CAMPUS MEMORANDUM

College of Natural and Applied Sciences

Temple Hall 142, Ext. 6-5249

January 9, 2012

TO: **CNAS College Council Members**

FROM: **Rich Biagioni, Council Chair**
College of Natural and Applied Sciences

SUBJECT: **CNAS College Council Meeting**
Tuesday, January 17, 2012
Temple Hall 145
3:30 p.m.

AGENDA

I. Call to Order: Rich Biagioni, Chair

II. Announcements

III. Approval of minutes from November 8, 2011

IV. Curricular Proposals ..... **Page**

Biology

Program Change:

Biology (Comprehensive) Bachelor of Science
Updating Chemistry requirements in Microbiology and Biotechnology option 1

Biology BS in Education, Unified Option and Categorical Option
Updating Chemistry requirements in grades 9-12 certification areas 2

Course Change:

BIO 796 Science Internship
Defines number of hours for internship project 3

Chemistry

Course Change:

CHM 796 Science Internship
Defines number of hours for internship project 4

V. New Business/Old Business

VI. Adjourn

kc

cc: Academic Deans & Department Heads
Office of the Provost
Council Chairs
Faculty Senate
Office of the Registrar

Missouri State University
Curricular Proposal Program Change or Deletion

Department Biology **Date** 12-20-2011

Title of Program Affected Biology (comprehensive) Bachelor of Science

Major X Comprehensive Major ___ Option ___ Minor ___ Certificate ___ Certification ___ Academic Rules ___ Other ___

Present Catalog Description (Cut and paste from web catalog or use most recent description.)	**Revised Catalog Description** (Cut and paste description again, strikethrough all deletions, and insert and bold new information.)
See attachment 1	*See attachment 1*

What is changing? Check all boxes that apply.

___ Title change
___ Course changes of under 18 hours
___ Course changes of 18 hours or more
___ From option to program (major)
___ From program (major) to option
___ Program or option deletion
_X_ Other Update chemistry course numbers and clarify chemistry options

REASON FOR PROPOSED CHANGE

When the Chemistry Department split CHM 175(2) into CHM 161(1) and CHM 171(1), CHM 175 was replaced with CHM 171 in the catalog, but CHM 161 was not added. The description of the chemistry course requirements for the Microbiology and Biotechnology Option was confusing to students, so the wording has been clarified.

COMPLETE NEW CATALOG INFORMATION (Typed)

See Attachment 2

DEPARTMENT: Route according to ART VI, SEC 3B(1-4) of Bylaws of the Faculty Senate. Forward three typed, originally signed forms to one of the following (please check all that apply and send to first council/committee marked).
If the program needs to go through more than one committee/council, forward one additional form for each additional council/ committee marked.

_____ **College Council** (Send all undergraduate program changes through College Council as first step before forwarding either to PEC, CGEIP, or directly to Faculty Senate)

_____ **Professional Education Committee** Specialist degrees) (Considers all program changes affecting BS and MS in Education and Educational

_____ **Committee on General Education and Intercollegiate Programs** (Considers all general education and multi-college program changes)

_____ **Graduate Council** (Considers all graduate-level program changes)

Signature _____ **Date** 12-20-11
Department Head

(Routing on Reverse Side)

