 cr.
CHEM 322 Inorganic Chemistry 4 cr.
CHEM 340 Physical Chemistry of Biological Systems 3 cr.
CHEM 341 Chemical Thermodynamics and Kinetics 3 cr.
CHEM 342 Molecular Structure and Spectroscopy 3 cr.
CHEM 361 Biochemistry I 3 cr. (requires BIOL 150 as prerequisite)
CHEM 461 Pharmacology 3 cr.

Earth and Space Science Licensing:
An Earth and Space Science license will be earned upon completion of the coursework listed below.
This additional concentration is based on 16-19 total credits of earth and space science coursework.
Overlap with required and elective coursework in the major will allow for this add-on license to be completed with an additional 5-11 credits.

GEOL 269 Environmental Geology 3 cr. (completed in major)
GEOL 102 Introductory Geology Lab 1 cr. (completed in major)
ESM 302 Environmental Education Lab 1 cr. (completed in major)
PHYS 117 Astronomy 3 cr. (completed in major)
GEOL 330 Meteorology 3 cr.

Choose 2 of the following courses:
GEOL 150 Historical Geology 4 cr.
PHYS 318 Astrophysics 3 cr. (possible elective in major)
GEOL 305 Geology of the Planets 2 cr.
GEOL 441 Introduction to Geophysics 4 cr.

Recommended Supplemental Coursework:
GEOL 202 Oceanography 3 cr.
ESM 360 Hydrology and Water Quality 4 cr.
Physics Major
Liberal Arts

Physics Major-Liberal Arts
Physics Core Requirements: 26 cr. hrs.
The prerequisite courses for all courses required in the physics major must be passed with a grade of C or better
PHYS 131 Calculus-Based Physics I 5 cr.
PHYS 132 Calculus-Based Physics II 5 cr.
PHYS 204 Intermediate Physics Laboratory 1 cr.
PHYS 264 Modern Physics 4 cr.
PHYS 301 Advanced Physics Laboratory I (writing intensive) 3 cr.
PHYS 302 Advanced Physics Laboratory II (writing intensive) 3 cr.
PHYS 311 Electronics: Circuits and Devices 4 cr.
PHYS 485 Seminar (writing intensive) 1 cr.

Required Supporting Courses: 20 cr. hrs.
MATH 166 Calculus I 4 cr.
MATH 167 Calculus II 4 cr.
MATH 331 Differential Equations 3 cr.
PHYS 211 Scientific Programming 3 cr.
or CSIS 162 Programming II
PHYS 361 Mathematics of Physics and Engineering I 3 cr.
PHYS 362 Mathematics of Physics and Engineering II 3 cr.

Option I 50 Total Credits
Recommended as preparation for graduate studies in physics or for industrial research.

Physics Major Core 26 cr. hrs.
Directed Electives in Physics 24 cr. hrs.
Choose from courses below:

Option II 36 Total Credits
Recommended for students wanting maximum flexibility for study in other areas
Physics Major Core 26 cr. hrs.
Directed Electives in Physics 10 cr. hrs.
Choose from courses below:

Directed Electives in Physics
PHYS 279 Introduction to Internships 1 cr.
PHYS 312 Electronics: Linear Integrated Circuits
or PHYS 313 Digital Electronics 4 cr.
PHYS 318 Astrophysics 3 cr.
PHYS 324 Acoustics 3 cr.
PHYS 379 Cooperative Education and Internship 3 cr.
PHYS 415 Thermodynamics 3 cr.
PHYS 420 Optics 4 cr.
PHYS 426 Nuclear and Particle Physics 4 cr.
PHYS 427 Condensed Matter Physics 4 cr.
PHYS 441 Classical Mechanics 4 cr.
PHYS 442 Electricity and Magnetism 4 cr.
PHYS 465 Quantum Mechanics 3 cr.

Applied Option 50 Total Credits
Recommended as preparation for a career in an industrial or government laboratory, or for graduate study in Applied Physics, Electronics, Engineering Physics, and Geophysics.

Core Requirements 26 cr. hrs.
Required Courses in Physics 24 cr. hrs.
PHYS 250 Statics 3 cr.
PHYS 252 Dynamics 3 cr.
PHYS 254 Mechanics of Materials 3 cr.
PHYS 279 Introduction to Internships 1 cr.
PHYS 312 Electronics: Linear Integrated Circuits 4 cr.
PHYS 313 Digital Electronics 4 cr.
PHYS 361 Mathematics of Physics and Engineering I 3 cr.
PHYS 362 Mathematics of Physics and Engineering II 3 cr.

Education

Physics Major—Secondary Education
Major Requirements 36 Total Credits

Physics Core Requirements: 26 cr. hrs.
The prerequisite courses for all courses required in the physics major must be passed with a grade of C or better
PHYS 131 Calculus-Based Physics I 5 cr.
PHYS 132 Calculus-Based Physics II 5 cr.
PHYS 204 Intermediate Physics Laboratory 1 cr.
PHYS 264 Modern Physics 4 cr.
PHYS 301 Advanced Physics Laboratory I (writing intensive) 3 cr.
PHYS 302 Advanced Physics Laboratory II (writing intensive) 3 cr.
PHYS 311 Electronics: Circuits and Devices 4 cr.
PHYS 485 Seminar (writing intensive) 1 cr.
Required Course: 3 cr. hrs.
PHYS 331 Curriculum Physics 3 cr.

Directed Electives in Physics 7 cr. hrs.
As listed for Liberal Arts excluding PHYS 279 and PHYS 379 Internship course

Physical Science Major

Broadfield Science Licensure

Dual Degree

Physics/Engineering Dual Degree
Dual Degree students earn a Bachelor of Science in Physics (APIE option) from UW-River Falls and an ABET accredited Bachelor of Science degree in engineering from a partner school. This two-degree program typically takes five years. Students must meet GPA requirements for admission to the engineering partner school.

Required Courses in Physics at UW-River Falls: 14 cr. hrs.
PHYS 131 Calculus-Based Physics I 5 cr.
PHYS 132 Calculus-Based Physics II 5 cr.
PHYS 264 Modern Physics 4 cr.

Required Supporting Courses: 25 cr. hrs.
MATH 166 Calculus I 4 cr.
MATH 167 Calculus II 4 cr.
MATH 256 Linear Algebra 3 cr.
MATH 268 Calculus III or PHYS 361 Mathematics of Physics and Engineering I 3 cr.
MATH 331 Differential Equations 3 cr.
PHYS 211 Scientific Programming 3 cr.
CHEM 121 General Chemistry I 5 cr.
Directed Electives: at least 21 cr. hrs. from the following courses
PHYS 204 Intermediate Lab 1 cr.
PHYS 250 Statics 3 cr.
PHYS 252 Dynamics 3 cr.
PHYS 254 Mechanics of Materials 3 cr.
PHYS 279 Introduction to Internships 1 cr.
PHYS 301 Advanced Physics Laboratory I 3 cr.
PHYS 302 Advanced Physics Laboratory II 3 cr.
PHYS 311 Electronics: Circuits and Devices 4 cr.
PHYS 312 Electronics: Linear Integrated Circuits 4 cr.
PHYS 313 Digital Electronics 4 cr.
PHYS 318 Astrophysics 3 cr.
PHYS 324 Acoustics 3 cr.
PHYS 361 Mathematics of Physics and Engineering I 3 cr.
PHYS 362 Mathematics of Physics and Engineering II 3 cr.
PHYS 379 Internship 3 cr.
PHYS 415 Thermodynamics 3 cr.
PHYS 420 Optics 4 cr.
PHYS 426 Nuclear and Particle Physics 4 cr.
PHYS 427 Condensed Matter Physics 4 cr.
PHYS 441 Classical Mechanics 4 cr.
PHYS 442 Electricity and Magnetism 4 cr.
PHYS 465 Quantum Mechanics 3 cr.
MATH 326 Applied Statistics 3 cr.
CSIS 162 Programming II 3 cr.
CHEM 122 General Chemistry II 5 cr.

Pre-Engineer

Pre-Engineering 68 Total Credits

Required Courses: 55 cr. hrs.
PHYS 131 Calculus-Based Physics I 5 cr.
PHYS 132 Calculus-Based Physics II 5 cr.
PHYS 211 Scientific Programming 3 cr.
CHEM 121 General Chemistry I 5 cr.
CHEM 122 General Chemistry II 5 cr.
MATH 166 Calculus I 4 cr.
MATH 167 Calculus II 4 cr.
MATH 256 Linear Algebra 3 cr.
MATH 268 Calculus III 3 cr.
MATH 331 Differential Equations 3 cr.
ENGL 100 Academic Reading and Writing 3 cr.
ENGL 200 Investigating Ideas: Reading, Writing and the Disciplines 3 cr.
ECON 201 Principles of Microeconomics 3 cr.
ECON 202 Principles of Macroeconomics 3 cr.
CSTA 101 Fundamentals of Oral Communication 3 cr.

Electives depending on final engineering major: 13 cr. hrs.
Select from MATH, PHYS, CSIS, CHEM, GENG, BIOL, GEOL

APIE

Applied Physics for Industry and Engineering

Applied Physics for Industry and Engineering provides more flexibility for students to tailor their program to fit future careers. The new version maintains the physics core, reduces the required
courses to 17 from 26 credit hours, and adds a requirement to complete a certificate option in at least one of four areas. A second semester of Capstone Design Course is added to provide an extensive design experience. The number of required supporting courses increases in lieu of requiring a mathematics minor.

**Applied Physics for Industry and Engineering Option: 45-59 Total Credits**

Prepares highly-competitive graduates for industry, graduate school, or starting a new business. Provides a firm physics foundation with written and oral professional communication proficiency, and focused skills in at least one of four selected certificate areas—Opto-Electronics, Biology, Entrepreneurship, Mechanics.

**Core Requirements 26 cr. hrs.**

**Required Courses 17 cr. hrs.**

- PHYS 211 Scientific Programming or CSIS 162 Programming II 3 cr.
- PHYS 279 Introduction to Internships 1 cr.
- PHYS 361 Mathematics of Physics and Engineering I 3 cr.
- PHYS 362 Mathematics of Physics and Engineering II 3 cr.
- PHYS 485 Capstone Design Course * (Second Semester) 1 cr.

  * Taken twice with a mid-project presentation at the end of the first semester

**Directed Electives ** 6 cr.

  ** These electives broaden experience by exploring an additional area of interest or deepen knowledge in one area. Completion of a second certificate is also an option.

**Choose one of the following certificate options 12-16 cr. hrs.**

**Opto-Electronics (16)**

- PHYS 312 Electronics: Linear Integrated Circuits 4 cr.
- PHYS 313 Digital Electronics 4 cr.
- PHYS 420 Optics 4 cr.
- PHYS 442 Electricity & Magnetism 4 cr.

**Biology (14)**

- BIOL 160 General Biology 4 cr.
- BIOL 240 Cell and Molecular Biology 3 cr.
- BIOL 341 Anatomy and Physiology I 4 cr.
- BIOL 464 Stem Cells & Regenerative Medicine 3 cr.

**Entrepreneurship (15)**

- CSIS 215 Info Systems for Business Management 3 cr.
- MARC 200 Intro to Marketing Communications 3 cr.
- ACCT 231 Accounting 3 cr.
- PSYC 250 Industrial & Organizational Psychology 3 cr.
- COMS 318 Communication & Leadership 3 cr.

**Mechanics (12)**

- PHYS 250 Statics 3 cr.
- PHYS 252 Dynamics 3 cr.
- PHYS 254 Mechanics of Materials 3 cr.
- GENG 345 Machine Design 3 cr.

**Required Supporting Courses: 20 cr. hrs**

- MATH 166 Calculus I 4 cr.
- MATH 167 Calculus II 4 cr.
- MATH 268 Calculus III 3 cr.
- MATH 256 Linear Algebra 3 cr.
- MATH 331 Differential Equations 3 cr.
GENG 121 Engineering Drawing 3 cr.
Physics Minor

Physics Minor Requirements 24 Total Credits

Required Courses 14 cr. hrs.
(PHYS 121 Algebra-Based Physics I 5 cr.
PHYS 122 Algebra-Based Physics II 5 cr.)
or
(PHYS 131 Calculus-Based Physics II 5 cr.
PHYS 132 Calculus-Based Physics II 5 cr.)
PHYS 264 Modern Physics 4 cr.

Directed Electives for Both Minors: 10 cr. hrs.
PHYS 204 Intermediate Physics Laboratory (writing intensive) 1 cr.
PHYS 301 Advanced Physics Laboratory I (writing intensive) 3 cr.
PHYS 302 Advanced Physics Laboratory II (writing intensive) 3 cr.
PHYS 311 Electronics: Circuits and Devices 4 cr.
PHYS 312 Electronics: Linear Integrated Circuits 4 cr.
PHYS 313 Digital Electronics 4 cr.
PHYS 318 Astrophysics 3 cr.
PHYS 324 Acoustics 3 cr.
PHYS 415 Thermodynamics 3 cr.
PHYS 420 Optics 4 cr.
PHYS 426 Nuclear and Particle Physics 4 cr.
PHYS 427 Condensed Matter Physics 4 cr.
PHYS 441 Classical Mechanics 4 cr.
PHYS 442 Electricity and Magnetism 4 cr.
PHYS 465 Quantum Mechanics 3 cr.

Additional Choice for Directed Elective for Secondary Education Minor:
PHYS 331 Curriculum Physics 3 cr.

Required Supporting Courses 11 cr. hrs.
(may be taken under Gen Ed or under Major)
MATH 166 Calculus I 4 cr.
MATH 167 Calculus II 4 cr.
PHYS 361 Mathematics of Physics and Engineering I 3 cr.
or MATH 268 Calculus III

Department of Physics
125 Centennial Science Hall
715-425-3235
www.uwrf.edu/PHYS/

Surujhdeo Seunarine-Chair, Earl Blodgett, Reileen Hardtke, Eileen Korenic, Arriety Lowell, James Madsen, Lowell McCann, Glenn Spiczak, Gina Vento - Program Assistant, and Matthew Vonk
Physics Major
Liberal Arts

Physics Major-Liberal Arts
Physics Core Requirements: 26 cr. hrs.
The prerequisite courses for all courses required in the physics major must be passed with a grade of C or better
PHYS 131 Calculus-Based Physics I 5 cr.
PHYS 132 Calculus-Based Physics II 5 cr.
PHYS 204 Intermediate Physics Laboratory 1 cr.
PHYS 264 Modern Physics 4 cr.
PHYS 301 Advanced Physics Laboratory I (writing intensive) 3 cr.
PHYS 302 Advanced Physics Laboratory II (writing intensive) 3 cr.
PHYS 311 Electronics: Circuits and Devices 4 cr.
PHYS 485 Seminar (writing intensive) 1 cr.

Required Supporting Courses: 20 cr. hrs.
MATH 166 Calculus I 4 cr.
MATH 167 Calculus II 4 cr.
MATH 331 Differential Equations 3 cr.
PHYS 211 Scientific Programming 3 cr.
or CSIS 162 Programming II
PHYS 361 Mathematics of Physics and Engineering I 3 cr.
PHYS 362 Mathematics of Physics and Engineering II 3 cr.

Option I 50 Total Credits
Recommended as preparation for graduate studies in physics or for industrial research.

Physics Major Core 26 cr. hrs.

Directed Electives in Physics 24 cr. hrs.
Choose from courses below:

Option II 36 Total Credits
Recommended for students wanting maximum flexibility for study in other areas

Physics Major Core 26 cr. hrs.

Directed Electives in Physics 10 cr. hrs.
Choose from courses below:

Directed Electives in Physics
PHYS 279 Introduction to Internships 1 cr.
PHYS 312 Electronics: Linear Integrated Circuits
or PHYS 313 Digital Electronics 4 cr.
PHYS 318 Astrophysics 3 cr.
PHYS 324 Acoustics 3 cr.
PHYS 379 Cooperative Education and Internship 3 cr.
PHYS 415 Thermodynamics 3 cr.
PHYS 420 Optics 4 cr.
PHYS 426 Nuclear and Particle Physics 4 cr.
PHYS 427 Condensed Matter Physics 4 cr.
PHYS 441 Classical Mechanics 4 cr.
PHYS 442 Electricity and Magnetism 4 cr.
PHYS 465 Quantum Mechanics 3 cr.

Applied Option 50 Total Credits
Recommended as preparation for a career in an industrial or government laboratory, or for graduate study in Applied Physics, Electronics, Engineering Physics, and Geophysics.

