

UNIVERSITY CURRICULUM COMMITTEE
January 16, 2007
3:00 p.m. – University Union, Havasupai A/B

Agenda

OLD BUSINESS

I. MINUTES OF THE November 28, 2006 MEETING

NEW BUSINESS

I. CONSENT ITEMS

A. COLLEGE OF SOCIAL AND BEHAVIORAL SCIENCES

- | | |
|--|---|
| 1. EMF 251 – Electronic Media Staff Workshop 1 | Course Change – grading option, requisites, description |
| 2. EMF 252 – Electronic Media Mgmt Workshop 2 | Course Change- grading option, requisites |
| 3. JLS 208 – Fieldwork Experience | Course Change – credits |
| 4. JLS 230 – Humor Writing | Course Change – offering status |
| 5. POS 159 – Nature and Politics | Course Deletion |
| 6. POS 428 – Topics in Public Administration | Course Change – prerequisite |
| 7. VC 329 – Typographics | Course Change – prerequisite |
| 8. VC 333 – Graphic Design | Course Change – prerequisite |
-

B. CONSORTIUM OF PROFESSIONAL SCHOOLS

- | | |
|---------------------------|-------------------------------|
| 1. HS 305W, 307, 333, 490 | Course Change – prerequisites |
|---------------------------|-------------------------------|
-

C. Diversity -

FOR 270 for US Ethnic Diversity- Fall '06

D. COLLEGE OF ENGINEERING AND NATURAL SCIENCES

- | | |
|---|---|
| 1. EGR 286 – Engineering Design: The Process | Course Change – description, requisites |
| 2. CENE 180 – Computer Aided Drafting | Course Change - description |
| 3. CENE 251 – Applied Mechanics Statics | Course Change - description, requisites |
| 4. CENE 270 – Plane Surveying | Course Change – title, description |
| 5. CENE 280 – Environ. Engineering Fundamentals | Course Change – corequisite |
| 6. CENE 330 – Air Quality Engineering | Course Change – description |
| 7. CENE 332 – Solid and Hazardous Waste Mgmt. | Course Change- description, prerequisite |
| 8. CENE 333 – Applied Hydraulics | Course Change – description, prerequisite |
| 9. CENE 333L – Applied Hydraulics Lab | Course Change – description |
| 10. CENE 376 – Structural Analysis I | Course Change- description |
| 11. CENE 386W –Engineering Design: The Methods | Course Change – description |
| 12. CENE 418 – Highway Engineering | Course Change – description |
| 13. CENE 420 – Traffic Study and Signal | Course Change – description, prerequisite |
| 14. CENE 430 – Air Pollution Controls Design | Course Change - prerequisite |
| 15. CENE 433 – Hydrology and Flood Control | Course Change- description, prerequisite |
| 16. CENE 434 –Water & Waste-Water Units Design | Course Change – description |
| 17. CENE 436 – Structural Steel Design | Course Change – description |
| 18. CENE 437 – Wood Building Design | Course Change – description |
| 19. CENE 438 – Reinforced Concrete Design | Course Change – description |
| 20. CENE 476 – Egr Design Porc Lab | Course Change – title, description |
| 21. CENE 486C – Engineering Design | Course Change – prerequisite |
| 22. STA 473C – Intro to Mathematical Statistics I | Course Change - prerequisite |
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II. ACTION ITEMS

A. COLLEGE OF SOCIAL AND BEHAVIORAL SCIENCES

1. Minor in Native American Studies	Plan Change
2. BS Applied Indigenous Studies	Plan Change
3. BA Applied Indigenous Studies	Plan Change
4. BSJED	Plan Deletion
5. PRM 221 – Intro to Orienteering	New Course
6. PRM 222–Search and Rescue Technician II& III	New Course
7. PRM 223 – Intro to Technical Rescue	New Course
8. PRM 224 – Intro to Tracking	New Course
9. PRM 225 – Avalanche Safety Level I	New Course
10. PRM 432 – Intro to Multi-day River Expedition Leadership	New Course