Attachment 1

Curricular Proposal – Program Change
Biology, BS, comprehensive 12/20/11

Present Catalog Description (Cut and paste from web catalog or use most recent description.)	**Revised Catalog Description** (Cut and paste description again, strikethrough all deletions, and insert and bold new information.)
A. General Education Requirements - see General Education Program and Requirements section of catalog B. Major Requirements (37-46 hours) 1. BIO 121(4), 122(4), 235(4), 494(1), 550(3) 2. PHY 123(4) and 124(4) or PHY 203(5) and 204(5) 3. MTH 138(5) or 181(3), or eligibility for MTH 261 on mathematics placement test 4. BIO 310(5) or 320(4) or 361(4) or 544(4); consult options below before selecting course 5. CHM 105(5) or 160(4); consult options below before selecting course 6. CHM 200(5) or 302(5) or 342(5); consult options below before selecting course 7. Complete requirements in one of the following options*: Note: With approval of advisor, up to 3 hours of the following can be substituted for one of the BIO courses listed in any option: BIO 300, 399, 499, or 597. a. **Environmental Biology and Evolution** (33-38 hours) 1. Required courses: BIO 369(4), 515(3) 2. Complete courses in biodiversity and evolution totaling at least 3 hours from the following: BIO 334(3), 339(2), 370(4), 371(3), 380(5), 530(3), 571(4), 573(3), 574(2), 575(3), 576(3), 577(3); the following courses taught during the summer at the Gulf Coast Research Laboratory in Ocean Springs, Mississippi: BIO 534(2), 535(1), 555(3), 556(3), 587(3), 588(3) 3. Complete courses in population biology totaling at least 3 hours from the following: BIO 436(4), 532(3), 540(4), 560(3), 563(3), 567(4), 578(4), 584(3), 589(3); the following courses taught during the summer at the Gulf Coast Research Laboratory in Ocean Springs, Mississippi: BIO 557(2), 558(2) 4. Complete courses in community/ecosystem biology totaling at least 3 hours from the following: BIO 373(3), 485(1-3), 508(3), 533(3), 539(2), 562(4), 579(4); the following courses taught during the summer at the Gulf Coast Research Laboratory in Ocean Springs, Mississippi: BIO 537(2), 538(2), 565(3), 566(2) 5. Students must take at least one biology course with a substantial field component. A course used to satisfy this requirement also may be counted toward the biodiversity, population biology, and community/ecosystem biology concentration areas described above. Complete one of the following: BIO 334(3), 339(2), 370(4), 436(4), 527(1-4), 562(3), 574(2), 575(3), 576(3), 577(3), any biology course taught at the Gulf Coast Research Laboratory, any biology course taught at the Bull Shoals Field station or another field station (with the approval of your advisor) 6. Complete 0-7 hours of elective BIO courses at	A. General Education Requirements - see General Education Program and Requirements section of catalog B. Major Requirements (37-46 hours) 1. BIO 121(4), 122(4), 235(4), 494(1), 550(3) 2. PHY 123(4) and 124(4) or PHY 203(5) and 204(5) 3. MTH 138(5) or 181(3), or eligibility for MTH 261 on mathematics placement test 4. BIO 310(5) or 320(4) or 361(4) or 544(4); consult options below before selecting course 5. CHM 105(5) or 160(4) **and 161(1)**; consult options below before selecting course 6. CHM 200(5) or 302(5) or 342(5); consult options below before selecting course 7. Complete requirements in one of the following options*: Note: With approval of advisor, up to 3 hours of the following can be substituted for one of the BIO courses listed in any option: BIO 300, 399, 499, or 597. a. **Environmental Biology and Evolution** (33-38 hours) 1. Required courses: BIO 369(4), 515(3) 2. Complete courses in biodiversity and evolution totaling at least 3 hours from the following: BIO 334(3), 339(2), 370(4), 371(3), 380(5), 530(3), 571(4), 573(3), 574(2), 575(3), 576(3), 577(3); the following courses taught during the summer at the Gulf Coast Research Laboratory in Ocean Springs, Mississippi: BIO 534(2), 535(1), 555(3), 556(3), 587(3), 588(3) 3. Complete courses in population biology totaling at least 3 hours from the following: BIO 436(4), 532(3), 540(4), 560(3), 563(3), 567(4), 578(4), 584(3), 589(3); the following courses taught during the summer at the Gulf Coast Research Laboratory in Ocean Springs, Mississippi: BIO 557(2), 558(2) 4. Complete courses in community/ecosystem biology totaling at least 3 hours from the following: BIO 373(3), 485(1-3), 508(3), 533(3), 539(2), 562(4), 579(4); the following courses taught during the summer at the Gulf Coast Research Laboratory in Ocean Springs, Mississippi: BIO 537(2), 538(2), 565(3), 566(2) 5. Students must take at least one biology course with a substantial field component. A course used to satisfy this requirement also may be counted toward the biodiversity, population biology, and community/ecosystem biology concentration areas described above. Complete one of the following: BIO 334(3), 339(2), 370(4), 436(4), 527(1-4), 562(3), 574(2), 575(3), 576(3), 577(3), any biology course taught at the Gulf Coast Research Laboratory, any biology course taught at the Bull Shoals Field station or another field station (with the approval of your advisor) 6. Complete 0-7 hours of elective BIO courses at

the level of 300 or above to total a minimum of 43 hours in biology

7. Complete at least one of the following related requirements in Mathematics, Statistics, or Computer programming: MTH 261(5) or 287(3) or 546(3) or 547(3) or CSC 125(4) or CSC 131(4) or PSY 527(3)
8. Related requirements in Chemistry: CHM 160(4), 170(3), 171(1)
9. Complete one of the following related science courses: AGN 215(3), ANT 375(3); CHM 260(3) or 460(3); GLG 171(3), GRY 351(3)
10. Complete one of the following related social science courses: ECO 540(3), LAW 537(3), PHI 302(3), PLS 555(3), PSY 379(3)

b. **Microbiology and Biotechnology** (33-42 hours)