Core Requirements 26 cr. hrs.
Required Courses in Physics 24 cr. hrs.
PHYS 250 Statics 3 cr.
PHYS 252 Dynamics 3 cr.
PHYS 254 Mechanics of Materials 3 cr.
PHYS 279 Introduction to Internships 1 cr.
PHYS 312 Electronics: Linear Integrated Circuits 4 cr.
PHYS 313 Digital Electronics 4 cr.
PHYS 361 Mathematics of Physics and Engineering I 3 cr.
PHYS 362 Mathematics of Physics and Engineering II 3 cr.

Education

Physics Major–Secondary Education
Major Requirements 36 Total Credits

Physics Core Requirements: 26 cr. hrs.
The prerequisite courses for all courses required in the physics major must be passed with a grade of C or better
PHYS 131 Calculus-Based Physics I 5 cr.
PHYS 132 Calculus-Based Physics II 5 cr.
PHYS 204 Intermediate Physics Laboratory 1 cr.
PHYS 264 Modern Physics 4 cr.
PHYS 301 Advanced Physics Laboratory I (writing intensive) 3 cr.
PHYS 302 Advanced Physics Laboratory II (writing intensive) 3 cr.
PHYS 311 Electronics: Circuits and Devices 4 cr.
PHYS 485 Seminar (writing intensive) 1 cr.
Required Course: 3 cr. hrs.
PHYS 331 Curriculum Physics 3 cr.

Directed Electives in Physics 7 cr. hrs.
As listed for Liberal Arts excluding PHYS 279 and PHYS 379 Internship course

Physical Science Major

Broadfield Science Licensure

Dual Degree

Physics/Engineering Dual Degree
Dual Degree students earn a Bachelor of Science in Physics (APIE option) from UW-River Falls and an ABET accredited Bachelor of Science degree in engineering from a partner school. This two-degree program typically takes five years. Students must meet GPA requirements for admission to the engineering partner school.

Required Courses in Physics at UW-River Falls: 14 cr. hrs.
PHYS 131 Calculus-Based Physics I 5 cr.
PHYS 132 Calculus-Based Physics II 5 cr.
PHYS 264 Modern Physics 4 cr.

Required Supporting Courses: 25 cr. hrs.
MATH 166 Calculus I 4 cr.
MATH 167 Calculus II 4 cr.
MATH 256 Linear Algebra 3 cr.
MATH 268 Calculus III or PHYS 361 Mathematics of Physics and Engineering I 3 cr.
MATH 331 Differential Equations 3 cr.
PHYS 211 Scientific Programming 3 cr.
CHEM 121 General Chemistry I 5 cr.
Directed Electives: at least 21 cr. hrs. from the following courses

PHYS 204 Intermediate Lab 1 cr.
PHYS 250 Statics 3 cr.
PHYS 252 Dynamics 3 cr.
PHYS 254 Mechanics of Materials 3 cr.
PHYS 279 Introduction to Internships 1 cr.
PHYS 301 Advanced Physics Laboratory I 3 cr.
PHYS 302 Advanced Physics Laboratory II 3 cr.
PHYS 311 Electronics: Circuits and Devices 4 cr.
PHYS 312 Electronics: Linear Integrated Circuits 4 cr.
PHYS 313 Digital Electronics 4 cr.
PHYS 318 Astrophysics 3 cr.
PHYS 324 Acoustics 3 cr.
PHYS 361 Mathematics of Physics and Engineering I 3 cr.
PHYS 362 Mathematics of Physics and Engineering II 3 cr.
PHYS 379 Internship 3 cr.
PHYS 415 Thermodynamics 3 cr.
PHYS 420 Optics 4 cr.
PHYS 426 Nuclear and Particle Physics 4 cr.
PHYS 427 Condensed Matter Physics 4 cr.
PHYS 441 Classical Mechanics 4 cr.
PHYS 442 Electricity and Magnetism 4 cr.
PHYS 465 Quantum Mechanics 3 cr.
MATH 326 Applied Statistics 3 cr.
CSIS 162 Programming II 3 cr.
CHEM 122 General Chemistry II 5 cr.

Pre-Engineer

Pre-Engineering 68 Total Credits

Required Courses: 55 cr. hrs.
PHYS 131 Calculus-Based Physics I 5 cr.
PHYS 132 Calculus-Based Physics II 5 cr.
PHYS 211 Scientific Programming 3 cr.
CHEM 121 General Chemistry I 5 cr.
CHEM 122 General Chemistry II 5 cr.
MATH 166 Calculus I 4 cr.
MATH 167 Calculus II 4 cr.
MATH 256 Linear Algebra 3 cr.
MATH 268 Calculus III 3 cr.
MATH 331 Differential Equations 3 cr.
ENGL 100 Academic Reading and Writing 3 cr.
ENGL 200 Investigating Ideas: Reading, Writing and the Disciplines 3 cr.
ECON 201 Principles of Microeconomics 3 cr.
ECON 202 Principles of Macroeconomics 3 cr.
CSTA 101 Fundamentals of Oral Communication 3 cr.

Electives depending on final engineering major: 13 cr. hrs.
Select from MATH, PHYS, CSIS, CHEM, GENG, BIOL, GEOL

APIE

Applied Physics for Industry and Engineering

Applied Physics for Industry and Engineering provides more flexibility for students to tailor their program to fit future careers. The new version maintains the physics core, reduces the required
courses to 17 from 26 credit hours, and adds a requirement to complete a certificate option in at least one of four areas. A second semester of Capstone Design Course is added to provide an extensive design experience. The number of required supporting courses increases in lieu of requiring a mathematics minor.

**Applied Physics for Industry and Engineering Option: 45-59 Total Credits**

Prepares highly-competitive graduates for industry, graduate school, or starting a new business. Provides a firm physics foundation with written and oral professional communication proficiency, and focused skills in at least one of four selected certificate areas—Opto-Electronics, Biology, Entrepreneurship, Mechanics.

**Core Requirements 26 cr. hrs.**

**Required Courses 17 cr. hrs.**

PHYS 211 Scientific Programming or CSIS 162 Programming II 3 cr.
PHYS 279 Introduction to Internships 1 cr.
PHYS 361 Mathematics of Physics and Engineering I 3 cr.
PHYS 362 Mathematics of Physics and Engineering II 3 cr.
PHYS 485 Capstone Design Course * (Second Semester) 1 cr.

**Directed Electives ** 6 cr.

* Taken twice with a mid-project presentation at the end of the first semester
** These electives broaden experience by exploring an additional area of interest or deepen knowledge in one area. Completion of a second certificate is also an option.

Choose one of the following certificate options 12-16 cr. hrs.

**Opto-Electronics (16)**

PHYS 312 Electronics: Linear Integrated Circuits 4 cr.
PHYS 313 Digital Electronics 4 cr.
PHYS 420 Optics 4 cr.
PHYS 442 Electricity & Magnetism 4 cr.

**Biology (14)**

BIOL 160 General Biology 4 cr.
BIOL 240 Cell and Molecular Biology 3 cr.
BIOL 341 Anatomy and Physiology I 4 cr.
BIOL 464 Stem Cells & Regenerative Medicine 3 cr.

**Entrepreneurship (15)**

CSIS 215 Info Systems for Business Management 3 cr.
MARC 200 Intro to Marketing Communications 3 cr.
ACCT 231 Accounting 3 cr.
PSYC 250 Industrial & Organizational Psychology 3 cr.
COMS 318 Communication & Leadership 3 cr.

**Mechanics (12)**

PHYS 250 Statics 3 cr.
PHYS 252 Dynamics 3 cr.
PHYS 254 Mechanics of Materials 3 cr.
GENG 345 Machine Design 3 cr.

**Required Supporting Courses: 20 cr. hrs**

MATH 166 Calculus I 4 cr.
MATH 167 Calculus II 4 cr.
MATH 268 Calculus III 3 cr.
MATH 256 Linear Algebra 3 cr.
MATH 331 Differential Equations 3 cr.
GENG 121 Engineering Drawing 3 cr.
Physics Major - Liberal Arts

Physics Core Requirements: 26 cr. hrs.
The prerequisite courses for all courses required in the physics major must be passed with a grade of C or better
PHYS 131 Calculus-Based Physics I 5 cr.
PHYS 132 Calculus-Based Physics II 5 cr.
PHYS 204 Intermediate Physics Laboratory 1 cr.
PHYS 264 Modern Physics 4 cr.
PHYS 301 Advanced Physics Laboratory I (writing intensive) 3 cr.
PHYS 302 Advanced Physics Laboratory II (writing intensive) 3 cr.
PHYS 311 Electronics: Circuits and Devices 4 cr.
PHYS 485 Seminar (writing intensive) 1 cr.

Required Supporting Courses: 20 cr. hrs.
MATH 166 Calculus I 4 cr.
MATH 167 Calculus II 4 cr.
MATH 331 Differential Equations 3 cr.
PHYS 211 Scientific Programming 3 cr.
or CSIS 162 Programming II
PHYS 361 Mathematics of Physics and Engineering I 3 cr.
PHYS 362 Mathematics of Physics and Engineering II 3 cr.

Option I 50 Total Credits
Recommended as preparation for graduate studies in physics or for industrial research.

Physics Major Core 26 cr. hrs.
Directed Electives in Physics 24 cr. hrs.
Choose from courses below:

Option II 36 Total Credits
Recommended for students wanting maximum flexibility for study in other areas

Physics Major Core 26 cr. hrs.
Directed Electives in Physics 10 cr. hrs.
Choose from courses below:

Directed Electives in Physics
PHYS 279 Introduction to Internships 1 cr.
PHYS 312 Electronics: Linear Integrated Circuits
or PHYS 313 Digital Electronics 4 cr.
PHYS 318 Astrophysics 3 cr.
PHYS 324 Acoustics 3 cr.
PHYS 379 Cooperative Education and Internship 3 cr.
PHYS 415 Thermodynamics 3 cr.
PHYS 420 Optics 4 cr.
PHYS 426 Nuclear and Particle Physics 4 cr.
PHYS 427 Condensed Matter Physics 4 cr.
PHYS 441 Classical Mechanics 4 cr.
PHYS 442 Electricity and Magnetism 4 cr.
PHYS 465 Quantum Mechanics 3 cr.

Applied Option 50 Total Credits
Recommended as preparation for a career in an industrial or government laboratory, or for graduate study in Applied Physics, Electronics, Engineering Physics, and Geophysics.

Core Requirements 26 cr. hrs.
Required Courses in Physics 24 cr. hrs.
PHYS 250 Statics 3 cr.
PHYS 252 Dynamics 3 cr.
PHYS 254 Mechanics of Materials 3 cr.
PHYS 279 Introduction to Internships 1 cr.
PHYS 312 Electronics: Linear Integrated Circuits 4 cr.
PHYS 313 Digital Electronics 4 cr.
PHYS 361 Mathematics of Physics and Engineering I 3 cr.
PHYS 362 Mathematics of Physics and Engineering II 3 cr.

Education

Physics Major–Secondary Education
Major Requirements 36 Total Credits

Physics Core Requirements: 26 cr. hrs.
The prerequisite courses for all courses required in the physics major must be passed with a grade
of C or better
PHYS 131 Calculus-Based Physics I 5 cr.
PHYS 132 Calculus-Based Physics II 5 cr.
PHYS 204 Intermediate Physics Laboratory 1 cr.
PHYS 264 Modern Physics 4 cr.
PHYS 301 Advanced Physics Laboratory I (writing intensive) 3 cr.
PHYS 302 Advanced Physics Laboratory II (writing intensive) 3 cr.
PHYS 311 Electronics: Circuits and Devices 4 cr.
PHYS 485 Seminar (writing intensive) 1 cr.
Required Course: 3 cr. hrs.
PHYS 331 Curriculum Physics 3 cr.

Directed Electives in Physics 7 cr. hrs.
As listed for Liberal Arts excluding PHYS 279 and PHYS 379 Internship course

Physical Science Major

Broadfield Science Licensure

Dual Degree

Physics/Engineering Dual Degree
Dual Degree students earn a Bachelor of Science in Physics (APIE option) from UW-River Falls
and an ABET accredited Bachelor of Science degree in engineering from a partner school. This
two-degree program typically takes five years. Students must meet GPA requirements for
admission to the engineering partner school.

Required Courses in Physics at UW-River Falls: 14 cr. hrs.
PHYS 131 Calculus-Based Physics I 5 cr.
PHYS 132 Calculus-Based Physics II 5 cr.
PHYS 264 Modern Physics 4 cr.

Required Supporting Courses: 25 cr. hrs.
MATH 166 Calculus I 4 cr.
MATH 167 Calculus II 4 cr.
MATH 256 Linear Algebra 3 cr.
MATH 268 Calculus III or PHYS 361 Mathematics of Physics and Engineering I 3 cr.
MATH 331 Differential Equations 3 cr.
PHYS 211 Scientific Programming 3 cr.
CHEM 121 General Chemistry I 5 cr.
Directed Electives: at least 21 cr. hrs. from the following courses
PHYS 204 Intermediate Lab 1 cr.
PHYS 250 Statics 3 cr.
PHYS 252 Dynamics 3 cr.
PHYS 254 Mechanics of Materials 3 cr.
PHYS 279 Introduction to Internships 1 cr.
PHYS 301 Advanced Physics Laboratory I 3 cr.
PHYS 302 Advanced Physics Laboratory II 3 cr.
PHYS 311 Electronics: Circuits and Devices 4 cr.
PHYS 312 Electronics: Linear Integrated Circuits 4 cr.
PHYS 313 Digital Electronics 4 cr.
PHYS 318 Astrophysics 3 cr.
PHYS 324 Acoustics 3 cr.
PHYS 361 Mathematics of Physics and Engineering I 3 cr.
PHYS 362 Mathematics of Physics and Engineering II 3 cr.
PHYS 379 Internship 3 cr.
PHYS 415 Thermodynamics 3 cr.
PHYS 420 Optics 4 cr.
PHYS 426 Nuclear and Particle Physics 4 cr.
PHYS 427 Condensed Matter Physics 4 cr.
PHYS 441 Classical Mechanics 4 cr.
PHYS 442 Electricity and Magnetism 4 cr.
PHYS 465 Quantum Mechanics 3 cr.
MATH 326 Applied Statistics 3 cr.
CSIS 162 Programming II 3 cr.
CHEM 122 General Chemistry II 5 cr.

Pre-Engineer

Pre-Engineering 68 Total Credits
Required Courses: 55 cr. hrs.
PHYS 131 Calculus-Based Physics I 5 cr.
PHYS 132 Calculus-Based Physics II 5 cr.
PHYS 211 Scientific Programming 3 cr.
CHEM 121 General Chemistry I 5 cr.
CHEM 122 General Chemistry II 5 cr.
MATH 166 Calculus I 4 cr.
MATH 167 Calculus II 4 cr.
MATH 256 Linear Algebra 3 cr.
MATH 268 Calculus III 3 cr.
MATH 331 Differential Equations 3 cr.
ENGL 100 Academic Reading and Writing 3 cr.
ENGL 200 Investigating Ideas: Reading, Writing and the Disciplines 3 cr.
ECON 201 Principles of Microeconomics 3 cr.
ECON 202 Principles of Macroeconomics 3 cr.
CSTA 101 Fundamentals of Oral Communication 3 cr.
Electives depending on final engineering major: 13 cr. hrs.
Select from MATH, PHYS, CSIS, CHEM, GENG, BIOL, GEOL

APIE
Applied Physics for Industry and Engineering

Applied Physics for Industry and Engineering provides more flexibility for students to tailor their program to fit future careers. The new version maintains the physics core, reduces the required
courses to 17 from 26 credit hours, and adds a requirement to complete a certificate option in at least one of four areas. A second semester of Capstone Design Course is added to provide an extensive design experience. The number of required supporting courses increases in lieu of requiring a mathematics minor.

Applied Physics for Industry and Engineering Option: 45-59 Total Credits
Prepares highly-competitive graduates for industry, graduate school, or starting a new business. Provides a firm physics foundation with written and oral professional communication proficiency, and focused skills in at least one of four selected certificate areas—Opto-Electronics, Biology, Entrepreneurship, Mechanics.

Core Requirements 26 cr. hrs.
Required Courses 17 cr. hrs.

- PHYS 211 Scientific Programming or CSIS 162 Programming II 3 cr.
- PHYS 279 Introduction to Internships 1 cr.
- PHYS 361 Mathematics of Physics and Engineering I 3 cr.
- PHYS 362 Mathematics of Physics and Engineering II 3 cr.
- PHYS 485 Capstone Design Course * (Second Semester) 1 cr.

Directed Electives ** 6 cr.

