

SCIENCE DIVISION
2003-2005 CATALOG UPDATE
Changes effective 2004-2005

Agricultural Science

Degree Program Update:

Departmental Honors in Agricultural Science are now available:

- 1) Cumulative GPA of 3.50
- 2) Complete individual research project (as approved/supervised by a faculty member) and present at Truman's Student Research Conference or appropriate professional meeting or submit paper for publication in appropriate journal or research bulletin.
- 3) Achieve 75th percentile or above on the ACAT or other approved senior test for agriculture.
- 4) Approval of a majority of non-abstaining Agricultural Science faculty.

Change to an Existing Course:

AGSC 100 Agriculture becomes:

AGSC 100 Food, Agriculture, and the Environment

Biology

Changes to Existing Courses:

BIOL 304 General Microbiology

The nature of microorganisms with an emphasis on prokaryotes, viruses and fungi. Microscopy, cell structures and functions, metabolism, genetics, host defense, biological diversity and environmental issues will be investigated. Includes laboratory. Prerequisites: BIOL 107 and CHEM 120 are strongly recommended. NOTE: General Honors Course. becomes:

BIOL 304 General Microbiology

The nature of microorganisms with an emphasis on bacteria, viruses and fungi. Microscopy, cell structures and functions, metabolism, genetics, host defense, biological diversity and environmental issues will be investigated. Includes laboratory. Prerequisites: BIOL 107, and CHEM 100 or CHEM 120, or permission from the instructor. NOTE: General Honors Course.

BIOL 316 Entomology, 3 credit hours becomes: BIOL 316 Entomology, 4 credit hours.

BIOL 501 Limnology, 3 credit hours becomes: BIOL 501 Limnology, 4 credit hours.

BIOL 501G Limnology, 3 credit hours becomes: BIOL 501G Limnology, 4 credit hours.

BIOL 504 Herpetology, 3 credit hours becomes: BIOL 504 Herpetology, 4 credit hours.

BIOL 504G Herpetology, 3 credit hours becomes: BIOL 504G Herpetology, 4 credit hours.

BIOL 505 Cytology, 3 credit hours becomes: BIOL 505 Cytology, 4 credit hours.

BIOL 505G Cytology, 3 credit hours becomes: BIOL 505G Cytology, 4 credit hours.

BIOL 509G Comparative Plant Morphology, prerequisite BIOL 313 becomes: BIOL 509G Comparative Plant Morphology, no prerequisite.

BIOL 513 Microbial Genetics, 3 credit hours becomes: BIOL 513 Microbial Genetics, 4 credit hours.

BIOL 513G Microbial Genetics, 3 credit hours becomes: BIOL 513G Microbial Genetics, 4 credit hours.

BIOL 516 Ichthyology, 3 credit hours becomes: BIOL 516 Herpetology, 4 credit hours.
 BIOL 516G Ichthyology, 3 credit hours becomes: BIOL 516G Herpetology, 4 credit hours.

BIOL 517 Mammalogy, 3 credit hours becomes: BIOL 517 Mammalogy, 4 credit hours.
 BIOL 517G Mammalogy, 3 credit hours becomes: BIOL 517G Mammalogy, 4 credit hours.

Chemistry

Degree Program Update:

Liberal Studies Program Requirements32-37

Missouri Statute Requirement1-3

Required Support14-15

MATH 198 Analytic Geometry and Calculus I**5

MATH 263 Analytic Geometry and Calculus II5

PHYS 195 Physics with Calculus I** **OR**5

PHYS 185 College Physics I**4

**May be used to fulfill LSP requirements.

Bachelor of Science Requirements7-8

PHYS 196 Physics with Calculus II **OR**5

PHYS 186 College Physics II4

MATH 264 Analytic Geometry and Calculus III3

MAJOR REQUIREMENTS48

CHEM 120 Chemical Principles I5

CHEM 121 Chemical Principles II with Inorganic
 Chemistry5

CHEM 222 Introduction to Quantitative Analysis4

CHEM 322 Instrumental Analysis4

CHEM 323 Physical Chemistry I3

CHEM 324 Physical Chemistry I Lab1

CHEM 325 Physical Chemistry II3

CHEM 326 Physical Chemistry II Lab1

CHEM 329 Organic Chemistry I3

CHEM 330 Organic Chemistry I Lab*1

CHEM 331 Organic Chemistry II3

CHEM 332 Organic Chemistry II Lab*1

CHEM 421 Biochemistry4

CHEM 475 Inorganic Chemistry4

CHEM 145 Freshman Seminar1

CHEM 245 Sophomore Seminar1

CHEM 345 Junior Seminar1

Capstone Experience:

CHEM 445 Senior Seminar1

*CHEM 333 is equivalent to the combination of CHEM 330
 and CHEM 332.

One advanced chemistry course and a minimum of two credit

hours are required. With approval of advisor, students may select from the following list:

CHEM 422	Advanced Topics in Organic Chemistry	3
CHEM 430	Advanced Physical Chemistry	3
CHEM 431	Advanced Analytical Chemistry	3
CHEM 443	Chemistry Research III	1-3
CHEM 476	Advanced Inorganic Chemistry	3
CHEM 518	Advanced Topics	1-3

Electives to Total124

Changes to Existing Courses:

CHEM 100 and CHEM 120

No more than 5 credit hours will be allowed for the combination of CHEM 100 and CHEM 120. *This policy is no longer in effect; all credit hours from CHEM 100 and CHEM 120 will be accepted.*

CHEM 421 Biochemistry - prerequisites effective Fall 2004: CHEM 331 and (CHEM 332 or CHEM 333))

CHEM 475 Inorganic Chemistry I becomes: CHEM 475 Inorganic Chemistry

CHEM 476 Inorganic Chemistry II (2 hours) becomes: CHEM 476 Advanced Inorganic Chemistry (3 hours).

The following Chemistry courses now have General Honors designation:

CHEM 120 Chemical Principles I*

CHEM 121 Chemical Principles II with Inorganic Chemistry**

CHEM 222 Introduction to Qualitative Analysis***

CHEM 320 Organic Chemistry***

CHEM 322 Instrumental Analysis***

CHEM 323 Physical Chemistry I and CHEM 324 Physical Chemistry I Laboratory***

CHEM 329 Organic Chemistry I and either CHEM 332 Organic Chemistry II Laboratory or CHEM 333 Organic Chemistry Laboratory***

CHEM 421 Biochemistry***

*may be applied toward General Honors only by students who are not required to have chemistry as part of the major program or whose major requires only CHEM 100

**General Honors designation effective Spring 2005

***General Honors designation effective Fall 2004

Eliminated Course:

CHEM 150 Honors Chemistry for Contemporary Living (4 hours)

Physics

Changes to Existing Courses:

PHYS 345 Junior Seminar (prerequisite: PHYS 251) becomes:

PHYS 345 Junior Seminar (prerequisite: previous or concurrent enrollment in PHYS 251)

PHYS 382 Mathematical Physics (prerequisites: PHYS 195 and MATH 263) becomes:

PHYS 382 Mathematical Physics (prerequisites: grade of C or better in PHYS 275, and previous or concurrent enrollment in MATH 365)

PHYS 388 Advanced Laboratory (prerequisite: PHYS 250) becomes:

PHYS 388 Advanced Laboratory (prerequisite: previous or concurrent enrollment in PHYS 250)

Corrections to 2003-2005 Catalog:

p.217: PHYS 490 should be titled “Senior Research I” and is offered in the fall.

p.217: PHYS 491 should be titled “Senior Research II” and is offered in the spring.

p.217: PHYS 518 is offered in the spring.

p.217: PHYS 580 is offered in the fall.

SCED

Change to an Existing Course:

SCED 608G Management of Instruction (2 hours) becomes:

SCED 608G Management of Instruction (3 hours)