1. Required courses: BIO 310(5), 320(4)
2. Complete 21 additional hours in BIO courses with a minimum of 18 hours from the following: BIO 355(4), 508(3), 511(4), 512(3), 515(3), 517(4), 518(2), 520(3), 530(3), 540(4); BMS 524(3) may be substituted for one of these courses; CHM 302(5) or 502(4) or 505(4) may be substituted for one of these courses
3. Related requirements in Chemistry: CHM 160(4), 170(3), 171(1); CHM 200(5) or 342(5) and 343(5) or 344(3); CHM 352(3) or 452(3) and CHM 552(3)

c. **Wildlife Biology** (30-47 hours)

1. Required courses: BIO 320(4) or 361(4), 369(4)
2. Complete two courses in plant biology from: BIO 334(3), 339(2), 530(3), 544(4)
3. Complete three courses in animal biology from: BIO 370(4), 371(3), 380(5), 571(4), 573(3), 574(2), 575(3), 576(3), 577(3)
4. Complete a minimum of 5 hours in management from: BIO 373(3), 485(1-3), 532(3), 562(4), 589(3)
5. Complete two courses in ecology and evolution from: BIO 436(4), 515(3), 539(2), 563(3), 567(4), 578(4), 579(4), 584(3)
6. Complete one course in human dimensions from the following: AGN 335(3), CRM 210(3), ECO 540(3), GRY 108(3), GRY 351(2), PHI 302(3), PLS 555(3), LAW 537(3)
7. Complete one course in earth/environmental science: AGN 215(3), CHM 260(3), GLG 110(4), GRY 142(4)

C. General Baccalaureate Degree Requirements - see General Baccalaureate Degree Requirements section of catalog

the level of 300 or above to total a minimum of 43 hours in biology

7. Complete at least one of the following related requirements in Mathematics, Statistics, or Computer programming: MTH 261(5) or 287(3) or 546(3) or 547(3) or CSC 125(4) or CSC 131(4) or PSY 527(3)
8. Related requirements in Chemistry: CHM 160(4), **161(1),** 170(3), 171(1)
9. Complete one of the following related science courses: AGN 215(3), ANT 375(3); CHM 260(3) or 460(3); GLG 171(3), GRY 351(3)
10. Complete one of the following related social science courses: ECO 540(3), LAW 537(3), PHI 302(3), PLS 555(3), PSY 379(3)

b. **Microbiology and Biotechnology** (33-42 hours)

1. Required courses: BIO 310(5), 320(4)
2. Complete 21 additional hours in BIO courses with a minimum of 18 hours from the following: BIO 355(4), 508(3), 511(4), 512(3), 515(3), 517(4), 518(2), 520(3), 530(3), 540(4); BMS 524(3) may be substituted for one of these courses; CHM 302(5) or 502(4) or 505(4) may be substituted for one of these courses
3. Related requirements in Chemistry: CHM 160(4), **161(1),** 170(3), 171(1); CHM 200(5), or **CHM** 342(5) and 343(5), or **CHM 342(5) and** 344(3); CHM 352(3), or **CHM** 452(3) and ~~CHM~~ 552(3)

c. **Wildlife Biology** (30-47 hours)

1. Required courses: BIO 320(4) or 361(4), 369(4)
2. Complete two courses in plant biology from: BIO 334(3), 339(2), 530(3), 544(4)
3. Complete three courses in animal biology from: BIO 370(4), 371(3), 380(5), 571(4), 573(3), 574(2), 575(3), 576(3), 577(3)
4. Complete a minimum of 5 hours in management from: BIO 373(3), 485(1-3), 532(3), 562(4), 589(3)
5. Complete two courses in ecology and evolution from: BIO 436(4), 515(3), 539(2), 563(3), 567(4), 578(4), 579(4), 584(3)
6. Complete one course in human dimensions from the following: AGN 335(3), CRM 210(3), ECO 540(3), GRY 108(3), GRY 351(2), PHI 302(3), PLS 555(3), LAW 537(3)
7. Complete one course in earth/environmental science: AGN 215(3), CHM 260(3), GLG 110(4), GRY 142(4)

C. General Baccalaureate Degree Requirements - see General Baccalaureate Degree Requirements section of catalog

Attachment 2
Curricular Proposal – Program Change
Biology, BS, comprehensive 12/20/11