* Taken twice with a mid-project presentation at the end of the first semester
** These electives broaden experience by exploring an additional area of interest or deepen knowledge in one area. Completion of a second certificate is also an option.

Choose one of the following certificate options 12-16 cr. hrs.

Opto-Electronics (16)
- PHYS 312 Electronics: Linear Integrated Circuits 4 cr.
- PHYS 313 Digital Electronics 4 cr.
- PHYS 420 Optics 4 cr.
- PHYS 442 Electricity & Magnetism 4 cr.

Biology (14)
- BIOL 160 General Biology 4 cr.
- BIOL 240 Cell and Molecular Biology 3 cr.
- BIOL 341 Anatomy and Physiology I 4 cr.
- BIOL 464 Stem Cells & Regenerative Medicine 3 cr.

Entrepreneurship (15)
- CSIS 215 Info Systems for Business Management 3 cr.
- MARC 200 Intro to Marketing Communications 3 cr.
- ACCT 231 Accounting 3 cr.
- PSYC 250 Industrial & Organizational Psychology 3 cr.
- COMS 318 Communication & Leadership 3 cr.

Mechanics (12)
- PHYS 250 Statics 3 cr.
- PHYS 252 Dynamics 3 cr.
- PHYS 254 Mechanics of Materials 3 cr.
- GENG 345 Machine Design 3 cr.

Required Supporting Courses: 20 cr. hrs

- MATH 166 Calculus I 4 cr.
- MATH 167 Calculus II 4 cr.
- MATH 268 Calculus III 3 cr.
- MATH 256 Linear Algebra 3 cr.
- MATH 331 Differential Equations 3 cr.
GENG 121 Engineering Drawing 3 cr.
Political Science Major

Political Science Major: 36 Total Credits

Required Courses: 21 cr. hrs.

POLS 114 American Government and Politics 3 cr.
POLS 220 Introduction to Public Opinion and Political Behavior 3 cr.
POLS 230 Introduction to Political Philosophy and Ideology 3 cr.
POLS 245 Introduction to Comparative Politics 3 cr.
POLS 260 Introduction to International Relations 3 cr.
POLS 300 Research Methods 3 cr.
POLS 480 Seminar in Political Science 3 cr.

Electives: 15 cr. hrs.

Any POLS course, excluding courses taken as required supporting courses.
Note: Students may apply a maximum of 6 POLS internship credits toward the elective section of the major. Students majoring in Political Science must take a minimum of 12 out of the total 36 credits for the major in courses numbered at the 300 level or above, excluding credits taken for political science internships.

Required Supporting Courses:

Political Science Majors must take ONE of the following courses:

PSYC 201 Behavioral Statistics
SOCI 250 Introduction to Social Statistics
ECON 226 Introduction to Statistics
MATH 216 Elementary Statistical Concepts
MATH 226 Fundamentals of Statistics

Political Science Majors must take the following course:

POLS 110 Controversies in Politics

Department of Political Science
356 Kleinpell Fine Arts
715-425-3318
politicalscience@uwrf.edu
www.uwrf.edu/POLS

The political science department's requirements for a major or minor are designed to provide students with the intellectual skills and substantive knowledge that are necessary to be able to analyze and interpret political events and governmental processes.

Information for students interested in pre-law is available.
Political Science Minor

Political Science Minor 24 Total Credits

Required Courses: 15 cr. hrs.
- POLS 114 American National, State and Local Government 3
- POLS 220 Introduction to Public Opinion and Political Behavior 3
- POLS 230 Contemporary Political Ideologies 3
- POLS 245 Introduction to Comparative Politics 3
- POLS 260 Introduction to International Relations 3

Electives: 9 cr. hrs.

Any POLS course, excluding courses taken as required supporting courses.

Restrictions: Students may apply a maximum of 3 political science internship credits toward the elective section of the minor. Students completing a minor in Political Science must take a minimum of 6 out of the total 36 credits for the major in courses numbered at the 300 level or above, excluding credits taken for political science internships.

Required Supporting Course

Students must take the following course:
- POLS 110 Controversies in Politics 3
Professional and Organizational Communication Minor

24 Total Credits

Required Courses: 15 Credits

COMS 207 Listening 3 cr.
COMS 208 Problem Solving in Small Group Communication 3 cr.
COMS 216 Communication in the Interview 3 cr.
COMS 316 Organizational Communication 3 cr.
COMS 379 Internship 3-4 cr.
and/or
COMS 499 Independent Study 1-3 cr.

Directed Electives: 9 Credits

COMS 106 Interpersonal Communication 3 cr.
COMS 111 Argumentation and Decision Making 3 cr.
COMS 306 Nonverbal Communication 3 cr.
COMS 311 Persuasion 3 cr.
COMS 313 Intercultural Communication 3 cr.
COMS 318 Communication and Leadership 3 cr.
COMS 360 Corporate Electronic Communication 3 cr.
COMS 416 Communication Training and Development in Organizations 3 cr.
COMS 440 Gender Communication 3 cr.

A research/writing course experience is required in the major or another field; COMS 284 Sophomore Seminar or another course approved by the department chair, will satisfy this requirement. A senior portfolio experience is required in the major or another field; COMS 484, Senior Portfolio Seminar or another course approved by the department chair, will satisfy this requirement.
Professional Writing Minor

Required Courses 15 credits
*ENGL 271 Proposal Writing
ENGL 374 Cyberliteracy and Writing on the Web
ENGL 266 Business Writing
ENGL 270 Visual Rhetoric: Document Design and Graphics
ENGL 367 Technical Writing
ENGL 387 Technical and Professional Editing

Directed Electives: select three 8-9 credits

COMS 316 Organizational Communication
ENGL 220 Structure of English
ENGL 372 Practicum: Peer Tutoring and Writing Instruction
ENGL 379 Internship
ENGL 251 Advanced Composition
(ENGL 266 Business Writing or ENGL 367 Technical Writing)
ENGL 362 Intro to Rhetorical Studies
ENGL 370 Nonfiction Writing
ENGL 494 Senior Seminar in Professional Writing.
ENGL 389 Topics course in Rhetoric (Environmental Rhetoric, Contemporary Rhetoric).
JOUR 269 Multimedia Storytelling
JOUR 320 Journalism and Public Opinion
MARC 370 Public Relations Principles
MARC 360 Advertising

Department of English
245 Kleinpell Fine Arts
715-425-3537
www.uwrf.edu/ENGL/

Marshall Toman (Chair), Greta Gaard, Annette Klemp, Steven Luebke, Mialisa Moline, Michelle Parkinson, Vladimir Pavlov, Joseph Rein, Catherine Nasara, Elizabeth Schneider-Rebozo, Douglas Margolis
Psychology Major

Psychology Major: 45 Total Credits

Required Courses: 18 cr. hrs.
- PSYC 101 General Psychology 3 cr.
- PSYC 110 Careers in Psychology 3 cr.
- PSYC 201 Behavioral Statistics 3 cr.
- PSYC 216 Research Methods 3 cr.
- PSYC 315 Psychological Measurement and Evaluation 3 cr.
- PSYC 450 Senior Seminar in Psychology 3 cr.

Psychology

Psychological Foundations - 18 cr. hrs.

Experimental

Choose 3 from the following:
- PSYC 305 Learning and Motivation 3 cr.
- PSYC 310 Memory and Thinking 3 cr.
- PSYC 340 Animal Behavior 3 cr.
- PSYC 350 Sensation and Perception 3 cr.
- PSYC 355 Physiological Psychology 3 cr.

Social

Choose 3 from the following:
- PSYC 320 Psychology of Personality 3 cr.
- PSYC 325 Abnormal Psychology 3 cr.
- PSYC 335 Developmental Psychology: Childhood and Adolescence 3 cr.
- PSYC 336 Developmental Psychology: Adulthood and Aging 3 cr.
- PSYC 360 Social Psychology 3 cr.

Elective Psychology Courses: 9 cr. hrs.

In addition to completing the course area requirements, the student must take additional psychology courses to achieve the required 45 credits for the major. These courses may be selected from any of the areas listed including courses below (PSYC 220 and PSYC 245 may not count towards elective credits in the major).

Psychology Option Electives
- PSYC 225 Psychology of Gender 3 cr.
- PSYC 250 Industrial and Organizational Psychology 3 cr.
- PSYC 260 Behavior Modification 3 cr.
- PSYC 269 Health Psychology 3 cr.
- PSYC 270 Sport Psychology 3 cr.
- PSYC 280 Drugs and the Nervous System 3 cr.
- PSYC 289 Special Topics in Psychology 3 cr.
- PSYC 316 Advanced Research Methods 3 cr.
- PSYC 361 Psychological Foundations of Employee Selection 3 cr.
- PSYC 362 Psychological Foundations of Employee Training 3 cr.
- PSYC 375 The Psychology of Sexuality 3 cr.
- PSYC 378 Psychology Semester Abroad 3 cr.
- PSYC 379 Internship in Psychology 1 to 3 cr.
- PSYC 385 The Psychology of Prejudice and Racism (d) 3 cr.
- PSYC 425 Introduction to Clinical Psychology 3 cr.
- PSYC 490 Independent Study in Psychology 1 to 3 cr.

Health

Health Option Requirements - 15 cr. hrs.
- PSYC 269 Health Psychology 3 cr.
- PSYC 270 Sport Psychology 3 cr.
PSYC 325 Abnormal Psychology 3 cr.
PSYC 355 Physiological Psychology 3 cr.
PSYC 360 Social Psychology 3 cr.

**Health Option Electives - 12 cr. hrs.**
PSYC 225 Psychology of Gender 3 cr.
PSYC 250 Industrial and Organizational Psychology 3 cr.
PSYC 260 Behavior Modification 3 cr.
PSYC 280 Drugs and the Nervous System 3 cr.
PSYC 305 Learning and Motivation 3 cr.
PSYC 310 Memory and Thinking 3 cr.
PSYC 316 Advanced Research Methods 3 cr.
PSYC 320 Psychology of Personality 3 cr.
PSYC 335 Developmental Psychology: Childhood and Adolescence 3 cr.
PSYC 336 Developmental Psychology: Adulthood and Aging 3 cr.
PSYC 375 The Psychology of Sexuality 3 cr.
PSYC 378 Psychology Semester Abroad 3 cr.
PSYC 379 Internship in Psychology 1 to 3 cr.
PSYC 385 The Psychology of Prejudice and Racism (d) 3 cr.
PSYC 425 Introduction to Clinical Psychology 3 cr.
PSYC 490 Independent Study in Psychology 1 to 3 cr.

**I/O**

**Industrial and Organizational Psychology Option Requirements - 15 cr. hrs.**
PSYC 250 Industrial and Organizational Psychology 3 cr.
PSYC 305 Learning and Motivation 3 cr. **OR**
PSYC 310 Memory and Thinking 3 cr.
PSYC 360 Social Psychology 3 cr.
PSYC 361 Psychological Foundations of Employee Selection 3 cr. **OR**
PSYC 362 Psychological Foundations of Employee Training 3 cr.

**Industrial and Organization Psychology Option Electives - 12 cr. hrs.**
PSYC 225 Psychology of Gender 3 cr.
PSYC 250 Industrial and Organizational Psychology 3 cr.
PSYC 260 Behavior Modification 3 cr.
PSYC 269 Health Psychology 3 cr.
PSYC 280 Drugs and the Nervous System 3 cr.
PSYC 305 Learning and Motivation 3 cr.
PSYC 310 Memory and Thinking 3 cr.
PSYC 316 Advanced Research Methods 3 cr.
PSYC 350 Sensation and Perception 3 cr.
PSYC 361 Psychological Foundations of Employee Selection 3 cr.
PSYC 362 Psychological Foundations of Employee Training 3 cr.
PSYC 379 Internship in Psychology 1 to 3 cr.
PSYC 385 The Psychology of Prejudice and Racism (d) 3 cr.
PSYC 490 Independent Study in Psychology 1 to 3 cr.

**Mental Health**

**Mental Health Option Requirements - 15 cr. hrs**
PSYC 260 Behavior Modification 3 cr.
PSYC 269 Health Psychology 3 cr.
PSYC 320 Psychology of Personality 3 cr.
PSYC 325 Abnormal Psychology 3 cr.
PSYC 425 Introduction to Clinical Psychology 3 cr.

**Mental Health Option Electives - 12 cr. hrs.**
PSYC 280 Drugs and the Nervous System 3 cr.
PSYC 305 Learning and Motivation 3 cr.
PSYC 310 Memory and Thinking 3 cr.
PSYC 316 Advanced Research Methods 3 cr.
PSYC 335 Developmental Psychology: Childhood and Adolescence 3 cr. OR
PSYC 336 Developmental Psychology: Adulthood and Aging 3 cr.
PSYC 360 Social Psychology
PSYC 379 Internship in Psychology 1 to 3 cr.
PSYC 385 The Psychology of Prejudice and Racism (d) 3 cr.
PSYC 490 Independent Study in Psychology 1 to 3 cr.

Social Justice
Social Justice Option Requirements - 15 cr. hrs.
PSYC 225 Psychology of Gender 3 cr.
PSYC 280 Drugs and the Nervous System 3 cr.
PSYC 325 Abnormal Psychology 3 cr.
PSYC 360 Social Psychology 3 cr.
PSYC 385 The Psychology of Prejudice and Racism (d) 3 cr.

Social Justice Option Electives - 12 cr. hrs
PSYC 269 Health Psychology 3 cr.
PSYC 316 Advanced Research Methods 3 cr.
PSYC 320 Psychology of Personality 3 cr.
PSYC 335 Developmental Psychology: Childhood and Adolescence 3 cr. OR
PSYC 336 Developmental Psychology: Adulthood and Aging 3 cr.
PSYC 355 Physiological Psychology 3 cr.
PSYC 375 The Psychology of Human Sexuality 3 cr.
PSYC 379 Internship in Psychology 1 to 3 cr.
PSYC 490 Independent Study in Psychology 1 to 3 cr.
Psychology Minor

Psychology Minor: 24 Total Credits

Required Courses: 9 cr. hrs.
- PSYC 101 General Psychology 3 cr.
  (credits can be counted in general education)
- PSYC 201 Behavioral Statistics 3 cr.
  (credits can be counted in general education)
- PSYC 216 Research Methods (writing intensive) 3 cr.

Electives: 15 cr. hrs.

Additional courses in Psychology

Sociology majors with a minor in psychology who have taken SOCI 300 Research Methods may substitute another psychology course for the PSYC 216 requirement.
Secondary Education Degree

University and DPI General Education Requirements

Academic Specialization: 54-58 Total Credits

Option A - Departmental major and one minor
Option B - Two departmental majors

Approved Secondary Education Majors and Minors

Early Adolescence - Adolescence Programs, teaching ages 11-21 years.

Comprehensive Majors:
- Broadfield Science Licensure: Biology, Chemistry, Physics
- Physical Science
- Broad Field Social Studies
- Broad Area English

Majors:
- Chemistry
- Communicative Disorders - does not lead to licensing at the undergraduate level
- Geology-Earth Science Certification
- English
- Mathematics
- Physics

Minors:
- Anthropology-1
- Biology
- Chemistry
- Coaching
- Dance Education
- Earth Science-2
- Economics-1
- English
- Geography-1
- German - with an EA-A major
- Health Education
- History-1
- Mathematics
- Physics
- Political Science-1
- Spanish - with an EA-A major
- Sociology-1
- Teaching English to Speakers of Other Languages - with an EA-A major

Early Childhood - Adolescence Programs, teaching a variety of ages in school settings

Comprehensive Majors
- Art
- Music (choral or Instrumental options)
- Health and Human Performance
- Agricultural Education

Majors
- Teaching English to Speakers of Other Languages (TESOL)
- Modern Language (French, German, and Spanish options)
- Health Education

Department of Teacher Education

257 Walker Wyman Education
www.uwrf.edu/TED/

Florence Monsour-Chair, Joel Donna, Amy Frederick, Molly Gerrish, Beth Janey, Rachelle Haroldson, Angela Kaiser, Michael Miller, Hilary Pollack, Geoff Scheurman, Manu Sharma, Satomi Shinde, Hiawatha Smith, Mary Wright

The degree curricula designed to prepare teachers for the secondary school, in either Early Adolescence - Adolescence (formerly grades 6-12) or Early Childhood - Adolescence (formerly K-12). The program consists of a minimum of 120 semester hours that give the student a broad general education, specialized preparation in one or more academic fields and professional preparation needed for effective teaching. Specific course requirements are listed for each academic department preceding the departmental course descriptions.

General Education Requirements

As listed for CEPS.