B. COLLEGE OF ENGINEERING AND NATURAL SCIENCES

1. BS Biology	Plan Change
2. BS Exercise Science	Plan Change
3. CENE 150L – Intro to Environ. Engin. Lab	New Course
4. CENE 383L – Geotechnical Engineering 1 Lab	New Course
5. CENE 383 – Soil Mechanics and Foundations	Course Change – title, description, corequisite
6. CENE 457 – Masonry Design	New Course
7. STA 275 – Statistical Analysis	New Course
8. STA 477 – Time Series Analysis	New Course
9. STA 270 – Applied Statistics	Course Change – description
10. STA 371 – Intermediate Statistics	Course Change – prerequisite
11. STA 471 – Regression Analysis	Course Change- prerequisite
12. STA 472 – Nonparametric Statistics	Course Change- prerequisite
13. BSEd Mathematics Secondary	Plan Change
14. BS Mathematics Extended	Plan Change
15. Minor in Mathematics, Secondary Education	Plan Change
16. Minor in Statistics	Plan Change
17. Minor in Mathematics	Plan Change

III. DISCUSSION**A. Curriculum Review of University Course Lines**

UNIVERSITY CURRICULUM COMMITTEE

January 16, 2007

MINUTES

OLD BUSINESS

I. MINUTES OF THE November 28, 2006 MEETING – approved.

Members Present: J.Allen, M. Glass, J. Hagood, D. Hardy-Short, E. Hill, D. Koerner, K. Kozak, C. Lee, D. Li.,
B. Maris, C. Medina, E. Norgard, P. Pollak, D. Raymond, D. Ruwe , G. Tallman, B. Urdang , B. Willis

Members Absent: C. Hammersley

NEW BUSINESS

I. CONSENT ITEMS

A. COLLEGE OF SOCIAL AND BEHAVIORAL SCIENCES - approved as presented

- | | |
|--|---|
| 1. EMF 251 – Electronic Media Staff Workshop 1 | Course Change – grading option, requisites, description |
| 2. EMF 252 – Electronic Media Mgmt Workshop 2 | Course Change – grading option, requisites |
| 3. JLS 208 – Fieldwork Experience | Course Change – credits |
| 4. JLS 230 – Humor Writing | Course Change – offering status |
| 5. POS 159 – Nature and Politics | Course Deletion |
| 6. POS 428 – Topics in Public Administration | Course Change – prerequisite |
| 7. VC 329 – Typographics | Course Change – prerequisite |
| 8. VC 333 – Graphic Design | Course Change - prerequisite |

B. CONSORTIUM OF PROFESSIONAL SCHOOLS - approved as presented

- | | |
|---------------------------|-------------------------------|
| 1. HS 205W, 307, 333, 490 | Course Change - prerequisites |
|---------------------------|-------------------------------|

C. Diversity - FOR 270 for US Ethnic Diversity – Fall '06 Approved for spring 2007.

D. COLLEGE OF ENGINEERING AND NATURAL SCIENCES - approved as presented

- | | |
|--|---|
| 1. EGR 286 – Engineering Design: The Process | Course Change – description, requisites |
| 2. CENE 180 – Computer Aided Drafting | Course Change – description |
| 3. CENE 251 – Applied Mechanics Statics | Course Change – description, requisites |
| 4. CENE 270 – Plane Surveying | Course Change – title, description |
| 5. CENE 280 – Environ. Engineering Fundamentals | Course Change – corequisite |
| 6. CENE 330 – Air Quality Engineering | Course Change – description |
| 7. CENE 332 – Solid and Hazardous Waste Mgmt. | Course Change – description, prerequisite |
| 8. CENE 333 – Applied Hydraulics | Course Change – description, prerequisite |
| 9. CENE 333L – Applied Hydraulics Lab | Course Change – description |
| 10. CENE 376 – Structural Analysis I | Course Change - description |
| 11. CENE 386W – Engineering Design: The Methods | Course Change – description |
| 12. CENE 418 – Highway Engineering | Course Change – description |
| 13. CENE 420 – Traffic Study and Signal | Course Change – description, prerequisite |
| 14. CENE 430 – Air Pollution Controls Design | Course Change – prerequisite |
| 15. CENE 433 – Hydrology and Flood Control | Course Change – description, prerequisite |
| 16. CENE 434 – Water & Waste – Water Unites Design | Course Change – description |
| 17. CENE 436 – Structural Steel Design | Course Change – description |
| 18. CENE 437 – Wood Building Design | Course Change –description |
| 19. CENE 438 – Reinforced Concrete Design | Course Change – description |
| 20. CENE 476 – Egr Design Porc Lab | Course Change – title, description |
| 21. CENE 486C – Engineering Design | Course Change – prerequisite |