COMPLETE CATALOG INFORMATIION (typed):

Biology (Comprehensive)

Bachelor of Science

A. General Education Requirements - see General Education Program and Requirements section of catalog
B. Major Requirements (37-46 hours)
   1. BIO 121(4), 122(4), 235(4), 494(1), 550(3)
   2. PHY 123(4) and 124(4) or PHY 203(5) and 204(5)
   3. MTH 138(5) or 181(3), or eligibility for MTH 261 on mathematics placement test
   4. BIO 310(5) or 320(4) or 361(4) or 544(4); consult options below before selecting course
   5. CHM 105(5) or 160(4) and 161(1); consult options below before selecting course
   6. CHM 200(5) or 302(5) or 342(5); consult options below before selecting course
   7. Complete requirements in one of the following options*: Note: With approval of advisor, up to 3 hours of the following can be substituted for one of the BIO courses listed in any option: BIO 300, 399, 499, or 597.
      a. **Environmental Biology and Evolution** (33-38 hours)
         1. Required courses: BIO 369(4), 515(3)
         2. Complete courses in biodiversity and evolution totaling at least 3 hours from the following: BIO 334(3), 339(2), 370(4), 371(3), 380(5), 530(3), 571(4), 573(3), 574(2), 575(3), 576(3), 577(3); the following courses taught during the summer at the Gulf Coast Research Laboratory in Ocean Springs, Mississippi: BIO 534(2), 535(1), 555(3), 556(3), 587(3), 588(3)
         3. Complete courses in population biology totaling at least 3 hours from the following: BIO 436(4), 532(3), 540(4), 560(3), 563(3), 567(4), 578(4), 584(3), 589(3); the following courses taught during the summer at the Gulf Coast Research Laboratory in Ocean Springs, Mississippi: BIO 557(2), 558(2)
         4. Complete courses in community/ecosystem biology totaling at least 3 hours from the following: BIO 373(3), 485(1-3), 508(3), 533(3), 539(2), 562(4), 579(4); the following courses taught during the summer at the Gulf Coast Research Laboratory in Ocean Springs, Mississippi: BIO 537(2), 538(2), 565(3), 566(2)
         5. Students must take at least one biology course with a substantial field component. A course used to satisfy this requirement also may be counted toward the biodiversity, population biology, and community/ecosystem biology concentration areas described above. Complete one of the following: BIO 334(3), 339(2), 370(4), 436(4), 527(1-4), 562(3), 574(2), 575(3), 576(3), 577(3), any biology course taught at the Gulf Coast Research Laboratory, any biology course taught at the Bull Shoals Field station or another field station (with the approval of your advisor)
         6. Complete 0-7 hours of elective BIO courses at the level of 300 or above to total a minimum of 43 hours in biology
         7. Complete at least one of the following related requirements in Mathematics, Statistics, or Computer programming: MTH 261(5) or 287(3) or 546(3) or 547(3) or CSC 125(4) or CSC 131(4) or PSY 527(3)
         8. Related requirements in Chemistry: CHM 160(4), 161(1), 170(3), 171(1)
         9. Complete one of the following related science courses: AGN 215(3), ANT 375(3); CHM 260(3) or 460(3); GLG 171(3), GRY 351(3)
         10. Complete one of the following related social science courses: ECO 540(3), LAW 537(3), PHI 302(3), PLS 555(3), PSY 379(3)
      b. **Microbiology and Biotechnology** (33-42 hours)
         1. Required courses: BIO 310(5), 320(4)
         2. Complete 21 additional hours in BIO courses with a minimum of 18 hours from the following: BIO 355(4), 508(3), 511(4), 512(3), 515(3), 517(4), 518(2), 520(3), 530(3), 540(4); BMS 524(3) may be substituted for one of these courses; CHM 302(5) or 502(4) or 505(4) may be substituted for one of these courses
         3. Related requirements in Chemistry: CHM 160(4), 161(1), 170(3), 171(1); CHM 200(5), or CHM 342(5) and 343(5), or CHM 342(5) and 344(3); CHM 352(3), or CHM 452(3) and 552(3)
      c. **Wildlife Biology** (30-47 hours)
         1. Required courses: BIO 320(4) or 361(4), 369(4)
         2. Complete two courses in plant biology from: BIO 334(3), 339(2), 530(3), 544(4)
         3. Complete three courses in animal biology from: BIO 370(4), 371(3), 380(5), 571(4), 573(3), 574(2), 575(3), 576(3), 577(3)
         4. Complete a minimum of 5 hours in management from: BIO 373(3), 485(1-3), 532(3), 562(4), 589(3)
         5. Complete two courses in ecology and evolution from: BIO 436(4), 515(3), 539(2), 563(3), 567(4), 578(4), 579(4), 584(3)
         6. Complete one course in human dimensions from the following: AGN 335(3), CRM 210(3), ECO 540(3), GRY 108(3), GRY 351(2), PHI 302(3), PLS 555(3), LAW 537(3)
         7. Complete one course in earth/environmental science: AGN 215(3), CHM 260(3), GLG 110(4), GRY 142(4)
C. General Baccalaureate Degree Requirements - see General Baccalaureate Degree Requirements section of catalog