Coursework included in the professional sequence, major, minor or concentration may not be included in the general education component.
Minors

Teaching English to Speakers of Other Languages (TESOL) only with an EC-A Modern Language major

German - only with an EC-A Modern Language or TESOL major.

Spanish - only with an EC-A Modern Language or TESOL major.

Coaching - only with a Physical Education Major

Adapted Physical Education - requires a major in Health and Human Performance (K-12) education.

1-Cooperatives. Wisconsin law requires that teachers of Economics, social studies and agriculture complete adequate instruction in consumers' cooperatives and cooperative marketing. Students in agriculture can satisfy this requirement by successful completion of AGEC 240 or 355. Students in Economics and social sciences can satisfy this requirement by successful completion of TED 433 or AGEC 240 or 355.

2-If you are interested in teaching economics, geography, history, political science, psychology or sociology, please see Social Science, Broad Field.
Social Science Minor

Social Science Minor 30 cr. hrs.
For Elementary Education Majors only

Standard A: History (9 credits)
BFSS 200 Introduction to Social Science for Teachers
HIST 102 History of the Modern World 1500
Choose one 200+ history elective course

Standard B: Geography (6 credits)
GEOG 110 Physical Geography (also applied in goal 3 S)
GEOG 120 Human Geography (also applied on goal 2 SB)

Standard C: Behavioral Science (9 credits)
ECON 100 Modern Economics
SOCI 100 Introduction to Sociology
ANTH 100 Cultural Anthropology

Standard D: Political Science and Citizenship (3 credits)
Choose any Political Science course

Standard E: Psychology (3 credits)
Choose any Psychology course

Social Science Interdisciplinary
304 Fine Arts
715-425-4170
Ryan Fischer—Coordinator

The minor in Social Science, available for majors in elementary and middle school (6-9) education, is a program of study comprised of several social science disciplines: economics, geography, history, political science and sociology.
Social Work Major

Social Work Major Requirements 121 Total Credits

Required Courses: 54 cr. hrs.
SOWK 150 Introduction to Social Work Services 3 cr.
SOWK 205 Introduction to Social Work and Social Welfare 3 cr.
SOWK 215 Human Behavior and Social Environment 3 cr.
SOWK 250 Use, Abuse, and Addiction 3 cr.
SOWK 300 Research Methods 3 cr.
SOWK 324 Theory and Practice of Social Work I 3 cr.
SOWK 325 Theory and Practice of Social Work II 3 cr.
SOWK 350 Social Welfare Policy 3 cr.
SOWK 389 Special Topics in Social Work (2) 6 cr.
SOWK 424 Advanced Interviewing and Crisis Intervention 3 cr.
SOWK 426 Theory and Practice Of Social Work III 3 cr.
SOWK 472 Social Work Field Instruction (2) 12 cr.
SOWK 480 Senior Integrative Seminar 3 cr.
SOWK 481 Integrating Practice and Research 3 cr.

Required Supporting Courses: 6 cr. hrs.
SOCI 100 Introduction to Sociology 3 cr.
SOWK 260 Practice with Diverse Populations 3 cr.

Directed Electives: 3 cr. hrs.
SOCI 218 Deviant Behavior 3 cr.
SOCI 221 Global Perspectives on Women 3 cr.
SOCI 323 Sociology of the Family 3 cr.
SOCI 338 Global Perspectives on Health and Disease 3 cr.
SOCI 341 Sociology of Later Life
SOCI 435 Social and Cultural Change 3 cr.
SOCI 445 Power and Inequality 3 cr.
CJ 202 Introduction to Criminal Justice 3 cr.
CJ 320 Juvenile Delinquency 3 cr.
CJ 322 Criminology 3 cr.
CJ 430 Trends and Issues in Incarceration 3 cr.
COMS 206 Family Communication 3 cr.
COMS 207 Listening Skills 3 cr.
COMS 208 Problem Solving in Small Group Communication 3 cr.
COMS 318 Communication and Leadership 3 cr.
PSYC 236 Developmental Psychology: childhood and Adolescence 3 cr.
SPED 330 The Exceptional Child 3 cr.
PSYC 336 Developmental Psychology: Adulthood and Aging 3 cr.
PSYC 365 Individual and Group Processes 3 cr.
SPED 421 Developmental Disabilities 3 cr.
POLS 225 Introduction to Public Administration 3 cr.
POLS 253 State and Local Politics 3 cr.
POLS 256 Public Policymaking 3 cr.
HIST 310 History of American Political Thought 3 cr.
WGST 200 Introduction to Women's Studies 3 cr.
INTS 200 Introduction to International Studies 3 cr.

Social Work
203 Walker Wyman Education
715-425-3655
www.uwrf.edu/SOWK/

Ogden Rogers–Program Director; Jennifer Gervais, Director of Field Instruction

General Education Requirements
As listed with the following exceptions:
Social and Behavioral Science: 8-9 cr. hrs.
ECON 100, POLS 114, PSYC 101 required as supporting courses.

Mathematics: 3 cr. hrs.
PSYC 201 or MATH 226 required as supporting course.

Liberal Arts, follows BS Liberal Arts Degree:
10-12 cr. hrs.
BIOL 253 required as a supporting course.
### Sociology Major

**Sociology Major—39 Total Credits**

**Core Requirements 15 cr. hrs.**

- SOCI 100 Introduction to Sociology
  (supporting course - counts 3 cr. in Gen. Ed.)
- SOCI 200 Sociological Inquiry 3 cr.
- SOCI 201 Theories of Sociology 3 cr.
- SOCI 250 Social Statistics 3 cr.
- SOCI 300 Research Methods 3 cr.
- SOCI 480 Senior Seminar 3 cr.

**Content Areas**

*Take a minimum of one course out of each of the following content areas.*

<table>
<thead>
<tr>
<th>Content Area</th>
<th>Courses</th>
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<tbody>
<tr>
<td><strong>Culture and Community</strong></td>
<td>ANTH 100 Cultural Anthropology 3 cr.</td>
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<td>SOCI 210 Social Problems 3 cr.</td>
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<td>SOCI 218 Deviant Behavior 3 cr.</td>
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<td>SOCI 310 / FILM 310 Sociology Through Film 3 cr.</td>
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<td>SOCI 314 / ANTH 314 Faces of Culture 3 cr.</td>
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<td>SOCI 316 / ANTH 316 Social and Cultural Change 3 cr.</td>
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<td><strong>Diversity and Inequality</strong></td>
<td>SOCI 220 Sociology of Diversity: Race, Class, and Gender 3 cr.</td>
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<td>SOCI 321 Power and Inequality 3 cr.</td>
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<td>SOCI 322 / ANTH 322 Race and Ethnicity 3 cr.</td>
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<td>SOCI 326 / WGST 326 Sociology of Gender Roles 3 cr.</td>
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<td>SOCI 328 Perspectives on Race Relations 3 cr.</td>
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<td><strong>Globalization</strong></td>
<td>SOCI 231 Sociology of Globalization 3 cr.</td>
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<td>SOCI 331 / ANTH 331 / WGST 331 Global Perspectives on Women 3 cr.</td>
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<td>SOCI 332 Environmental Sociology 3 cr.</td>
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<td>SOCI 333 / ANTH 333 Human and Cultural Origins 3 cr.</td>
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<td>SOCI 338 / ANTH 338 Global Perspectives on Health and Disease 3cr.</td>
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<td>SOCI 395 / ANTH 395 Belize Study Tour 3 cr.</td>
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<tr>
<td><strong>Life Course</strong></td>
<td>SOCI 241 Social Psychology 3 cr.</td>
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<td>SOCI 341 Sociology of Later Life 3 cr.</td>
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<td>SOCI 342 / WGST 342 Sociology of the Family 3 cr.</td>
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<td></td>
<td>SOCI 343 Sociology of Sport and Leisure 3 cr.</td>
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<tr>
<td><strong>Seminars</strong></td>
<td>SOCI 411 Seminar in Culture and Community 3 cr.</td>
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<td>SOCI 421 Seminar in Diversity and Inequality 3 cr.</td>
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<td>SOCI 431 Seminar in Globalization 3 cr.</td>
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<td>SOCI 441 Seminar in Life Course 3 cr.</td>
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</table>

**Other Electives**

*Choose 9 credits from courses not taken in Content Areas above and/or the following. All must be be numbered 300 or higher.*

- SOCI 378 Semester Abroad Research 3-8 cr.
- SOCI 379 Internship in Sociology 6-12 cr.
- SOCI 389 Special Topics in Sociology 3 cr.
SOCI 490 Readings 1-2 cr.
SOCI 499 Independent Study 1-2 cr.
Sociology Minor

Sociology Minor - Liberal Arts or Education - 24 Total Credits

Required Courses 6 cr. hrs.

- SOCI 100 Introduction to Sociology
  (supporting course-counts 3 cr. in Gen. Ed.)
- SOCI 200 Sociological Inquiry 3 cr.
- SOCI 201 Theories of Sociology 3 cr.

General Electives in Sociology/Anthropology 18 cr. hrs.
(at least 9 credits must be at 300/400 level)
Soil Science Minor

Minor Requirements 21 Total Credits

Required Courses: 3 cr.
SOIL 120 Introduction to Soil Science 3 cr.

Select 18 credits from:
SOIL 250 Soil Profile Descriptions 2 cr.
SOIL 270 or SOIL 370 Internship 2-4 cr.
SOIL 311 Soil Fertility 4 cr.
SOIL 325 Hydric Soils and Wetland Environments 3 cr.
SOIL 350 Soil Development 2 cr.
SOIL 440 Soil and Water Conservation 4 cr.
SOIL 460 Soil Physics 3 cr.
GEOL 102 Introductory Geology Lab 1 cr.
GEOL 327 Geomorph and Glacial Geo (writing intensive) 4 cr.

Department of Plant and Earth Science
324 Agricultural Science
715-425-3345
www.uwrf.edu/PES/

Holly Dolliver-Chair, Olutoyosi Ajayi, Jill Coleman Wasik, Heather Davis, Christopher Holtkamp, Todd Johnson, Kevyn Juneau, Veronica Justen, Kerry Keen, Natasha Macnack, Sonja Maki, Yoana Newman, Eric Sanden, Brian Smith, Dan Waletzko, Ian Williams, David Zlesak
Spanish Minor

Spanish Minor-Liberal Arts

Spanish Minor: 22 Total Credits

Required Courses: 16 cr. hrs.
- SPAN 102 Beginning Spanish II 4
- SPAN 201 Intermediate Spanish I 3
- SPAN 202 Intermediate Spanish II 3
- SPAN 301 Conversation and Composition I 3
- SPAN 302 Conversation and Composition II 3

Directed Electives: 6 cr. hrs.
Select 6 credits from:
- SPAN 341 Spanish Civilization to 1800 3
- SPAN 342 Spanish Civilization 1800 to Present 3
- SPAN 345 Latin American Civilization to 1800 3
- SPAN 346 Latin American Civilization 1800 to Present 3
- SPAN 351 Survey of Spanish Literature-Siglo de Oro 3
- SPAN 352 Survey of Spanish Literature-Generation of 1898 to Present 3
- SPAN 355 Survey of Latin American Literature-Conquest to independence 3
- SPAN 356 Survey of Latin American Literature-Independence to Present 3
- SPAN 401 Advanced Spanish Communication 3
- SPAN 371 Bus/Cult. Hispanic World 3
- SPAN 372 Spanish for Trades and Professions 3
- SPAN 401 Advanced Spanish Communication 3
- MODL 376 Mexico: A Cultural Experience 3

Spanish Minor-Education

Complete Spanish Minor Liberal Arts program
(must include 401 and 341, 342, 345, 346 or 376)

Required supporting courses not part of minor: 6 cr. hrs.
- SPAN 350 Spanish Phonetics 3
- TED 437 Techniques of Middle/Secondary Education: Modern Language 2
- TED 448 Techniques of Elementary Education: Modern Language 2

Department of Modern Language

284 Kleinpell Fine Arts
715-425-3121
www.uwrf.edu/MODL/

- Marshall Toman, Chair
- Cecilia Bustamante
- Rebecca Raham
- Magara Maeda
- Kaishan Kong
- Julie Kovacic
- Daniela Goldfine
- Erin Russ

Emeriti:
- Kristine Butler
- Peter Johanssen
- Terrence Mannetter
- Sandra Soares
Stage and Screen Arts Major

Total Required Credit Hours: 41
All classes are 3 credits unless otherwise specified.

Required Courses (30 Credit Hours):

SASA 112 Introduction to Storytelling
SASA 113 Collaborative Problem Solving for Stage and Screen
SASA 121 Acting for Stage and Screen I
SASA 131 Visual Elements for Stage and Screen
SASA 294 Creative and Scholarly Research
SASA 335 Directing for Stage and Screen I
SASA 379 Internship
SASA 490 Entrepreneurship/Senior Capstone for Stage and Screen

Choose One – Required
SASA 231 Creating Artistic Environments for Stage and Screen
SASA 232 Costume/Makeup for Stage and Screen
SASA 233 Light and Sound for Stage and Screen

Choose One – Required
FILM 301 History of Film
SASA 337 History of Theatre

Directed Electives (11 Credit Hours)

Must take minimum of two 200 (or higher) level courses:

SASA 160 Studio Production
SASA 212 Improvisation and Devising for Stage and Screen (2 Cr.)
SASA 221 Acting for Stage and Screen II
SASA 225 Musical Theatre Performance
SASA 231 Creating Artistic Environments for Stage and Screen
SASA 232 Costume/Makeup for Stage and Screen II
SASA 233 Light and Sound for Stage and Screen II
SASA 234 Production Mgt. and Leadership for Stage and Screen
SASA 260 Electronic Field Production
SASA 261 Electronic Media Copywriting
SASA 301 History of Film
SASA 328 Theatre for Youth
SASA 303 Documentary Production
SASA 334 Playwriting
SASA 337 History of Theatre
SASA 340 Design for Stage and Screen
SASA 360 Advanced Electronic Field Production
SASA 381 Screenwriting
SASA 435 Directing for Stage and Screen II
SASA 460 Collaborative Filmmaking: Web Series
Stage And Screen Arts Minor

Total Required Credit Hours: 24-26
All classes are 3 credits unless otherwise specified.

**Required Courses (21 Credit Hours):**

- SASA 112  Introduction to Storytelling
- SASA 113  Collaborative Problem Solving for Stage and Screen
- SASA 121  Acting for Stage and Screen I
- SASA 131  Visual Elements for Stage and Screen
- SASA 335  Directing for Stage and Screen I
- SASA 490  Entrepreneurship/Senior Capstone for Stage and Screen

*Choose One – Required*
- FILM 301  History of Film
- SASA 337  History of Theatre

**Directed Electives (3-5)**

- SASA 160  Studio Production
- SASA 212  Improvisation and Devising for Stage and Screen (2 Cr.)
- SASA 225  Musial Theatre Performance
- SASA 231  Creating Artistic Environments for Stage and Screen
- SASA 232  Costume/Makeup for Stage and Screen
- SASA 233  Light and Sound for Stage and Screen
- SASA 234  Production Mgt. and Leadership for Stage and Screen
- SASA 260  Electronic Field Production
- SASA 261  Electronic Media Copywriting
- FILM 301  History of Film
- SASA 328  Theatre for Youth
- SASA 334  Playwriting
- SASA 337  History of Theatre
- SASA 340  Design for Stage and Screen
- SASA 360  Advanced Electronic Field Production
- ENGL 381  Screenwriting
- SASA 435  Directing for Stage and Screen II
- SASA 460  Collaborative Filmmaking: Web Series
Sustainability Studies Minor

Sustainability Studies Minor: 24 Total Credit hour
(ESM 105 is a prerequisite)

Required Courses: 18 Credit Hours
ESM 220 Environmental Sustainability: Theories, Issues, and Management 3 cr.
ESM 251 Community Decision-Making OR ESM 351 Planning for Sustainable Communities OR
ESCI 245 Environmental Sociology 3 cr.
SM 377 Business Ecology OR ESM 351 Planning for Sustainable Communities 3 cr.
(Students who choose ESM 351 to meet requirement (2) must take ESM 377 to meet this requirement)
CROP 368 Sustainable Agriculture 3 cr.
GEOL 350 Geological Destinies of Nations 3 cr.
AGEC 450 Introduction to Natural Resource Economics 3 cr.

Directed Electives: 6 Credit Hours
ESM 109, ESM 251*, ESM 300, ESM 303, ESM 305, ESM 343, ESM 351*, ESM 377* 2-3 cr.
GEOG 366 3 cr.
GEOL 202, GEOL 269, GEOL 330 3 cr.
SOIL 325 3 cr.
AGEN 325 3 cr.
ENGL 228 3 cr.
CHEM 200 3 cr.
SOCL 245* 3 cr.