II. ACTION ITEMS

A. COLLEGE OF SOCIAL AND BEHAVIORAL SCIENCES – items 1-4 approved as presented, items 5-10 tabled due to no department representation at the meeting.

1. Minor in Native American Studies	Plan Change
2. BS Applied Indigenous Studies	Plan Change
3. BA Applied Indigenous Studies	Plan Change
4. BSJED	Plan Deletion
5. PRM 221 – Intro to Orienteering	New Course
6. PRM 222 – Search and Rescue Technician II & III	New Course
7. PRM 223 – Intro to Technical Rescue	New Course
8. PRM 224 – Intro to Tracking	New Course
9. PRM 225 – Avalanche Safety Level I	New Course
10. PRM 432 – Intro to Multi-Day River Expedition Leadership	New Course

B. COLLEGE OF ENGINEERING AND NATURAL SCIENCES – approved as presented.

1. BS Biology	Plan Change
2. BS Exercise Science	Plan Change
3. CENE 150L – Intro to Environ. Engin. Lab	New Course
4. CENE 383L – Geotechnical Engineering 1 Lab	New Course
5. CENE 383 – Soil Mechanics and Foundations	Course Change – title, description, corequisite
6. CENE 457 – Masonry Design	New Course
7. STA 275 – Statistical Analysis	New Course
8. STA 477 – Time Series Analysis	New Course
9. STA 270 – Applied Statistics	Course Change – description
10. STA 371 – Intermediate Statistics	Course Change – prerequisite
11. STA 471 – Regression Analysis	Course Change – prerequisite
12. STA 472 – Nonparametric Statistics	Course Change – prerequisite
13. BSEd Mathematics, Secondary Education	Plan Change
14. BS Mathematics Extended	Plan Change
15. Minor in Mathematics, Secondary Education	Plan Change
16. Minor in Statistics	Plan Change
17. Minor in Mathematics	Plan Change

III. DISCUSSION

A. Curriculum Review of University Course Lines

OTHER – The committee approved the following policy: “The Chair, Associate Dean, or Designee of a department, who is not on a member on the UCC, must represent curricular materials at the UCC meetings.” UCC members can help support and answer questions, but cannot be the sole representative for the materials.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR COURSE CHANGE

1. Is this a Liberal Studies or Diversity Course? Liberal Studies Diversity Both
No
2. Course change effective beginning of what term and year?
(ex. Spring 2008, Summer 2008) See effective dates schedule. SP 07
3. College SBS 4. Academic Unit School of Communication
5. Current course subject/catalog number EMF 251
6. Current catalog title, course description, and units. (*Copy and paste from current on-line academic catalog.*)
Electronic Media Staff Workshop (1) Professional hands-on production, post production, writing or sales experience in working as a staff member in one of the departments of student media operations of UTV or KJACK radio. 1 hr. lecture, 3 hrs. lab for up to 6 hrs. Letter grade only. May be repeated for a maximum of 6 units. Prerequisite or Corequisite: EM 221 or EM 222 or EM 223.
7. Is course currently cross-listed or co-convened? yes no
If yes, list course _____
Will this continue? _____
8. Is course an elective? Yes or required for an academic plan/subplan?
If required, for what academic plan/subplan? _____
If required, also submit *Proposal for New Plan or Plan Change*.
9. Will other courses or academic units, be affected by this change? (Consider prerequisites, degree requirements, etc.) yes no
If yes, explain in the justification and provide supporting documentation from the affected departments.
10. Does this change affect community college articulation? yes no
If yes, explain how in the justification and provide supporting documentation from the affected institutions.
- Is the course a Common Course as defined by your Articulation Task Force? yes no
If yes, has the change been approved by the Articulation Task Force? yes no
- If this course has been listed in the *Course Equivalency Guide*, should that listing be left as is, or be revised?
If revised, how should it be revised? _____