Missouri State University
Curricular Proposal Program Change or Deletion

Department Biology **Date** December 6, 2011

Title of Program Affected BS in Education, Unified Option and Categorical Option

Major X Comprehensive Major ___ Option ___ Minor ___ Certificate ___ Certification ___ Academic Rules ___ Other ___

Present Catalog Description (Cut and paste from web catalog or use most recent description.)	**Revised Catalog Description** (Cut and paste description again, strikethrough all deletions, and insert and bold new information.)
See Attachment A	See Attachment B

What is changing? Check all boxes that apply.

___ Title change
_X_ Course changes of under 18 hours
___ Course changes of 18 hours or more
___ From option to program (major)
___ From program (major) to option
___ Program or option deletion
___ Other ___

REASON FOR PROPOSED CHANGE

The Chemistry Department deleted CHM 175 (2 hours) and added CHM 161 (1 hour) and CHM 171 (1 hour) as the required laboratory components for CHM 160 and CHM 170.

COMPLETE NEW CATALOG INFORMATION (Typed)

See Attachment C

Total Hours *No change*

DEPARTMENT: Route according to ART VI, SEC 3B(1-4) of Bylaws of the Faculty Senate. Forward three typed, originally signed forms to one of the following (please check all that apply and send to first council/committee marked). If the program needs to go through more than one committee/council, forward one additional form for each additional council/ committee marked.

_X_ **College Council**	(Send all undergraduate program changes through College Council as first step before forwarding either to PEC, CGEIP, or directly to Faculty Senate)
_X_ **Professional Education Committee**	(Considers all program changes affecting BS and MS in Education and Educational Specialist degrees)
___ **Committee on General Education and Intercollegiate Programs**	(Considers all general education and multi-college program changes)
___ **Graduate Council**	(Considers all graduate-level program changes)

Signature _____ **Date** 12-20-11
Department Head

(Routing on Reverse Side)

Attachment A

Biology Education

Bachelor of Science in Education
(Certifiable grades 9-12)

A. General Education Requirements - see General Education Program and Requirements section of catalog
The following required courses can be used to meet both General Education and Major Requirements: BIO 121(4); MTH 135(3) or 181(3) or 138(5) or 261(5) or 287(3); CHM 105(5) or 160(4) or GLG 110(4) or GRY 135(4) or GLG 171(4) or PHY 100(4) or PHY 123(4)

B. Major Requirements
   1. Core (32 hours): BIO 121(4), 122(4), 215(2), 235(4), 310(5), 361(4), 369(4), 515(3); Select elective courses in biology, 300 level or above, to total a minimum of 32 hours.
   2. Related Requirements (6-9 hours): SCI 505(3); MTH 135(3) and MTH 181(3), or MTH 138(5) or 261(5) or 287(3); *Note: MTH 130 cannot be substituted for MTH 135*
   3. Complete the requirements in one of the following grades 9-12 certification areas:
      a. **Categorical Science** (13-21 hours): CHM 105(5), or CHM 160(4) and 170(3) and 171(1); PHY 100(4), or PHY 123(4) and 124(4); GLG 110(4) or GRY 135(4) or GLG 171(4)
      b. **Unified Science** (25 hours): CHM 160(4), 170(3), 171(1); PHY 123(4), 124(4); GLG 110(4); GRY 135(4)

C. Professional Education Courses (37 hours): SCI 214(1), 314(3), 414(3), 493(6), 494(6); and the Professional Education Required Core and Competencies - see Teacher Certification, Teacher Education Program and Secondary Education Requirements section of catalog

D. General Baccalaureate Degree Requirements - see General Baccalaureate Degree Requirements section of catalog

E. In order to meet Missouri state teacher certification requirements, candidates for the Bachelor of Science in Education degree are required to meet the following grade point average requirements: at least a 2.50 GPA on all coursework attempted at all colleges attended; at least a 2.50 GPA in the certificate subject area (major field of study) which includes all courses listed under B; at least a 2.50 GPA in any additional certificate subject area; at least a 2.50 GPA in the professional education courses; and no grade lower than a "C" in all professional education courses. All GPA requirements include both Missouri State and transfer grades.