(*This course counts as EITHER a requirement OR a directed elective.)

Interdisciplinary Minor

Plant and Earth Science Department
324 Agricultural Science
715-425-3345

Contact
Jill Coleman-Wasik, assistant professor of environmental science
jill.colemanwasik@uwrf.edu

Program Goals

1. Provide students with a multi-disciplinary foundation for thinking about sustainability.
2. Discuss the concept of sustainability from a biogeochemical perspective.
3. Address the social and economic facets of sustainability.
4. Discuss the challenges that face humanity in becoming sustainable.

Learning Outcomes

Students will be able to:

1. Create a personal definition of sustainability.
2. Analyze human impacts on natural systems and processes that affect the ability of humanity to live sustainably.
3. Interpret sustainability issues in the context of element cycles.
4. Compare and contrast the role of public and private entities in creating sustainable societies.
5. Identify facets of social/economic/industrial structures that could be changed to make society more sustainable.
Sustainable Agriculture Minor

Minor Requirements: 24-25 credits
Required courses: 12 cr. hrs.
CROP 368 Sustainable Agriculture 3 cr.
ESM 220 Environmental Sustainability: Theories, Issues and Management 3 cr. Prereq: ESM 105
AGEC 450 Introduction to Natural Resources Economics 3 cr. Prereq: AGEC 230
SOCI 332 Environmental Sociology 3 cr. Prereq: SOCI 100 or consent of instructor

Directed electives: 12 cr. hrs.
Select two from the following:
ANSC 389 Special Topics: Sustainable Animal Production 3 cr.
ANSC 365 Poultry Production 3 cr. Prereq: ANSC 232, ANSC 257
ANSC 366 Swine Production 3 cr. Prereq: ANSC 232, ANSC 231, ANSC 257, and one of the following: BIOL 150, ANSC 111 or PLSC 161
ANSC 367 Beef Production 3 cr. Prereq: ANSC 232, ANSC 231, ANSC 257, and one of the following: BIOL 150, ANSC 111 or PLSC 161
ANSC 368 Sheep Production 3 cr. Prereq: ANSC 232, ANSC 231, ANSC 257, and one of the following: BIOL 150, ANSC 111 or PLSC 161
CROP 263 Forage Crop Production 3 cr. Prereq: PLSC 161
CROP 363 Pasture Production 3 cr. Prereq: PLSC 161
CROP 468 Organic Production Systems 3 cr. Prereq: Foundation of Agriculture courses completion
DASC 306 Dairy Production 3 cr. Prereq: ANSC 232 and ANSC 257
ESM 343 Woodlot Management 3 cr. Prereq: ESM 109 or consent
HORT 327 Vegetable Science and Production 3 cr. Prereq: PLSC 161 and HORT 169
HORT 347 Fruit Science and Production 3 cr. Prereq: PLSC 161 and HORT 169

Select one from the following:
AFES 310 Agricultural Human Resource Management 3 cr. Prereq: Junior standing
AGEC 360 Farm Management 3 cr. Prereq: AGEC 230
AGEC 361 Horticultural Business Management 3 cr. Prereq: AGEC 230
AGEC 445 Land Use and Sustainable Agriculture Law 3 cr. Prereq: AGEC 230 or ESM 303, and MATH 146 or higher
AGEC 495 Special Problems in Ag Economics: Direct Marketing 3 cr.

Select one from the following:
AET 325 Alternative Energy Systems 3 cr. Prereq: CHEM 121 or equiv.
CROP 451 Integrated Pest Management 3 cr. Prereq: PLSC 161
ESM 305 Environmental Impact Assess 3 cr. Prereq: ESM 105, CHEM 121, BIOL 100 or 150, and GEOL 101.
SOIL 440 Soil and Water Conservation 4 cr. Prereq: SOIL 120, MATH 146, and computer proficiency

Students who select this minor will learn about sustainable agriculture in its broadest sense, including issues related to maintaining and/or improving crop and animal productivity, preserving environmental resources for future generations, ensuring farm profitability, and ensuring rural community vitality and viability. They learn how to build markets and opportunities for producers, and they help consumers make "green" choices on purchased products.

Sustainable agriculturalists work as producers of value added crops, such as organic produce, grains and meats. Some provide technical support for crop and animal production systems, develop soil and nutrient management plans, work with producers to control insects, diseases and other pests with integrated pest management techniques, market locally-grown food products, and research ways to make agriculture more efficient, environmentally sound and sustainable for future generations.
Sustainable Management Certificate

Program Overview
Program Curriculum for Certificates
Sustainable Management Science Certificate, 12 credits
SMGT 310 Ecology for Sustainable Management, 3 cr.
SMGT 315 Global Environmental Chemistry, 3 cr.
SMGT 320 Energy for Sustainable Management, 3 cr.
SMGT 325 Natural Resource Management, 3 cr.

Sustainable Enterprise Management Certificate, 15 credits
SMGT 230 Triple Bottom Line Accounting for Managers, 3 cr.
SMGT 235 Economics in Society and Sustainability, 3 cr.
SMGT 331 Sustainable Organizational Finance, 3 cr.
SMGT 430 International Management for a Sustainable World, 3 cr.

Select one from:
SMGT 335 Management & Environmental Information Systems, 3 cr.
SMGT 350 Operations Management and Sustainability, 3 cr.
Sustainable Management

Overview of Program

Degree Requirements: 63 total credits
The Bachelor of Science in Sustainable Management consists of 21 courses. Each student is required to successfully complete all 21 courses to graduate. There are no electives in the program. The Capstone course is usually taken in the last semester. Each course is worth three credits.

SMGT 115 Environmental Science and Sustainability
SMGT 220 Systems Thinking
SMGT 230 Triple Bottom Line Accounting for Managers
SMGT 235 Economics in Society and Sustainability
SMGT 240 Technical Writing for Sustainable Management
SMGT 310 Ecology for Sustainable Management
SMGT 315 Global Environmental Chemistry
SMGT 320 Energy for Sustainable Management
SMGT 325 Natural Resource Management
SMGT 330 Marketing for a Sustainable World
SMGT 331 Sustainable Organizational Finance
SMGT 332 Economics of Environmental Sustainability
SMGT 335 Management and Environmental Information Systems
SMGT 340 Organizational Behavior and Sustainability
SMGT 350 Operations Management and Sustainability
SMGT 360 Environmental and Sustainability Policy
SMGT 370 Logistics, Supply Chain Management, and Sustainability
SMGT 430 International Management for a Sustainable World
SMGT 435 International Development and Sustainability
SMGT 460 Environment and Society
SMGT 495 Sustainable Management Capstone

Prerequisites
- College Algebra (MATH 146 or equivalent)
- Statistics (MATH 216, MATH 226, ECON 226 or equivalent)
- Chemistry (any UWRF Chemistry course or equivalent)
- Biology (any UWRF Biology course or equivalent)
- Introductory Communications (COMS 101, COMS 116 or equivalent)

General Education and University Requirements
All students enter this program with at least 60 college-level semester credits of transferable coursework with a 2.0 or better grade point average (GPA). In addition to the general education requirements, UW-River Falls students must complete two, university-required courses in American cultural diversity and global perspectives. See list of approved courses.
Teaching English to Speakers of Other Languages Major

TESOL Liberal Arts

TESOL Major - Liberal Arts: 36-38 Total Credits

Foreign Language Requirement:
Candidates must have demonstrated proficiency in language study of a single foreign language, which can occur through two years of high school study, four semesters of university study, or other equivalent means of demonstrating proficiency in foreign language study. This foundation requirement is not included in the number of credit hours needed for the major proper: the foundation requirement of two years of foreign language study is separate from the Directed Electives.

Required Courses: 24 cr. hrs.
ENGL 211 Intro to TESOL: Reading and Writing. 3 cr.
ENGL 220 Structure of English 3 cr.
ENGL 322 Acquisition of Language 3 cr.
ENGL 360 Theory and Methodology of TESOL 3 cr.
ENGL 373 Techniques in Tutoring: TESOL Practicum 3 cr.
ENGL 420 Pedagogical Grammar 3 cr.
ENGL 451 Phonetics and Phonology 3 cr.
ENGL 475 Assessment and Testing in TESOL 3 cr.

Directed Electives 12-14 cr. hrs.
This requirement can be fulfilled through a combination of language study, study abroad, and courses listed in section 5 below or through courses selected from section 5 alone. Appropriate study abroad programs would include those with whom UWRF has associations, such as The Hessen Exchange in Germany, Wisconsin in Scotland, Wisconsin in China, and University of Guadalajara in Mexico. TESOL/MODL (German, Spanish, for examples) double majors may fulfill the directed electives with 12 credits chosen from the MODL courses listed in section 5 below.

Select among:
1. Language Option: 0-8 cr. hrs.
Select 0-8 credits from among 201, 202, 301, 302, and 401 from one of the following languages: Chinese, German, Japanese, or Spanish. (Students cannot double-count courses taken to satisfy the foundation language requirement above for this directed electives category.)

2. Semester Abroad Research: 0-6 cr. hrs.
A TESOL-based ENGL 378 or any department's 378, that is based in the discipline of TESOL and has an advisor or co-advisor from TESOL may be used to fulfill this requirement with prior approval. Requires department approval and may be added to a student’s DAR by program exception signed by the chair of the Department of English.

3. Semester Abroad: 0-6 cr. hrs.
INTS 377
Credits earned in Semester Abroad or the International Traveling Classroom could be used to meet this requirement. Courses other than INTS 377 need to be approved prior to engaging in the experience as appropriate to the TESOL major by the chair of the Department of English and may appear in this category on the DAR by program exception form signed by the chair.

4. Select up to two of the following courses: 0-6 cr. hrs.
ENGL 379 Cooperative Education and Internship II 3 cr.
MODL 376 Mexico: A Cultural Experience 3 cr.
HIST 371 Study Tour Research: China or Italy 3 cr.

5. Select from the following courses to fulfill the Directed Electives component: 0-12 cr. hrs.
ENGL 230 International Short Fiction 3 cr.
ENGL 232 Contemporary Drama 3 cr.
ENGL 306 Postcolonial Film and Literature 3 cr.

General Education Requirements-Liberal Arts

B.A. and B.S. Liberal Arts Majors
As listed with the following exceptions:
Social and Behavioral: It is RECOMMENDED that TESOL majors and minors include PSYC 101 among their three social science courses.
Mathematics: It is RECOMMENDED that TESOL majors and minors take PSYC 201, Behavioral Statistics, to fulfill their mathematics requirement.

B.S. Education Majors
As listed.

Department of English
245 Kleinpell Fine Arts
715-425-3537
www.uwrf.edu/ENGL/

Marshall Toman (Chair), Greta Gaard, Annette Klemp, Steven Luebke, Mialisa Moline, Michelle Parkinson, Vladimir Pavlov, Joseph Rein, Catherine Nasara, Elizabeth Schneider-Rebozo, Douglas Margolis
TED 461 The Psychology and Pedagogy of Literacy 3 cr.

**TESOL Education**  
**TESOL Major-Education 36-38 Total Credits**

**Foreign Language Requirement:**  
Candidates must have demonstrated proficiency in language study of a single foreign language, which can occur through two years of high school study, four semesters of university study, or other equivalent means of demonstrating proficiency in foreign language study. This foundation requirement is not included in the number of credit hours needed for the major proper: the foundation requirement of two years of foreign language study is separate from the Directed Electives.

**Required courses: 27 cr. hrs.**
- ENGL 211 Introduction to Language and Linguistics 3 cr.
- ENGL 220 Structure of English 3 cr.
- ENGL 322 Acquisition of Language 3 cr.
- ENGL 360 Theory and Methodology of TESOL 3 cr.
- ENGL 373 Techniques in Tutoring: TESOL Practicum 3 cr.
- ENGL 420 Pedagogical Grammar 3 cr.
- ENGL 450 Non-Native Speakers of the Midwest 3 cr.
- ENGL 451 Phonetics and Phonology 3 cr.
- ENGL 475 Assessment and Testing in TESOL 3 cr.

**Directed Electives: 9-11 cr. hrs.**
This requirement can be fulfilled through a combination of language study, study abroad, and courses listed in Section 5 below or through courses selected from Section 5 alone. Appropriate international programs would include those with whom UWRF has associations, such as Shih Hsin University in Taiwan, The Hessen Exchange in Germany, Wisconsin in Scotland, Wisconsin in China, and University of Guadalajara in Mexico. TESOL/MODL (German, Spanish, for examples) double majors may double count up to 12 credits of MODL language courses in this directed electives section with any combination of credits chosen from section 5 below.

Select among

1. **Language Option: 0-8 cr. hrs.**
   Select 0-8 credits from among 201, 202, 301, 302, and 401 from one of the following languages: Chinese, German, Japanese, or Spanish. (Students cannot double-count courses taken to satisfy the foundation language requirement above for this directed electives category.)

2. **Semester Abroad Research: 0-6 cr. hrs.**
   A TESOL-based ENGL 378 or any department's 378, that is based in the discipline of TESOL and has an advisor or co-advisor from TESOL may be used to fulfill this requirement with prior approval. Requires department approval and may be added to a student's DAR by program exception signed by the chair of the Department of English.

3. **Semester Abroad: 0-6 cr. hrs.**
   INTS 377
   Credits earned in Semester Abroad or the International Traveling Classroom could be used to meet this requirement. Courses other than INTS 377 need to be approved prior to engaging in the experience as appropriate to the TESOL major by the chair of the Department of English and may appear in this category on the DAR by program exception form signed by the chair.

4. **Select from the following courses: 0-6 cr. hrs.**
   - ENGL 379 Cooperative Education and Internship II 3 cr.
   - MODL 376 Mexico: A Cultural Experience 3 cr.
   - HIST 371 Study Tour Research: China or Italy 3 cr.

5. **Select from the following courses to fulfill the Directed Electives component: 0-9 cr. hrs.**
   - ENGL 230 International Short Fiction 3 cr.
ENGL 232 Contemporary Drama 3 cr.
ENGL 306 Postcolonial Film and Literature 3 cr.
ENGL 309 Film and Literature of the New Europe 3 cr.
ENGL 317 East Asian Film and Literature 3 cr.
ENGL 441 20th Century International Fiction 3 cr.
ENGL 442 World Cinema 3 cr.
ENGL 452 Lexicology 3 cr.
GERM 315 Classic and Modern German Film 3 cr.
GERM 341 German Civilization to 1648 3 cr.
GERM 342 Modern German-Speaking Cultures 3 cr.
GERM 350 German Phonetics 3 cr.
GERM 351 Survey of German Literature I 3 cr.
GERM 352 Survey of German Literature II 3 cr.
GERM 451 German Drama and Theater 3 cr.
GERM 452 German Tale, Short Story, and Novella 3 cr.
GERM 453 German Poetry 3 cr.
GERM 490 Readings in German 3 cr.
SPAN 341 Spanish Civilization to 1800 3 cr.
SPAN 342 Spanish Civilization 1800 to Present 3 cr.
SPAN 345 Latin American Civilization to 1800 3 cr.
SPAN 346 Latin American Civilization 3 cr.
SPAN 350 Spanish Phonetics 3 cr.
SPAN 351 Survey of Spanish Literature I 3 cr.
SPAN 352 Survey of Spanish Literature II 3 cr.
SPAN 355 Survey of Latin American Literature I 3 cr.
SPAN 356 Survey of Latin American Literature II 3 cr.
SPAN 371 Business and Culture in the Hispanic World 3 cr.
SPAN 372 Spanish for the Trades and Profession 3 cr.
SPAN 452 Advanced Spanish Literature 3 cr.
SPAN 455 Advanced Latin American Literature 3 cr.
SPAN 490 Readings in Spanish
COMD 162 Introduction to American Sign Language 3 cr.
COMS 313 Intercultural Communication 3 cr.
ECON 312 Political Economy of Discrimination 3 cr.
GEOG 342 Latin America 3 cr.
GEOG 343 Africa 3 cr.
GEOG 344 Asian and Oceana 3 cr.
HIST 201 Introduction to Asian Civilization 3 cr.
HIST 202 Introduction to Latin American Civilization 3 cr.
HIST 204 United States Immigration and Ethnic History 3 cr.
HIST 209 Introduction to African History 3 cr.
HIST 332 The Islamic Middle East to 1500 3 cr.
HIST 334 Modern China 1800 to Present 3 cr.
HIST 335 Modern Japan 1600 to Present 3 cr.
HIST 336 Traditional East Asia, Prehistory to 1800 3 cr.
HIST 349 Middle Eastern History and Politics 3 cr.
PHIL 245 Eastern Religions and Islam 3 cr.
SOCI 220 Sociology of Diversity 3 cr.
ANTH 231 / SOCI 231 Sociology of Globalization 3 cr.
ANTH 314 / SOCI 314 Faces of Culture 3 cr.
ANTH 322 / SOC 322 Race and Ethnicity 3 cr.
ANTH 331 / SOCI 331 Global Perspectives on Women 3 cr.
ANTH 338 / SOCI 338 Global Perspectives on Health and Disease 3 cr.
POLS 212 The Politics of Equality and Inequality in the United States 3 cr.
POLS 260 Introduction to International Relations 3 cr.
PSYC 285 Psychology of Prejudice and Racism 3 cr.
TED 461 The Psychology and Pedagogy of Literacy 3 cr.