FOR SECTION 11 ONLY COMPLETE WHAT IS CHANGING.

Only fill in what is changing.

If information is remaining the same, leave the section blank.

11. a. Proposed course subject /catalog number _____ b. Proposed units _____

c. If subject/catalog number change, is there a course fee attached to the current subject/catalog number that needs to be moved? Yes No

If yes, please attach a Justification Form for Instructional Fees indicating the new course subject/catalog number change.

d. Proposed to co-convene with _____ Date approved by UGC _____
(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented.)

e. Proposed to cross-list with _____
(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)

f. Proposed long course title _____
(max 100 characters including spaces)

g. Proposed short course title _____
(max 30 characters including spaces)

h. Proposed catalog course description (max. 30 words, excluding requisites)

Electronic Media Staff Workshop (1) Professional hands-on production, post production, writing or sales experience in working as a staff member in one of the departments of student media operations of UTV or KJACK radio. 1 hr. lecture, 3 hrs. lab. May be repeated for a maximum of 6 units.

i. Proposed grading option: Letter grade Pass/Fail or Both **XX**
(If both, the course may only be offered one way for each respective section.)

j. May course be repeated for additional units? yes no

j.1. If yes, maximum units allowed? _____

j.2. If yes, may course be repeated for additional units in the same term? (ex. BIO 300, PES 100)
yes no

k. Please check **ONE** of the following that most appropriately describes the proposed course change(s):

Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research
Seminar Field Studies Independent Study Activity Supervision

l. Proposed prerequisites (must be completed before) EMF 121 or 123 or 124 or 223 or 225 or 226 or 327

m. Proposed co-requisites (must be completed with) EMF 121 or 123 or 124 or 223 or 225 or 226 or 327.

n. If course has no requisites, will all sections of the course require: (If course has pre or co requisite, skip to question 12)
Instructor consent Department consent No consent

Instructor consent

Department consent

No consent

12. Justification for course change. Please indicate how past assessments of student learning prompted proposed changes.

Grading option needs to be changed to "both" letter grade and pass/fail because some sections of this course are better suited to a pass/fail option rather than graded.

Catalogue Copy needs to be changed to delete duplication of "for up to 6 hrs." and delete "Letter grade only"

Co-requisite change needs to be made to update the catalogue to current course offerings and options offered.

13. Approvals

Mark Neum

11-27-06

Department Chair/ Unit Head (if appropriate)

Date

Chair of college curriculum committee

[Signature]

Date

11-30-06

Dean of college

Date

For Committee use only

Ron Pitt

1/16/07

For University Curriculum Committee

Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to college dean, department chair, and Academic Information Office.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR COURSE CHANGE

1. Is this a Liberal Studies or Diversity Course? Liberal Studies Diversity Both
No
2. Course change effective beginning of what term and year?
(ex. Spring 2008, Summer 2008) See effective dates schedule. SP 07
3. College SBS 4. Academic Unit School of Communication
5. Current course subject/catalog number EMF 252

6. Current catalog title, course description, and units. (*Copy and paste from current on-line academic catalog.*)
Electronic Media Management Workshop (2) Hands-on experience in supervising staff members overseeing facilities, and managing departmental operations in a student media facility: UTV news, UTV production, KJACK radio. 2 hr. lecture, 4 hrs. lab Letter grade only. May be repeated for a maximum of 6 units. Prerequisite or Corequisite: EM 221 or EM 222 or EM 223.