Health Education Certification (certifiable grades 9-12, added endorsement only): Students who complete the Bachelor of Science in Education degree with a major in Biology Education may receive Missouri state certification in Health Education grades 9-12 by completing the following courses: BMS 307(4) or PED 250(3), BMS 308(4) or PED 252(3), or equivalents; CFD 163(3); BMS 130(3) or 240(3); PED 253(2), 256(2), 257(2), 358(3); PSY 101(3); SWK 330(3); plus additional hours of electives in health-related courses, in consultation with their advisor, to bring total to 30 hours. In order to meet Missouri state teacher certification requirements, student must have at least a 2.50 GPA in the certificate subject area which includes all courses listed above.

Attachment B

Biology Education

Bachelor of Science in Education
(Certifiable grades 9-12)

F. General Education Requirements - see General Education Program and Requirements section of catalog
The following required courses can be used to meet both General Education and Major Requirements: BIO 121(4); MTH 135(3) or 181(3) or 138(5) or 261(5) or 287(3); CHM 105(5) or 160(4) or GLG 110(4) or GRY 135(4) or GLG 171(4) or PHY 100(4) or PHY 123(4)

G. Major Requirements
1. Core (32 hours): BIO 121(4), 122(4), 215(2), 235(4), 310(5), 361(4), 369(4), 515(3); Select elective courses in biology, 300 level or above, to total a minimum of 32 hours.
2. Related Requirements (6-9 hours): SCI 505(3); MTH 135(3) and MTH 181(3), or MTH 138(5) or 261(5) or 287(3); *Note: MTH 130 cannot be substituted for MTH 135*
3. Complete the requirements in one of the following grades 9-12 certification areas:
    a. **Categorical Science** (13-21 hours): CHM 105(5), or CHM 160(4) , 161(1), ~~and~~ 170(3) and 171(1); PHY 100(4), or PHY 123(4) and 124(4); GLG 110(4) or GRY 135(4) or GLG 171(4)
    b. **Unified Science** (25 hours): CHM 160(4), 161(1), 170(3), 171(1); PHY 123(4), 124(4); GLG 110(4); GRY 135(4)

H. Professional Education Courses (37 hours): SCI 214(1), 314(3), 414(3), 493(6), 494(6); and the Professional Education Required Core and Competencies - see Teacher Certification, Teacher Education Program and Secondary Education Requirements section of catalog

I. General Baccalaureate Degree Requirements - see General Baccalaureate Degree Requirements section of catalog

J. In order to meet Missouri state teacher certification requirements, candidates for the Bachelor of Science in Education degree are required to meet the following grade point average requirements: at least a 2.50 GPA on all coursework attempted at all colleges attended; at least a 2.50 GPA in the certificate subject area (major field of study) which includes all courses listed under B; at least a 2.50 GPA in any additional certificate subject area; at least a 2.50 GPA in the professional education courses; and no grade lower than a "C" in all professional education courses. All GPA requirements include both Missouri State and transfer grades.

Health Education Certification (certifiable grades 9-12, added endorsement only): Students who complete the Bachelor of Science in Education degree with a major in Biology Education may receive Missouri state certification in Health Education grades 9-12 by completing the following courses: BMS 307(4) or PED 250(3), BMS 308(4) or PED 252(3), or equivalents; CFD 163(3); BMS 130(3) or 240(3); PED 253(2), 256(2), 257(2), 358(3); PSY 101(3); SWK 330(3); plus additional hours of electives in health-related courses, in consultation with their advisor, to bring total to 30 hours. In order to meet Missouri state teacher certification requirements, student must have at least a 2.50 GPA in the certificate subject area which includes all courses listed above.