Professional Education
Required for certification (not counted in major):
TED 428 Techniques of Elementary/Middle/Secondary Education: TESOL 3 cr.
TESOL Liberal Arts Minor
TESOL Minor - Liberal Arts: 24 Total Credits

This minor requires 24 credits of core courses and electives. Candidates must have demonstrated proficiency in language study of a single foreign language, which can occur through two years of high school study, four semesters of university study, or other equivalent means of demonstrating proficiency in foreign language study. This foundation requirement is not included in the number of credit hours needed for the minor proper; the foundation requirement of two years of foreign language study is separate from the Directed Electives.

Required Courses: 21 cr. hrs.
ENGL 220 Structure of English 3 cr.
ENGL 322 Acquisition of Language 3 cr.
ENGL 360 Theory and Methodology of TESOL 3 cr.
ENGL 373 Techniques in Tutoring: TESOL Practicum 3 cr.
ENGL 420 Pedagogical Grammar 3 cr.
ENGL 451 Phonetics and Phonology
ENGL 475 Assessment and Testing in TESOL 3 cr.

Directed Electives: 3 cr. hrs.
If you plan to earn 3 credits in an internship or traveling program appropriate to the discipline of TESOL, those credits may be used to meet this requirement. Credits that are approved prior to engaging in the experience as appropriate to the TESOL minor by the chair of the Department of English may appear in the category on the DAR by a program exception form signed by the chair. Otherwise, select one of the following:
ENGL 230 International Short Fiction 3 cr.
ENGL 232 Contemporary Drama 3 cr.
ENGL 306 Postcolonial Film and Literature 3 cr.
ENGL 309 Film and Literature of the New Europe 3 cr.
ENGL 317 East Asian Film and Literature 3 cr.
ENGL 441 20th Century International Fiction 3 cr.
ENGL 442 World Cinema 3 cr.
ENGL 450 Non-Native Speakers of the Midwest 3 cr.
ENGL 452 Lexicology 3 cr.
GERM 315 Classic and Modern German Film 3 cr.
GERM 341 German Civilization to 1648 3 cr.
GERM 342 Modern German-Speaking Cultures 3 cr.
GERM 350 German Phonetics 3 cr.
GERM 351 Survey of German Literature I 3 cr.
GERM 352 Survey of German Literature II 3 cr.
GERM 451 German Drama and Theater 3 cr.
GERM 452 German Tale, Short Story, and Novella 3 cr.
GERM 453 German Poetry 3 cr.
GERM 490 Readings in German 3 cr.
SPAN 341 Spanish Civilization to 1800 3 cr.
SPAN 342 Spanish Civilization 1800 to Present 3 cr.
SPAN 345 Latin American Civilization to 1800 3 cr.
SPAN 346 Latin American Civilization 3 cr.
SPAN 350 Spanish Phonetics 3 cr.
SPAN 351 Survey of Spanish Literature I 3 cr.
SPAN 352 Survey of Spanish Literature II 3 cr.
SPAN 355 Survey of Latin American Literature I 3 cr.
SPAN 356 Survey of Latin American Literature II 3 cr.
SPAN 371 Business and Culture in the Hispanic World 3 cr.
SPAN 372 Spanish for the Trades and Profession 3 cr.
SPAN 452 Advanced Spanish Literature 3 cr.
SPAN 455 Advanced Latin American Literature 3 cr.
SPAN 490 Readings in Spanish
COMD 162 Introduction to American Sign Language 3 cr.
COMS 313 Intercultural Communication 3 cr.
ECON 312 Political Economy of Discrimination 3 cr.
GEOG 342 Latin America 3 cr.
GEOG 343 Africa 3 cr.
GEOG 344 Asian and Oceana 3 cr.
HIST 201 Introduction to Asian Civilization 3 cr.
HIST 202 Introduction to Latin American Civilization 3 cr.
HIST 204 United States Immigration and Ethnic History 3 cr.
HIST 209 Introduction to African History 3 cr.
HIST 332 The Islamic Middle East to 1500 3 cr.
HIST 334 Modern China 1800 to Present 3 cr.
HIST 335 Modern Japan 1600 to Present 3 cr.
HIST 336 Traditional East Asia, Prehistory to 1800 3 cr.
HIST 349 Middle Eastern History and Politics 3 cr.
PHIL 245 Eastern Religions and Islam 3 cr.
SOCI 220 Sociology of Diversity 3 cr.
ANTH 231 / SOCI 231 Sociology of Globalization 3 cr.
ANTH 314/ SOCI 314 Faces of Culture 3 cr.
ANTH 322/ SOC 322 Race and Ethnicity 3 cr.
ANTH 331/ SOCI 331 Global Perspectives on Women 3 cr.
ANTH 338/ SOCI 338 Global Perspectives on Health and Disease 3 cr.
POLS 212 The Politics of Equality and Inequality in the United States 3 cr.
POLS 260 Introduction to International Relations 3 cr.
PSYC 285 Psychology of Prejudice and Racism 3 cr.
TED 461 The Psychology and Pedagogy of Literacy 3 cr.

TESOL Education Minor
TESOL Minor - Liberal Arts: 24 Total Credits
This minor requires 24 credits of core courses and electives. Candidates must have demonstrated proficiency in language study of a single foreign language, which can occur through two years of high school study, four semesters of university study, or other equivalent means of demonstrating proficiency in foreign language study. This foundation requirement is not included in the number of credit hours needed for the minor proper; the foundation requirement of two years of foreign language study is separate from the Directed Electives.

Required Courses 24 credits
ENGL 211 Introduction to TESOL: Reading and Writing 3 cr.
ENGL 220 Structure of English 3 cr.
ENGL 322 Acquisition of Language 3 cr.
ENGL 360 Theory and Methodology of TESOL 3 cr.
ENGL 373 Techniques in Tutoring: TESOL Practicum 3 cr.
ENGL 420 Pedagogical Grammar 3 cr.
ENGL 451 Phonetics and Phonology 3 cr.
ENGL 475 Assessment and Testing in TESOL 3 cr.

Directed Electives (required supporting courses) 6 credits
ENGL 450 Nonnative Speakers in the Midwest 3 cr.
TED 428 Techniques in Elementary/Middle School Education: TESOL 3 cr.

Keep a copy for your records of the Content Standards required for licensure available for all English classes at
Minor in Women's and Gender Studies 21 Total Credits

Required Core Course for all minors 3 credits
WGST 200 (d) Introduction to Women's and Gender Studies

Directed Electives 18 credits
Choose any WGST course (co-listed or stand-alone)

- WGST 289 Special Topics in Women's and Gender Studies
- WGST 350 Introduction to LGBTQ+ Studies: Genders and Sexualities
- WGST 379 Internship/Service Learning 3-6 cr.
- WGST 389 Topics in Women's and Gender Studies
- WGST 499 Directed Study
- WGST 321 / ART 321 Gender and Art
- WGST 206 / COMS 206 Family Communication
- WGST 440 / COMS 440 Gender Communication
- WGST 351/CRIM 351 Women, Crime & Justice
- WGST 214 / ENGL 214 Women's Literature
- WGST 215 / ENGL 215 LGBTQ Literature
- WGST 235 / ENGL 235 American Autobiography
- WGST 300 / ENGL 300 Women, Film, and Society
- WGST 443 / ENGL 443 American Ethnic Women Authors
- WGST 205 / HIST 205 Women's History: United States
- WGST 303 / HIST 303 Women's History: Europe
- WGST 320/PHYS 320 Gender Issues in Science
- WGST 314 / POLS 314 Women and Politics
- WGST 225 / PSYC 225 Psychology of Gender
- WGST 375 / PSYC 375 Psychology of Human Sexuality
- WGST 221 / ANTH 221 / SOCI 221 Global Perspectives on Women
- WGST 323 / SOCI 323 Sociology of Family
- WGST 326 / SOCI 326 Sociology of Gender Roles
Agricultural Education, Initial Certification

This option is designed for students with a non-teaching baccalaureate degree seeking initial teacher licensure as agricultural education instructors.

Educators in both classroom and non-formal settings who wish to continue their professional development should consider the graduate degree in Professional Development in Agricultural Education.

Initial Teaching Licensure
Degree Requirements

Undergraduate Licensure Requirements, 15 credits or more
TED 440 Techniques in Agriculture., 3 credits
Choose one student teaching option, 12 credits
TED 472 Student Teaching - Initial
TED 473 Student Teaching - Additional License
TED 474 Student Teaching - COST International
TED 479 K-12 Internship Teaching
Any classes needed to meet WI Department of Public Instruction requirements for agricultural education content and general education.

Licensure Requirements, 30 credits
AGED 569 Philosophy of Vocational and Cooperative Education, 4 credits
AGED 603 Supervision of Work Experience and Youth Organizations, 3 credits
AGED 630 Methods of Teaching Ag Mechanics, 3 credits
AGED 662 Curriculum Design in Vocational Education, 3 credits
AGED 701 Advanced Leadership and Group Dynamics, 2 credits
ESM 500 Environmental Education, 3 credits
SPED 530 Exceptional Child, 3 credits
TED 622 Secondary School & Content Area Reading, 3 credits
TED 701 Psychology of Teaching and Learning, 3 credits
TED 706 Historical, Philosophical, and Multicultural Foundations of Education, 3 credits

Research Requirements, 4-6 credits
AGED 781 Graduate Seminar, 1 credit
AGED 782 Research Seminar I, 1 credit
AGED 783 Research Seminar II, 1 credit
Choose from:
AGED 777 Capstone Experience, 1-3 credits
or AGED 793 Final Research Paper, 1-3 credits
or AGED 799 Thesis, 1-3 credits

Additional licensure requirements include a portfolio, demonstration of basic skills, demonstration of academic progress, demonstration of subject matter, and 2,000 hours of work experience in occupations related to agriculture, food or natural resources.

For More Information
Dr. Tim Buttles, Program Coordinator
College of Agriculture, Food and Environmental Science
Department of Agricultural Education
715-425-3555
Email
Agricultural Education, Professional Development

This option is designed for educators in both classroom and non-formal settings who wish to continue their professional development.

Students with a non-teaching baccalaureate degree seeking initial teacher licensure as agricultural education instructors should consider the Initial Teaching Licensure in Agricultural Education.

Professional Development in Agricultural Education

Degree Requirements

Professional Education, 7 credits
TED 740 History, Philosophy and Multicultural Education, 4 credits
TED 750 Advanced Educational Psychology, 3 credits
or TED 760 Methods of Research, 3 credits

Specialization, 20-21 credits
AGED 781 Graduate Seminar, 1 credit
AGED 782 Research Seminar I, 1 credit
AGED 783 Research Seminar II, 1 credit
AGED 798 Independent Research, 1-3 credits
or AGED 799 Thesis, 2-3 credits

Specialization Electives, 9-14 credits
AGED electives, 3-6 credits
Selected upon consultation with advisor

Non-Specialization, 3 credits
Elective courses from outside the departments and selected for either professional education or specialization.

For More Information
Dr. Tim Buttles, Program Coordinator
College of Agriculture, Food and Environmental Science
Department of Agricultural Education
715-425-3555
Email
We are no longer accepting applications for this academic program. Please browse our list of additional graduate programs.

Program Curriculum
To qualify for Wisconsin certification in alternative education, students will complete four core classes (eight credits) and a certification portfolio as specified by the Wisconsin Department of Public Instruction.

Students will also complete a practicum concurrently with the four core classes. To do so, students need to be working in an alternative education program or arrange to have access to a program so that observations can be made and conversations held with practitioners.

AED 700 History and Philosophy of Alternative Education, 2 credits
AED 701 Alternative Education Students: Who are They?, 2 credits
AED 702 Teaching and Working with Alternative Students, 2 credits
AED 703 Building and Evaluating Alternative Programs, 2 credits
Elective Course
AED 689 Topics in Alternative Education, 2 credits

For More Information
Pamela Bowen
Program Manager
715-425-0633
Master of Business Administration

MBA Degree Requirements
Core Courses, 21 credits

MNGT 700 Organizational Theory and Behavior, 3 credits
MKTG 702 Strategic Marketing Management, 3 credits
MNGT 705 Operations Management, 3 credits
ECON 730 Managerial Statistics, 3 credits
FINC 732 Financial Management, 3 credits
ACCT 734 Managerial Accounting, 3 credits
MNGT 720 Strategy and Organizational Performance, 3 credits (capstone)

Elective Courses, 12 credits minimum or 4 courses

MNGT 701 Leadership and Ethics, 3 credits
MNGT 703 Human Resource Management, 3 credits
MNGT 704 Fundamentals of Business Law, 3 credits
ECON 731 Managerial Economics, 3 credits
MNGT 733 Leading Change, 3 credits
MNGT 737 Innovation and Design, 3 credits
MNGT 738 Practicum
MNGT 739 International Business, 3 credits
MNGT 742 Team Engagement, 3 credits

MBA program
College of Business and Economics

Leanne Van Allen, Director
mbacbe@uwrf.edu
715-425-3335
More information.
Clinical Exercise Physiology, MS

Program Overview

Degree Requirements

Total credits to degree: 34

- BIOL 700 Cardiac Anatomy and Physiology, 4 cr.
- EXSS 701 Advanced Physiology of Exercise, 3 cr.
- EXSS 705 Nutrition in Health & Human Performance, 3 cr.
- BIOL 710 Medical Pharmacology, 3 cr.
- EXSS 715 Statistics and Research Methods in Health and Human Performance, 3 cr.
- EXSS 720 Clinical Patient Behavior Change, 3 cr.
- EXSS 745 Physical Activity and Chronic Disease, 3 cr.
- EXSS 755 ECG Analysis/Graded Exercise Testing, 3 cr.
- EXSS 785 Cardio-Pulmonary Rehabilitation, 3 cr.
- EXSS 799 Thesis, 3 cr. and EXSS 774 Clinical Internship, 3-6 cr.

or

Capstone Experience and EXSS 774 Clinical Internship, 6 cr.
Overview of Program

Master of Science Degree Requirements

Total credits to degree: 54

**Required Specialization Courses**, 36 credits:

- CSD 715 Research Methods in Communicative Disorders, 3 credits
- CSD 716 Anatomy and Physiology of the Central Nervous System, 2 credits
- CSD 717 Cognitive Disorders in Adults, 3 credits
- CSD 720 Voice and Resonance Disorders, 3 credits
- CSD 730 Audiology II, 3 credits
- CSD 737 Auditory Processing and Auditory Processing Disorder, 2 credits
- CSD 750 Dysphagia, 3 credits
- CSD 762 Developmental Language Disorders, 3 credits
- CSD 764 Augmentative/Alternative Communication Systems, 3 credits
- CSD 765 Aphasia, 3 credits
- CSD 767 Communicative Replacements for Challenging Behaviors, 2 credits
- CSD 770 Articulation/Phonology and Fluency Disorders, 2 credits
- CSD 771 Audiology Practicum 1, one credit
- CSD 772 Audiology Practicum 2, one credit
- CSD 787 Counseling and Multicultural Issues in Communicative Disorders, 2 credits

**Elective Courses, 0-8 credits**

- CSD 798 Independent Research, 1-4 credits
- CSD 799 Thesis, 1-4 credits

**Required Clinical Experience**, 18 credits:

- CSD 579 Clinical Experience Internship, 6 credits
- CSD 773 Practicum in the School, 0 or 6 credits
- CSD 774 Practicum in Rehabilitation Facilities, 6 or 12 credits

Students must choose one of the following plan options.

**Plan A**

A minimum of 54 semester credits of graduate work including a master's thesis, for which a student may receive up to four graduate credits for research in an area of specialization. Final oral exam.