Change to: Letter grade or Pass/Fail

Change to: Prerequisite or Corequisite: EMF 121 or 123 or 124 or 223 or 225 or 226 or 327.

7. Is course currently cross-listed or co-convened? yes no
If yes, list course _____
Will this continue? _____
8. Is course an elective? **Yes** or required for an academic plan/subplan?
If required, for what academic plan/subplan? _____
If required, also submit Proposal for New Plan or Plan Change.
9. Will other courses or academic units, be affected by this change? (Consider prerequisites, degree requirements, etc.) yes no
If yes, explain in the justification and provide supporting documentation from the affected departments.
10. Does this change affect community college articulation? yes no
If yes, explain how in the justification and provide supporting documentation from the affected institutions.
- Is the course a Common Course as defined by your Articulation Task Force? yes no
If yes, has the change been approved by the Articulation Task Force? yes no
- If this course has been listed in the Course Equivalency Guide, should that listing be left as is, or be revised?
If revised, how should it be revised? _____

FOR SECTION 11 ONLY COMPLETE WHAT IS CHANGING.

Only fill in what is changing.

If information is remaining the same, leave the section blank.



11. a. Proposed course subject /catalog number _____ b. Proposed units _____
- c. If subject/catalog number change, is there a course fee attached to the current subject/catalog number that needs to be moved? Yes No
If yes, please attach a Justification Form for Instructional Fees indicating the new course subject/catalog number change.
- d. Proposed to co-convene with _____ Date approved by UGC _____
(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented.)
- e. Proposed to cross-list with _____
(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)
- f. Proposed long course title _____
(max 100 characters including spaces)
- g. Proposed short course title _____
(max 30 characters including spaces)
- h. Proposed catalog course description (max. 30 words, excluding requisites)
Electronic Media Management Workshop (2) Hands-on experience in supervising staff members overseeing facilities, and managing departmental operations in a student media facility: UTV news, UTV production, KJACK radio. 2 hr. lecture, 4 hrs. lab. May be repeated for a maximum of 6 units.
- i. Proposed grading option: Letter grade Pass/Fail or Both XX
(If both, the course may only be offered one way for each respective section.)
- j. May course be repeated for additional units? yes no
j.1. If yes, maximum units allowed? _____
j.2. If yes, may course be repeated for additional units in the same term? (ex. BIO 300, PES 100)
yes XX no
- k. Please check **ONE** of the following that most appropriately describes the proposed course change(s):
Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research
Seminar Field Studies Independent Study Activity Supervision
- l. Proposed prerequisites (must be completed before) _____
EMF 124 or EMF 223 or EMF 225 or EMF 226 or EMF 327.
- m. Proposed corequisites (must be completed with) _____
EMF 124 or EMF 223 or EMF 225 or EMF 226 or EMF 327.
- n. If course has no requisites, will all sections of the course require: (If course has pre or co requisite, skip to question 12)
Instructor consent Department consent No consent

12. Justification for course change. Please indicate how past assessments of student learning prompted proposed changes.
Grading option needs to be changed because some sections of this course are better suited to a pass/fail option rather than graded.

Prerequisite or Corerequisite changes need to be made in order to update the catalogue to current course offerings.

13. Approvals

Mark Weema

11-27-06

Department Chair/ Unit Head (if appropriate)

Date

Chair of college curriculum committee

[Signature]

Dean of college

Date

~~11-30-06~~

For Committee use only

Ron B...

1/16/07

For University Curriculum Committee

Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to college dean, department chair, and Academic Information Office.

FOR SECTION 11 ONLY COMPLETE WHAT IS CHANGING.

Only fill in what is changing.

If information is remaining the same, leave the section blank.