Attachment C

Biology Education

Bachelor of Science in Education
(Certifiable grades 9-12)

K. General Education Requirements - see General Education Program and Requirements section of catalog
The following required courses can be used to meet both General Education and Major Requirements: BIO 121(4); MTH 135(3) or 181(3) or 138(5) or 261(5) or 287(3); CHM 105(5) or 160(4) or GLG 110(4) or GRY 135(4) or GLG 171(4) or PHY 100(4) or PHY 123(4)

L. Major Requirements
1. Core (32 hours): BIO 121(4), 122(4), 215(2), 235(4), 310(5), 361(4), 369(4), 515(3); Select elective courses in biology, 300 level or above, to total a minimum of 32 hours.
2. Related Requirements (6-9 hours): SCI 505(3); MTH 135(3) and MTH 181(3), or MTH 138(5) or 261(5) or 287(3); *Note: MTH 130 cannot be substituted for MTH 135*
3. Complete the requirements in one of the following grades 9-12 certification areas:
    a. **Categorical Science** (13-21 hours): CHM 105(5), or CHM 160(4) , 161(1), 170(3) and 171(1); PHY 100(4), or PHY 123(4) and 124(4); GLG 110(4) or GRY 135(4) or GLG 171(4)
    b. **Unified Science** (25 hours): CHM 160(4), 161(1), 170(3), 171(1); PHY 123(4), 124(4); GLG 110(4); GRY 135(4)

M. Professional Education Courses (37 hours): SCI 214(1), 314(3), 414(3), 493(6), 494(6); and the Professional Education Required Core and Competencies - see Teacher Certification, Teacher Education Program and Secondary Education Requirements section of catalog

N. General Baccalaureate Degree Requirements - see General Baccalaureate Degree Requirements section of catalog

O. In order to meet Missouri state teacher certification requirements, candidates for the Bachelor of Science in Education degree are required to meet the following grade point average requirements: at least a 2.50 GPA on all coursework attempted at all colleges attended; at least a 2.50 GPA in the certificate subject area (major field of study) which includes all courses listed under B; at least a 2.50 GPA in any additional certificate subject area; at least a 2.50 GPA in the professional education courses; and no grade lower than a "C" in all professional education courses. All GPA requirements include both Missouri State and transfer grades.

Health Education Certification (certifiable grades 9-12, added endorsement only): Students who complete the Bachelor of Science in Education degree with a major in Biology Education may receive Missouri state certification in Health Education grades 9-12 by completing the following courses: BMS 307(4) or PED 250(3), BMS 308(4) or PED 252(3), or equivalents; CFD 163(3); BMS 130(3) or 240(3); PED 253(2), 256(2), 257(2), 358(3); PSY 101(3); SWK 330(3); plus additional hours of electives in health-related courses, in consultation with their advisor, to bring total to 30 hours. In order to meet Missouri state teacher certification requirements, student must have at least a 2.50 GPA in the certificate subject area which includes all courses listed above.

Missouri State University
Curricular Proposal Course Change or Deletion

Department Biology Date 25 October 2011

Check one: This is a change to __X__ an existing COURSE

____ an existing REGULAR (i.e. permanent) SECTION of a variable content course

Present Catalog Description (Cut and paste from web catalog or use most recent description.)	Revised Catalog Description (Cut and paste description again, strikethrough all deletions, and insert and bold new information.)
BIO 796 Science Internship Completion of an internship project (480 hours) at a discipline-related business, nonprofit organization, or government agency, approved and supervised by both the departmental and internship advisors. Includes a formal report in the appropriate professional format, and an oral presentation at an approved venue. Graded Pass/Not Pass only. No more than 6 hours may count toward a master's degree. 1-6 F,S,Su	BIO 796 Science Internship Completion of an internship project (**80 hrs/credit hour**) at a discipline-related business, nonprofit organization, or government agency, approved and supervised by both the departmental and internship advisors. Includes a formal report in the appropriate professional format, and an oral presentation at an approved venue. Graded Pass/Not Pass only. No more than 6 hours may count toward a master's degree. 1-6 F,S,Su

What is changing? Check all boxes that apply.

☐Course Deletion ☐Course Code ☐Course Number ☐Title ☐Prerequisite
☐Credit Hours/Contact Hours ☐Periodicity **XXDescription**

Reason for Proposed Change or Deletion

The change is to avoid confusion by defining the number of hours for the internship project per credit hour rather than for the total for 6 credit hours.

How Did You Determine the Need For This Change or Deletion?

This decision was based on a vote of faculty following discussion of this issue at a departmental meeting.

COMPLETE NEW CATALOG INFORMATION (typed)

BIO 796 Science Internship
Completion of an internship project (80 hrs/credit hour) at a discipline-related business, nonprofit organization, or government agency, approved and supervised by both the departmental and internship advisors. Includes a formal report in the appropriate professional format, and an oral presentation at an approved venue. Graded Pass/Not Pass only. No more than 6 hours may count toward a master's degree. 1-6 F,S,Su

____ Check if this is a **non-substantive** change. Distribution for non-substantive changes of 100- through 500-level courses: two originally-signed copies to Faculty Senate; 600- through 900-level courses: three originally-signed copies to Graduate Council. Graduate Council will give two copies to Faculty Senate after approval.