**Plan B**

A minimum of 54 semester credits of graduate work including a paper/project approved by the program director. Final oral exam.

**Plan C**

A minimum of 54 semester credits of graduate work. A written comprehensive exam and final oral exam.
Master of Science in Computer Science

For more information, visit our [website](#).

### Degree Requirements

**Computer Science required courses** - 24 credits

- CSIS 630 Enterprise and Cloud Computing, 3 credits
- CSIS 631 Distributed and Mobile Computing, 3 credits
- CSIS 634 Software Engineering and Design Patterns, 3 credits
- CSIS 732 Information Security, 3 credits
- CSIS 733 Computing for Data Science and Big Data Analysis, 3 credits
- CSIS 735 Machine Learning and Knowledge Discovery, 3 credits
- CSIS 736 Technology Innovation, New Product Development and Sustainability
- CSIS 738 Practicum, 3 credits

**Graduate Management elective courses** - 6 credits minimum or 2 courses

- MNGT 700 Organizational Theory and Behavior, 3 credits
- MNGT 701 Leadership and Ethics, 3 credits
- MKTG 702 Strategic Marketing Management, 3 credits
- MNGT 703 Human Resources Management, 3 credits
- MNGT 705 Operations and Project Management, 3 credits
- FINC 732 Financial Management, 3 credits

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**College of Business and Economics**

Leanne Van Allen, Director
Graduate Programs Office
216 South Hall
mecs@uwrf.edu
715-425-4691
MSCS website

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Counseling, MSE

Overview of Program

Program Curriculum

The Counseling Program meets state standards for certification. It also adheres to the profession's accepted and established practices for training school counselors. Visit the Counseling and School Psychology Department web page for more information.

Required Courses, 48 credits

Core courses, 27 cr.
- COUN 610 Introduction to School Counseling, 3 cr.
- COUN 612 Lifespan Human Development, 3 cr.
- COUN 614 Counseling Practicum, 3 cr.
- COUN 615 Cultural & Ethical Foundations of Counseling, 3 cr.
- COUN 620 Career Counseling, 3 cr.
- SPSY 622 Introduction to Appraisal & Intervention, 3 cr.
- COUN 732 Group Counseling, 3 cr.
- COUN 753 Counseling Theory and Skills, 3 cr.
- COUN 770 Comprehensive School Counseling Programming, 3 cr.

Required classes, 12 cr.
- SPSY 795 Research and Program Evaluation, 3 cr. (Requires additional Independent Study credit)
- COUN 771 Internship: Elementary School Counseling, 3 cr.
- COUN 772 Internship: Middle School Counseling, 3 cr.
- COUN 773 Internship: High School Counseling, 3 cr.

Before finalizing Internship plans, the student must pass a written examination based upon the content of all of the core course.

Directed elective courses, 9 cr.
To be selected in consultation with an advisor

Students will also present a portfolio indicating knowledge and application of Wisconsin Department of Public Instruction Standards for Professional School Counselors. Completion of the internship and of the master's program is dependent upon approval of the portfolio by the program faculty and the practicum supervisors in the field.
Elementary Education, MSE

Degree Requirements

Initial Licensure Requirements, 32 credits

First Fall Term
TED 701 Psychology of Teaching and Learning, 3 credits
TED 706 Historical, Philosophical and Multicultural Foundations of Education, 3 credits
TED 708 Pre-Kindergarten and Kindergarten Curriculum and Early Childhood Methods, 3 credits

Winter Term
TED 661 Health and Physical Education for Elementary Teachers, 2 credits

Spring Term
TED 711 Literacy Methods: English Language Arts Assessment, Instruction and Intervention, 3 credits
TED 713 Social Studies Methods and Children’s Literature, 3 credits
TED 716 Inclusive Education for English Learners and Students with Special Needs, 3 credits

Summer Term
TED 726 Creative Expression: Methods in Arts, Integrated Movement and Wellness, 3 credits

Second Fall Term
TED 731 STEM-infused Math for Elementary Educators, 3 credits
TED 738 Integrated STEM: Methods for Elementary Science Education, 3 credits
TED 741 Assessment Principles for Elementary Educators, 3 credits

Required for Teaching Certification (6 credits)
TED 746 Student Teaching, Grades PreK-6, 6 credits

Prior to student teaching, student must also receive a qualifying minimum score of 157 from Praxis Subject Assessment Exam for Elementary Education (#5018) and a passing score on the Wisconsin Foundations of Reading Test (FORT).

See the Educator Preparation Program for more information.

Master of Science Degree Completion Requirements, 3 credits
TED 748 Capstone Experience Course for Elementary Teachers, 3 credits

For More Information

Dr. Hiawatha Smith, Faculty Director
College of Education and Professional Studies
Teacher Education Department
Email
715-425-4648

Pamela Bowen, Program Manager
Continuing Education
Email
715-425-0633
Health and Wellness Management, MS

Overview of Program

Program Curriculum, 36 credits

Courses are offered online by faculty from several University of Wisconsin campuses. All applicants will need to demonstrate that they have taken the following prerequisite courses.

Program Prerequisites:
Personal Health or Equivalent
Anatomy and Physiology or Human Biology or Equivalent
Intro to Psychology or Equivalent
Elementary Statistics or Equivalent

Required Courses:
HWM 700 Contemporary Health and Wellness Perspectives, 3 credits
HWM 705 Strategic Management for Wellness Managers, 3 credits
HWM 710 Research Methods for Wellness Programs, 3 credits
HWM 715 Persuasion Skills for Wellness Managers, 3 credits
HWM 720 Exercise and Nutrition in Health and Disease, 3 credits
HWM 730 Biopsychosocial Aspects of Health, 3 credits
HWM 740 Health Systems and Policy for Wellness Managers, 3 credits
HWM 750 Planning and Evaluation for Wellness Managers, 3 credits
HWM 760 Wellness Law, 3 credits
HWM 770 Behavior and Development in Organizations, 3 credits
HWM 780 Best Practices and Emerging Issues in Wellness, 3 credits
HWM 790 Health and Wellness Management Capstone Course, 3 credits

Visit the website for more information.

Contacts
Academic Director: Jodee Schaben
Email
Program Manager: Angela Whitaker
Email

The Health and Wellness Management degree is housed in the College of Education and Professional Studies.

Program Description

The Master of Science in Health and Wellness Management is a collaborative effort with UW-Extension which will equip students with the skills necessary to design, develop, implement, and maintain health and wellness programs in the workplace. This degree program helps students learn more about the seven dimensions of wellness and how they affect our lives and well-being.

Information on our online, undergraduate degree is available at the Bachelor of Science in Health and Wellness Management web page.
Mathematics, MSE

Degree Requirements for Master of Science in Education in Mathematics

There are two different options that students can complete in order to satisfy the requirements of the degree. They can either complete a Research Option (31 credits) or a Capstone Option (34 credits). Both options require 24 credits in mathematics content work for educators, as well as three credits related to emerging technology in the teaching and learning of mathematics.

Research Option (31 credits)

**Area of Specialization - Mathematics Secondary Education Content Domains (24 credits)**

Two mathematics content courses for educators are offered each summer. They are repeated every three years.

- MATH 711 Geometry for Educators, 4 credits
- MATH 726 Statistics for Educators, 4 credits
- MATH 736 Discrete Math for Educators, 4 credits
- MATH 751 Linear and Abstract Algebra for Educators, 4 credits
- MATH 756 Probability for Educators, 4 credits
- MATH 766 Calculus for Educators, 4 credits

**Area of Specialization - Mathematics Secondary Education Technology (3 credits)**

This course is offered in the spring every two to three years.

- MATH 705 Integrating Emerging Technologies in the Teaching and Learning of Mathematics, 3 credits

**Area of Specialization - Mathematics Secondary Education Research (4 credits)**

These courses are recommended to be taken at the same time, in order to assist in writing the Research Paper.

- TED 760 Methods in Research, 3 credits
- MATH 798 Independent Research, 1 credit

Complete Research Paper.
Complete Final Oral Exam with graduate committee.

Capstone Option (34 credits)

**Area of Specialization - Mathematics Secondary Education Content Domains (24 credits)**

Two mathematics content courses for educators are offered each summer. They are repeated every three years.

- MATH 711 Geometry for Educators, 4 credits
- MATH 726 Statistics for Educators, 4 credits
- MATH 736 Discrete Math for Educators, 4 credits
- MATH 751 Linear and Abstract Algebra for Educators, 4 credits
- MATH 756 Probability for Educators, 4 credits
- MATH 766 Calculus for Educators, 4 credits

**Area of Specialization - Mathematics Secondary Education Technology (3 credits)**

This course is offered in the spring every two to three years.

- MATH 705 Integrating Emerging Technologies in the Teaching and Learning of Mathematics, 3 credits

**Area of Specialization - Mathematics Secondary Education Capstone Electives (7 credits)**

Two to three courses should be selected from the following in order to support further work into mathematical knowledge for teaching.

For More Information

Erick Hofacker
Mathematics Department
715-425-4267
Email
MATH 689 Special Topics in Mathematics, up to 6 credits
MATH 789 Special Topics in Mathematics, up to 6 credits
MATH 798 Independent Research, up to 4 credits
TED 750 Advanced Educational Psychology, 3 credits
TED 755 Social Issues in Education, 3 credits
TED 760 Methods in Research, 3 credits

Complete Final Oral Exam with graduate committee.
Montessori Teacher Education Graduate Program

Program Overview

Program Curriculum

The academic plan will depend on the age level credential and whether or not a master's degree is also sought.

Early Childhood (ages 3-6) Credential, 29 credits

MONT 500 Montessori Philosophy and Pedagogy, 2 cr.
MONT 702 Supporting At-Risk Children in Montessori Early Childhood Classrooms, 1 cr.
MONT 710 Practical Life and Preparation of the Environment, 2 cr.
MONT 711 Montessori Child Observation, 1 cr.
MONT 712 Child Development, 2 cr.
MONT 722 Early Childhood Literacy Foundations, 3 cr.
MONT 732 Early Childhood Social Studies and Science, 3 cr.
MONT 740 Sensorial, 2 cr.
MONT 742 Early Childhood Mathematics, 2 cr.
MONT 752 Early Childhood Music, Movement and the Arts 2 cr.
MONT 762 Early Childhood Leadership and Classroom Management, 3 cr.
MONT 781 Practicum A, 2 cr.
MONT 782 Practicum B, 2 cr.
MONT 791 Montessori Certification Project A, 1 cr.
MONT 792 Montessori Certification Project B, 1 cr.

Add On Master of Science in Education, 3 additional credits

Complete the courses required above then complete the following courses:

MONT 785 Research in Montessori Education, 3 cr.
MONT 793 Final Research Paper, 2 cr. (replaces MONT 791 and MONT 792 in Credential curriculum)

Elementary 1 (ages 6-9) Credential, 38-41 credits

MONT 500 Montessori Philosophy and Pedagogy, 2 cr.
MONT 505* Early Childhood Curriculum Overview, 3 cr.
MONT 704 Supporting At-Risk Learners in Montessori Elementary Classrooms, 1 cr.
MONT 705 Great Lessons, 1 cr.
MONT 711 Montessori Child Observation, 1 cr.
MONT 712 Child Development, 2 cr.
MONT 724 E1 Literacy and Language Arts, 4 cr.
MONT 734 E1 Social Studies, 3 cr.
MONT 735 E1 Science, 3 cr.
MONT 744 E1 Mathematics, 3 cr.
MONT 745 E1 Geometry, 2 cr.
MONT 754 Elementary Music, Movement and Arts, 4 cr.
MONT 763 Elementary Classroom Management, 2 cr.
MONT 764 Elementary Classroom Leadership and Practical Life, 2 cr.
MONT 783 Elementary Practicum A, 3 cr.
MONT 784 Elementary Practicum B, 3 cr.
MONT 791 Montessori Certification Project A, 1 cr
MONT 792 Montessori Certification Project B, 1 cr.

*Required if student does not have Montessori credential in Early Childhood (ages 3-6).

Add On Master of Science in Education, 3 additional credits

Complete the courses required above then complete the following courses:

MONT 785 Research in Montessori Education, 3 cr
MONT 793 Final Research Paper, 2 cr. (replaces MONT 791 and MONT 792 in Credential curriculum)

For More Information

Linda Jacobson, Program Manager
Email
715-425-3190
Add On Elementary 2 (ages 6-12) Credential, 15 additional credits

Complete the Elementary 1 courses above unless the applicant is already credentialed to teach ages 6-9 and then complete the following courses:

MONT 726 E2 Language Arts and Literacy, 3 cr.
MONT 736 E2 History and Geography, 3 cr.
MONT 737 E2 Physical Sciences, 2 cr.
MONT 738 E2 Biological Sciences, 2 cr.
MONT 747 E2 Geometry, 2 cr.
MONT 746 E2 Mathematics, 3 cr.
Principal Licensure, MSE

Overview of Program

Degree Requirements

First Summer:
PLP 761 Leadership Development Seminar I, 4 credits

First Fall Semester:
PLP 762 Oral & Written Communication, 1 credit
PLP 763 The K-12 Principalship, 3 credits

First Spring Semester:
PLP 764 Politics of Education, 1 credit
PLP 765 School Law, 3 credits

Second Summer:
PLP 766 Leadership Development Seminar II, 4 credits
TED 760 Methods of Research, 3 credits

Second Fall Semester:
PLP 767 Finance/Budget, 1 credit
PLP 768 Professional Development and Supervision, 3 credits
PLP 771 Internship/Seminar/Project I, 3 credits

Second Spring Semester:
PLP 769 Student Services, 1 credit
PLP 770 Curriculum K-12, 3 credits
PLP 772 Internship/Seminar/Project II, 3 credits

In the final phase of the program, a portfolio providing evidence of the skills needed to meet National Policy Board and Wisconsin Administrator standards is presented to a review panel of faculty and an area administrator.

Transfer Credits
Students may request that previously completed courses count toward licensure requirements.

Director of Instruction Certification Requirements
Students also have the option to take an additional three-credit course that is offered during the summer term. This course, in combination with the coursework required for the Principal Licensure degree, will qualify graduates to earn the Wisconsin Director of Instruction licensure. If students have previously completed a Wisconsin Principal Licensure certification program, they should contact the program coordinator for details about additional coursework that may be required to receive the certification.

TED 768 Curriculum of the Secondary School, 3 credits

For More Information
Dr. Florence Monsour
Program Coordinator
715-425-3182
E-mail
Program Curriculum

You will take all classes as a cohort and complete your 30-credit degree in five, six-credit terms. Classes meet on weekends and evenings with online coursework.

TED 751 Learning in Community: Collaboration, Inquiry and Reflection, 4 credits
TED 752 Introduction to Educational Research, 2 credits
TED 753 Cultivating Social Justice and Equity, 3 credits
TED 754 The Learner: Knowledge Construction and Meeting the Unique Needs of Learners, 3 credits
TED 756 Educational Action Research: Methods and Practice, 3 credits
TED 757 The Learning Process: Construction of Effective Learning Environments, 3 credits
TED 767 Independent Experiential Learning Seminar, 3 credits
TED 769 The Profession: Current Trends and the Teacher-Leader, 3 credits
TED 792 Professional Development Capstone Seminar, 3 credits
TED 793 Capstone Experience, 3 credits

Although it is not imperative that you are actively teaching, you must have access to an academic workplace to apply the curriculum and conduct research. Students who have previous graduate credits may request that these courses be applied toward the elective credits.
Reading, MSE

Degree Requirements

Complete the following courses and other requirements to earn the MSE degree, the Wisconsin Reading Specialist license (5017) and the Wisconsin Reading Teacher license (1316).

READ 700 Foundations of Literacy, 3 credits
READ 705 Elementary Language Arts, 3 credits
READ 722 Content Area Literacy in Secondary Schools, 3 credits
READ 730 Teaching Students with Reading Difficulties, 3 credits
READ 750 Children's Literature in the Reading Program, 3 credits
READ 765 Appraisal and Intervention, 3 credits
READ 766 Administration and Supervision of the Reading Program, 3 credits
READ 770 Professional Development in Literacy, 3 credits
READ 785 Literacy Research, 3 credits
READ 786 Teacher Action Research in Literacy, 3 credits

Research Paper
Oral Comprehensive Exam

Reading Teacher License (WI 1316)

Complete the following courses to earn the Wisconsin Reading Teacher license within one year.