11. a. Proposed course subject /catalog number _____ b. Proposed units 3-9
- c. If subject/catalog number change, is there a course fee attached to the current subject/catalog number that needs to be moved? Yes No
If yes, please attach a Justification Form for Instructional Fees indicating the new course subject/catalog number change.
- d. Proposed to co-convene with _____ Date approved by UGC _____
(must be approved by UGC before UCC)
- e. Proposed to cross-list with _____
- f. Proposed long course title _____
(max 100 characters including spaces)
- g. Proposed short course title _____
(max 30 characters including spaces)
- h. Proposed catalog course description (max. 30 words, excluding requisites)
Supervised field experience in an appropriate organization for students who have a limited background in a discipline. Pass-Fail only. Department consent required. Prerequisite: Permission of the supervising department or college is required.
- i. Proposed grading option: Letter grade Pass/Fail or Both
(If both, the course may only be offered one way for each respective section.)
- j. May course be repeated for *additional* units? yes no
9
j.1. If yes, maximum units allowed? units
j.2. If yes, may course be repeated for additional units in the same term? (ex. BIO 300, PES 100)
yes no
11j.2.i. If yes, max units/term _____
- k. Please check **ONE** of the following that most appropriately describes the proposed course change(s):
- k.i. Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research
Seminar Field Studies Independent Study Activity Supervision
- k.ii. In addition to the above, it will also be taught: Web ITV Hybrid Web Hybrid ITV
- l. Proposed prerequisites (must be completed before) _____
- m. Proposed corequisites (must be completed with) _____

n. If course has no requisites, will all sections of the course require: (check only one)

Instructor consent

Academic unit consent

No consent

12. Justification for course change. Please indicate how past assessments of student learning prompted proposed changes.

JLS 208 is a work-study course. The purpose of the class is to give up to 9 credits for primarily freshmen and sophomores who want to work in a journalism environment (The Lumberjack) but do not yet have the credits to give them the opportunity to take an internship.

Can be repeated for up to 9 hours total, with the minium-maximum credits per semester being 3-6.

13. Approvals

Department Chair/ Unit Head (if appropriate)

Date

Chair of college curriculum committee

Date

Dean of college

Date

For Committee use only

For University Curriculum Committee

Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to college dean, department chair, and Academic Information Office.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR COURSE CHANGE

1. Is this course a Liberal Studies Course? yes no
2. Course change effective beginning of what term and year?
(ex. Spring 2008, Summer 2008) See effective dates schedule. Fall
~~Spring 2007~~
3. College Social and Behavioral Sciences 4. Academic Unit School of Communication
5. Current course subject/catalog number JLS 230
6. Current catalog title, course description, and units. (Cut and paste from current on-line academic catalog).
JLS 230 HUMOR WRITING (3)
Introduction to the elements of humor writing, including the creation of jokes, sketches, monologues, and articles.
7. Is course currently cross listed or co-convened? yes no
If yes, list course _____
Will this continue? _____
8. Is course an elective? or required for an academic plan/subplan?
If required, for what academic plan/subplan? _____
If required, also submit *Proposal for New Plan or Plan Change*.
9. Will other courses or academic units, be affected by this change? (Consider prerequisites, degree requirements, etc.) yes no
If yes, explain in the justification and provide supporting documentation from the affected departments.
10. Does this change affect community college articulation? yes no
If yes, explain how in the justification and provide supporting documentation from the affected institutions.
- Is the course a Common Course as defined by your Articulation Task Force? yes no
If yes, has the change been approved by the Articulation Task Force? yes no
- If this course has been listed in the *Course Equivalency Guide*, should that listing be left as is, or be revised?
If revised, how should it be revised? _____

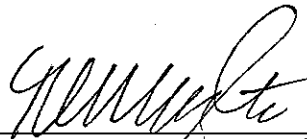
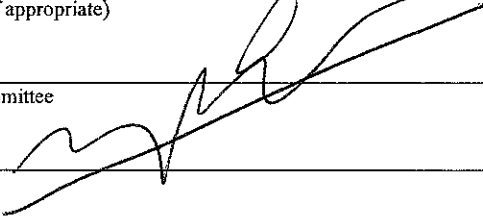

FOR SECTION 11 ONLY COMPLETE WHAT IS CHANGING.