Substantive Change: Department routes according to ART VI, SEC 3B(1-4) of Bylaws of the Faculty. Forward three originally signed forms to one of the following (please check all that apply and send to first council/committee marked). If proposal needs to go through more than one council/committee, forward one additional form for each additional council/committee marked. See Senate Action 11-93/94 for definitions of substantive/non-substantive changes.

__X__ **College Council** (All substantive course changes numbered 100-599 must go through College Council first. After approval, College Council will forward appropriate number of copies to the next committee/council or directly to the Faculty Senate if no further committee approval is needed. The last level of committee/council will forward two originally signed copies to the Faculty Senate.)

__X__ **Professional Education Committee** (Considers all substantive course changes for Professional Education courses and Teaching Methods courses.)

____ **Committee on General Education and Intercollegiate Programs** (Considers all substantive course changes for General Education and Intercollegiate Program proposals.)

__X__ **Graduate Council** (Considers all 600-900 level course changes.)

Signature [signature] Date 12-20-11
Department Head

(Routing on Reverse Side)

Missouri State University
Curricular Proposal Course Change or Deletion

Department Chemistry **Date** 10/31/2011

Check one: This is a change to _X___an existing COURSE
____ an existing REGULAR (i.e. permanent) SECTION of a variable content course

Present Catalog Description (Cut and paste from web catalog or use most recent description.)	**Revised Catalog Description** (Cut and paste description again, strikethrough all deletions, and insert and bold new information.)
CHM 796 Science Internship Completion of an internship project (480 hours) at a discipline-related business, nonprofit organization, or government agency, approved and supervised by both the departmental and internship advisors. Includes a formal report in the appropriate professional format, and an oral presentation at an approved venue. Graded Pass/Not Pass only. No more than 6 hours may count toward a master's degree. 1-6 F,S,Su	**CHM 796 Science Internship** Completion of an internship project ~~(480 hours)~~ **(80 hrs/credit hour)** at a discipline-related business, nonprofit organization, or government agency, approved and supervised by both the departmental and internship advisors. Includes a formal report in the appropriate professional format, and an oral presentation at an approved venue. Graded Pass/Not Pass only. No more than 6 hours may count toward a master's degree. 1-6 F,S,Su

What is changing? Check all boxes that apply.

Course Deletion Course Code Course Number Title Prerequisite
Credit Hours/Contact Hours Periodicity X Description

Reason for Proposed Change or Deletion
The change is to avoid confusion by defining the number of hours for the internship project per credit hour rather than for the total for 6 credit hours.

How Did You Determine the Need For This Change or Deletion?
This decision was based on a vote of faculty following discussion of this issue at a departmental meeting.

COMPLETE NEW CATALOG INFORMATION (typed)

CHM 796 Science Internship Completion of an internship project (80 hrs/credit hour) at a discipline-related business, nonprofit organization, or government agency, approved and supervised by both the departmental and internship advisors. Includes a formal report in the appropriate professional format, and an oral presentation at an approved venue. Graded Pass/Not Pass only. No more than 6 hours may count toward a master's degree. 1-6 F,S,Su

____ Check if this is a **non-substantive** change. Distribution for non-substantive changes of 100- through 500-level courses: two originally-signed copies to Faculty Senate; 600- through 900-level courses: three originally-signed copies to Graduate Council. Graduate Council will give two copies to Faculty Senate after approval.

Substantive Change: Department routes according to ART VI, SEC 3B(1-4) of Bylaws of the Faculty. Forward three originally signed forms to one of the following (please check all that apply and send to first council/committee marked). If proposal needs to go through more than one council/committee, forward one additional form for each additional council/committee marked. See Senate Action 11-93/94 for definitions of substantive/non-substantive changes.

____ **College Council**	(All substantive course changes numbered 100-599 must go through College Council first. After approval, College Council will forward appropriate number of copies to the next committee/council or directly to the Faculty Senate if no further committee approval is needed. The last level of committee/council will forward two originally signed copies to the Faculty Senate.)
____**Professional Education Committee**	(Considers all substantive course changes for Professional Education courses and Teaching Methods courses.)
____**Committee on General Education and Intercollegiate Programs**	(Considers all substantive course changes for General Education and Intercollegiate Program proposals.)
__X__**Graduate Council**	(Considers all 600-900 level course changes.)

Signature _____ **Date** 1/3/12
Department Head

(Routing on Reverse Side)