READ 700 Foundations of Literacy, 3 credits
READ 705 Elementary Language Arts, 3 credits
READ 722 Content Area Literacy in Secondary Schools, 3 credits
READ 730 Teaching Students with Reading Difficulties, 3 credits
READ 750 Children's Literature in the Reading Program, 3 credits
READ 765 Appraisal and Intervention, 3 credits

For More Information

Amy Frederick
Reading Coordinator

College of Education and Professional Studies
Other Graduate Programs
School Psychology Ed. S.

Program Overview

Degree Requirements for Education Specialist

Required Courses, 31 credits:

SPSY 722 School Crisis Prevention & Intervention, 1 credits
SPSY 732 Early childhood and ASD Assessment & Intervention, 2 credits
SPSY 740 Legal and Ethical Issues in School Psychology, 3 credits
SPSY 742 School-based Advocacy & Public Policy, 1 credits
SPSY 752 Advanced School Interventions, 2 credits
SPSY 769 Psychoeducational Consultation, 3 credits
SPSY 771 Practicum I, 4 credits
SPSY 772 Practicum II, 4 credits
SPSY 775 Internship in School Psychology I, 5 credits
SPSY 776 Internship in School Psychology II, 5 credits
SPSY 798 Independent Research, 1 credit

Candidates are eligible for full licensure upon completion of the 35-credit Master of Science in Education (M.S.E.) degree and the 31-credit Educational Specialist (Ed.S.) degree, for a total of 66 graduate credits.

Additional Program Information

Wisconsin and Minnesota require that applicants for teacher certification, including school psychology, submit fingerprints with the certification application. In addition, criminal background checks are required.

Completion of a certification portfolio as specified by the Wisconsin Department of Public Instruction.
School Psychology MSE

Program Overview

Degree Requirements for Master of Science in Education

Required Courses, 35 credits:

SPSY 620 Introduction to Multi-Tiered Systems of Support, 3 credits
SPSY 622 School Behavior Assessment & Intervention, 3 credits
SPSY 651 Diversity, Social and Cultural Issues, 3 credits
SPSY 701 Introduction to School Psychology, 3 credits
SPSY 745 Psychoeducational Assessment & Intervention I, 3 credits
SPSY 746 Psychoeducational Assessment & Intervention II, 3 credits
SPSY 747 Mental Health Classification, Assessment & Intervention, 3 credits
SPSY 795 Research & Program Evaluation, 3 credits
SPED 530 The Exceptional Child, 3 credits
COUN 612 Lifespan Human Development, 3 credits
COUN 732 Group Counseling, 3 credits
COUN 789 Special Topics: counseling Micro Skills, 2 credits

Additional Program Information

Completion of a certification portfolio as specified by the Wisconsin Department of Public Instruction.
Program Curriculum

You will take all classes as a cohort and complete your 30-credit degree in five, six-credit terms. Classes meet on weekends and evenings with online coursework.

TED 751 Learning in Community: Collaboration, Inquiry and Reflection, 4 credits
TED 752 Introduction to Educational Research, 2 credits
TED 753 Cultivating Social Justice and Equity, 3 credits
TED 754 The Learner: Knowledge Construction and Meeting the Unique Needs of Learners, 3 credits
TED 756 Educational Action Research: Methods and Practice, 3 credits
TED 757 The Learning Process: Construction of Effective Learning Environments, 3 credits
TED 767 Independent Experiential Learning Seminar, 3 credits
TED 769 The Profession: Current Trends and the Teacher-Leader, 3 credits
TED 792 Professional Development Capstone Seminar, 3 credits
TED 793 Capstone Experience, 3 credits

Although it is not imperative that you are actively teaching, you must have access to an academic workplace to apply the curriculum and conduct research. Students who have previous graduate credits may request that these courses be applied toward the elective credits.

College of Education and Professional Studies
Department of Teacher Education
Elizabeth Janey, Director
715-425-3665
Email
Pamela Bowen, Program Manager
715-425-0633
Email
STEMteach

Program Overview

Program Curriculum

Students will take courses in a cohort fashion beginning in the summer and continuing throughout one academic year, including the January term.

Required Courses (24 credits)

- **UTCH 701 STEM teach**: Steps 1 and 2, 3 credits
- **UTCH 702 Knowing and Learning in Math and Science**, 3 credits
- **UTCH 703 Classroom Interactions**, 3 credits
- **UTCH 704 Project-based Instruction**, 3 credits
- **UTCH 705 Teaching STEM Reading in Secondary Schools**, 3 credits
- **UTCH 706 Functions and Modeling**, 3 credits
- **UTCH 707 Perspectives in Math and Science**, 3 credits
- **UTCH 708 Apprentice Teaching Seminar**, 3 credits

**Required for Teaching Certification (6 credits)**

- **UTCH 709 STEM Apprentice Teaching for Secondary and Middle Grades**, 6 credits

Licensure Requirements

The number and type of licenses that may be earned will depend on the candidate's undergraduate major, graduate electives and scores on general knowledge science exams. Wisconsin licenses available include: Biology (1605); Chemistry (1610); Computer Science (1405); Earth and Space Science (1635); Physics (1625); Broadfield Science (1601); Physical Science (1637); Environmental Studies (1615); Life and Environmental Science (1606); and Mathematics (1400).

Those seeking teaching licenses for Minnesota or other states should confirm the fit of this program's curriculum with the requirements of their chosen state. For more information on teaching licensing and basic skills and content area exams, see the Education Preparation Program web site.

Master of Science in Education Degree

You may also choose to complete a master of science in education degree in secondary education by completing one of the following options in addition to the courses listed above.

**Thesis**, 6 additional graduate credits (30 total credits)

- **TED 760 Methods of Research**, 3 credits
- **TED 799 Thesis**, 3 credits (or a science, technology, or math 799 class at 3 credits)

Oral or written comprehensive exam

**Research Paper**, 6 additional graduate credits (30 total credits)

- **TED 760 Methods of Research**, 3 credits
- **TED 780 Professional Development Practicum**, 3 credits (or an approved teacher education (TED) science, technology or math, special topics course, 789 or 793)

Oral or written comprehensive exam

**Capstone Experience**, 10 additional graduate credits (34 total credits)

- 10 credits of approved graduate coursework
Program Overview

Program Curriculum

Students will take courses in a cohort fashion beginning in the summer and continuing throughout one academic year, including the January term.

Required Courses (24 credits)

- **UTCH 701 STEM teach: Steps 1 and 2**, 3 credits
- **UTCH 702 Knowing and Learning in Math and Science**, 3 credits
- **UTCH 703 Classroom Interactions**, 3 credits
- **UTCH 704 Project-based Instruction**, 3 credits
- **UTCH 706 Teaching STEM Reading in Secondary Schools**, 3 credits
- **UTCH 707 Functions and Modeling**, 3 credits
- **UTCH 708 Perspectives in Math and Science**, 3 credits
- **UTCH 709 Apprentice Teaching Seminar**, 3 credits

Required for Teaching Certification (6 credits)

- **UTCH 709 STEM Apprentice Teaching for Secondary and Middle Grades**, 6 credits

Licensure Requirements

The number and type of licenses that may be earned will depend on the candidate's undergraduate major, graduate electives and scores on general knowledge science exams. Wisconsin licenses available include: Biology (1605); Chemistry (1610); Computer Science (1405); Earth and Space Science (1635); Physics (1625); Broadfield Science (1601); Physical Science (1637); Environmental Studies (1615); Life and Environmental Science (1606); Mathematics (1400).

Those seeking teaching licenses for Minnesota or other states should confirm the fit of this program's curriculum with the requirements of their chosen state. For more information on teaching licensing and basic skills and content area exams, see the Education Preparation Program web site.

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Thesis, 6 additional graduate credits (30 total credits)

- **TED 760 Methods of Research**, 3 credits
- **TED 799 Thesis**, 3 credits (or a science, technology, or math 799 class at 3 credits)

Oral or written comprehensive exam

Research Paper, 6 additional graduate credits (30 total credits)

- **TED 760 Methods of Research**, 3 credits
- **TED 780 Professional Development Practicum**, 3 credits (or an approved teacher education (TED) science, technology or math, special topics course, 789 or 793)

Oral or written comprehensive exam

Capstone Experience, 10 additional graduate credits (34 total credits)

10 credits of approved graduate coursework
Requirements for Additional ESL License

Individuals who complete the following requirements are eligible to receive an additional Wisconsin ESL teaching license. Those who plan to teach in another state should confirm requirements for licensure with the respective state department.

**Required Courses (36-42 credits)**

- **ENGL 520** Structure of English, 3 credits
- **ENGL 522** Acquisition of Language, 3 credits
- **ENGL 560** Theory and Methodology of TESOL, 3 credits
- **ENGL 573** TESOL Tutoring: Practicum, 3 cr., or TESL 779 Internship, 3 cr.
- **ENGL 620** Pedagogical Grammar, 3 credits (Prerequisite: ENGL 520)
- **ENGL 675** Assessment and Testing, 3 credits
- **TESL 720** Educational Linguistics, 3 credits
- **TESL 767** Teaching ESOL Reading, 3 credits
- **TED 428** Techniques of TESOL, 3 credits
- **TED 475** Student Teaching, 0-6 credits*

*The amount of student teaching required will depend on what type of license is held. Teachers with English or Language Arts licenses would not need additional student teaching, whereas a science teacher would.

For more information on teaching licensing and basic skills and content area exams, see the Education Preparation Program website.

**Program Curriculum**

The following courses are required to complete a teaching license, depending on whether or not you are already a licensed teacher or are pursuing your initial teaching license.

**Foreign Language Competency**

All students must demonstrate that they have studied a single foreign language for two years, which can be two years of high school study, four semesters of university study, or other equivalent.

With the approval of the program director, you may transfer up to nine recent graduate credits of relevant coursework from another institution.

Requirements for Initial TESOL License

Individuals who complete the following requirements are eligible to receive an initial Wisconsin ESL teaching license. Those who plan to teach in another state should confirm requirements for licensure with the respective state department.

**Required Courses (44 cr., including 12 cr. of student teaching)**

- **ENGL 520** Structure of English, 3 credits
- **ENGL 522** Acquisition of Language, 3 credits
- **ENGL 560** Theory and Methodology of TESOL, 3 credits
- **ENGL 573** TESOL Tutoring: Practicum, 3 cr., or TESL 779 Internship, 3 cr.
- **ENGL 620** Pedagogical Grammar, 3 credits (Prerequisite: ENGL 520)
- **ENGL 675** Assessment and Testing, 3 credits
- **TESL 720** Educational Linguistics, 3 credits
- **TESL 767** Teaching ESOL Reading, 3 credits
- **TED 428** Techniques of TESOL, 3 credits
- **TED 475** Student Teaching, 12 credits (one semester)
- **TED 701** Psychology of Teaching and Learning, 3 credits
- **TED 706** Historical, Philosophical and Multicultural Foundations of Education, 3 credits
- **TED 716** Inclusive Education for English Learners and Students with Special Needs, 3 credits

For More Information

Linda Jacobson
Program Manager
(715) 425-3190
Email

Marshall Toman
Program Director
Email

Michael Martin
UWRF Certification Officer
Email
(715) 425-3740

College of Arts and Sciences
College of Education and Professional Studies
Graduate Programs
For more information on teaching licensing and basic skills and content area exams, see the Education Preparation Program website.
Master of Arts in TESOL with Teaching License

Program Curriculum for both Degree and License

The following requirements apply to both an ESL teaching license and a master of arts degree in Teaching English to Speakers of Other Languages (TESOL).

**Foreign Language Competency**

All students must demonstrate that they have studied a single foreign language for two years, which can be two years of high school study, four semesters of university study, or other equivalent.

**Co-requisite Courses for Degree / Required Courses for License, 6 credits**

ENGL 520 Structure of English, 3 credits
ENGL 522 Acquisition of Language, 3 credits

**Required Courses for the Degree and ESL License, 18 credits**

ENGL 560 Theory and Methodology of TESOL, 3 credits
ENGL 620 Pedagogical Grammar, 3 credits
ENGL 675 Assessment and Testing, 3 credits
TESL 720 Educational Linguistics, 3 credits
TESL 765 Language and Culture, 3 credits
TESL 767 Teaching ESOL Reading, 3 credits

**Additional Courses Required for the Degree**

**Required Courses for the Degree**

ENGL 551 Pronunciation in Language Learning and Teaching, 3 credits
TESL 701 Reading and Writing TESOL Research, 3 credits
TESL 763 Words, Meaning and Vocabulary Teaching, 3 credits
TESL 793 Final Research Paper or TESL 799 Thesis, 3 credits

**Required Electives for the Degree**

Choose two, three-credit electives from the following:

ENGL 521 English Language: History and Culture, 3 credits
ENGL 573 Practicum, 3 credits (or TESL 779 Internship), 3 credits
ENGL 650 Non-Native Speakers in the Midwest, 3 credits
TESL 769 Developing Discourse and Pragmatics Teaching Materials, 3 credits
TESL 789 Topics in TESOL, 3 credits

**Courses Required for Additional ESL License**

ENGL 573 Practicum, 3 credits (or TESL 779 Internship), 3 credits
TED 428 Techniques of TESOL, 3 credits
TED 475 Student Teaching, 0-6 credits*

*Teachers with English or Language Arts licenses would not need additional student teaching, whereas a science teacher would.

**Courses Required for Initial ESL License**

ENGL 573 Practicum, 3 credits (or TESL 779 Internship), 3 credits
TED 428 Techniques of TESOL, 3 credits
TED 475 Student Teaching, 12 credits (one semester)
TED 701 Psychology of Teaching and Learning, 3 credits
TED 706 Historical, Philosophical, and Multicultural Foundations of Education, 3 credits
TED 716 Inclusive Education for English Learners and Students with Special Needs, 3 credits

For More Information

Linda Jacobson
Program Manager
715-425-3190
Email

College of Arts and Sciences
College of Education and Professional Studies
Graduate Programs
Master of Arts in TESOL

The following courses are required to complete a Master of Arts degree in Teaching English to Speakers of Other Languages (TESOL).

Foreign Language Competency
All students must demonstrate that they have studied a single foreign language for two years, which can be two years of high school study, four semesters of university study, or other equivalent.

Prerequisite or Co-requisite Courses, 6 credits
ENGL 520 Structure of English, 3 credits
ENGL 522 Acquisition of Language, 3 credits

With the approval of the Program Director, you may transfer up to nine recent graduate credits of relevant coursework from another institution.

Program Core Curriculum, 36 credits

Required Courses (30 credits)
ENGL 551 Pronunciation in Language Learning and Teaching, 3 credits
ENGL 560 Theory and Methodology of TESOL, 3 credits
ENGL 620 Pedagogical Grammar, 3 credits
ENGL 675 Assessment and Testing, 3 credits
TESL 701 Reading and Writing TESOL Research, 3 credits
TESL 720 Educational Linguistics, 3 credits
TESL 763 Words, Meaning and Vocabulary Teaching, 3 credits
TESL 765 Language and Culture, 3 credits
TESL 767 Teaching ESOL Reading, 3 credits

Plus, choose one of the following:
TESL 793 Final Research Paper, 3 credits
TESL 799 Thesis, 3 credits

Directed Electives (6 credits)
Choose two, three-credit courses from the following:
ENGL 521 The English Language: History and Culture, 3 credits
ENGL 573 Practicum (or TESL 779 Internship), 3 credits
ENGL 650 Non-Native Speakers in the Midwest, 3 credits
TESL 769 Developing Discourse and Pragmatics Teaching Materials, 3 credits
TESL 789 Topics in TESOL*, 3 credits

*May be repeated (with different topics).
TESOL Certificate

Program Curriculum for Graduate Certificate in TESOL

A minimum of 12 credits comprising the following courses, unless a substitution is deemed advisable because of previous study.

- ENGL 522 Acquisition of Language (Sp)
- ENGL 560 Theory and Methodology of TESOL (F)
- ENGL 620 Pedagogical Grammar* (Sp)
- TESL 720 Educational Linguistics (F or Sp)

*This course has the prerequisite of the knowledge contained in 520, Structure of English, which may be obtained in a variety of ways. 520 is offered online on an as-needed basis. Alternatively, a candidate for the certificate may already possess sufficient background in the traditional grammar of English, as determined in consultation with the TESOL Graduate Director, to enable the waiving of 520.

The TESOL Certificate requires a minimum of two semester’s study ordinarily, with one or two courses in the fall and two or three offered in the spring. The certificate is available completely face-to-face (f2f) on the UWRF campus or completely online over two years. It can easily be accomplished in one year if a mix of f2f and online courses are taken. If it is begun in the spring semester, it could even be achievable in one (spring) semester if a candidate is prepared and an appropriate course substitution is granted. Each course alternates over two academic years between being taught one year f2f and the next year online.