11. a. Proposed course subject /catalog number _____ b. Proposed units _____
- Only fill in what is changing.**
- c. If subject/catalog number change, is there a course fee attached to the current subject/catalog number that needs to be moved? Yes No**
If yes, please attach a Justification Form for Instructional Fees indicating the new course subject/catalog number change.
- If information is remaining the same, leave the section blank.**
- d. Proposed to co-convene with _____ Date approved by UGC _____
(must be approved by UGC before UCC)
- e. Proposed to cross-list with _____
- f. Proposed long course title _____
(max 100 characters including spaces)
- g. Proposed short course title _____
(max 30 characters including spaces)
- h. Proposed catalog course description (max. 30 words, excluding requisites)
- i. Proposed grading option: Letter grade Pass/Fail or Both
(If both, the course may only be offered one way for each respective section.)
- j. May course be repeated for *additional* units? yes no
- j.1. If yes, maximum units allowed? _____
- j.2. If yes, may course be repeated for additional units in the same term? (ex. BIO-300, PES 100)
yes no
- 11j.2.i. If yes, max units/term _____
- k. Please check **ONE** of the following that most appropriately describes the proposed course change(s):
- k.i. Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research
Seminar Field Studies Independent Study Activity Supervision
- k.ii. In addition to the above, it will also be taught: Web ITV Hybrid Web Hybrid ITV
- l. Proposed prerequisites (must be completed before) _____
- m. Proposed corequisites (must be completed with) _____
- n. If course has no requisites, will all sections of the course require: (check only one)
Instructor consent Academic unit consent No consent

12. Justification for course change. Please indicate how past assessments of student learning prompted proposed changes.

A previous course form apparently contained a typographical error, making this course an independent study, when it has actually been a lecture course. This form is just to change the listing for the course to the proper indication of "lecture."

13. Approvals

Department Chair/ Unit Head (if appropriate)		5-9-06 Date
Chair of college curriculum committee		11-23-06 Date
Dean of college		Date
For Committee use only		
For University Curriculum Committee		1/16/07 Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to college dean, department chair, and Academic Information Office.

UNIVERSITY CURRICULUM COMMITTEE

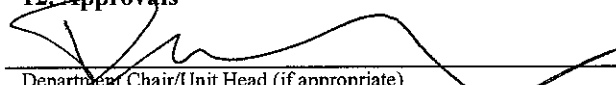
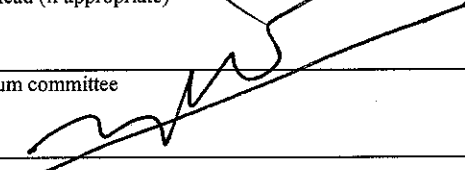
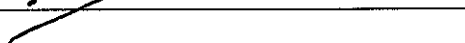

PROPOSAL FOR COURSE DELETION

1. Course deletion effective at the **END** of what term and year?
(ex. Spring 2008, Summer 2008) See effective dates schedule. Spring 2007
2. College SBS 3. Academic Unit POS
4. Current course subject and catalog number POS 159
5. Current catalog title, course description, and units. (*Copy and paste from current on-line academic catalog.*)
POS 159 NATURE AND POLITICS (3)
Introduces major issues and controversies in environmental policy and politics, focusing on Western natural resources and land use from local, tribal, regional, national, and global perspectives. SPW
6. Is this a Liberal Studies or Diversity Course? Liberal Studies Diversity Both
7. Is course currently cross-listed or co-convened? yes no
If yes, list course _____
8. Is course an elective? or required for an academic plan/subplan?
If required, for what academic plan/subplan? Minor in Environmental Studies
If required, also submit *Proposal for Plan Change*.
9. Will other courses or academic units be affected by this change? (Consider prerequisites, degree requirements, etc.)
yes no
If yes, explain in the justification and provide supporting documentation from the affected departments.
10. Does this change affect community college articulation? yes no
If yes, explain how in the justification and provide supporting documentation from the affected institutions.
- Is the course a Common Course as defined by your Articulation Task Force? yes no
If yes, has the change been approved by the Articulation Task Force? yes no
- If this course is listed in the Course Equivalency Guide, should the listing be
changed to departmental elective credit OR changed to elective credit

11. Justification for course deletion.

This course was meant to be a lower-division introduction to environmental politics; it was offered numerous times, but with very low enrollment. The seven-year review of POS suggested that we delete the course and replace it with an upper-division course in global environmental politics. This is what we are now proposing.

12. Approvals

Department Chair/Unit Head (if appropriate)		11.20.06 Date
Chair of college curriculum committee		11-30-06 Date
Dean of college		Date
For Committee use only		
For University Curriculum Committee		1/16/07 Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to college dean, department chair, and Academic Information Office.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR COURSE CHANGE

1. Is this a Liberal Studies or Diversity Course? Liberal Studies Diversity Both
2. Course change effective beginning of what term and year?
(ex. Spring 2008, Summer 2008) See effective dates schedule. Fall 2007
3. College Social and Behavioral Sciences 4. Academic Unit Political Science
5. Current course subject/catalog number POS 428
6. Current catalog title, course description, and units. (*Copy and paste from current on-line academic catalog.*)
POS 428 TOPICS IN PUBLIC ADMINISTRATION (3) Analyzes selected contemporary public administration issues in national and international politics. May be repeated for up to 6 hours of credit with different content.
Prerequisite: 15 earned hours or International Student Group
7. Is course currently cross-listed or co-convened? yes no
If yes, list course _____
Will this continue? _____
8. Is course an elective? or required for an academic plan/subplan?
Master of Administration/Public
If required, for what academic plan/subplan? Management Emphasis
If required, also submit *Proposal for New Plan or Plan Change.*
9. Will other courses or academic units, be affected by this change? (Consider prerequisites, degree requirements, etc.) yes no
If yes, explain in the justification and provide supporting documentation from the affected departments.
10. Does this change affect community college articulation? yes no
If yes, explain how in the justification and provide supporting documentation from the affected institutions.
- Is the course a Common Course as defined by your Articulation Task Force? yes no
If yes, has the change been approved by the Articulation Task Force? yes no
- If this course has been listed in the *Course Equivalency Guide*, should that listing
be left as is, or be revised?
If revised, how should it be revised? _____

FOR SECTION 11 ONLY COMPLETE WHAT IS CHANGING.

Only fill in what is changing.

If information is remaining the same, leave the section blank.

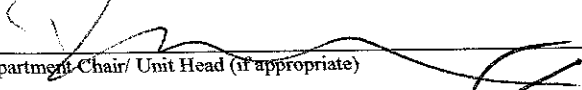
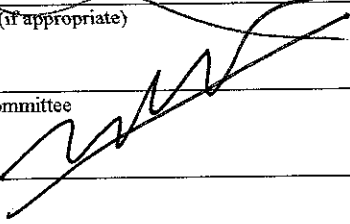



11. a. Proposed course subject /catalog number _____ b. Proposed units _____
- c. If subject/catalog number change, is there a course fee attached to the current subject/catalog number that needs to be moved? Yes No
If yes, please attach a Justification Form for Instructional Fees indicating the new course subject/catalog number change.
- d. Proposed to co-convene with _____ Date approved by UGC _____
(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented.)
- e. Proposed to cross-list with _____
(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)
- f. Proposed long course title _____
(max 100 characters including spaces)
- g. Proposed short course title _____
(max 30 characters including spaces)
- h. Proposed catalog course description (max. 30 words, excluding requisites)
- i. Proposed grading option: Letter grade Pass/Fail or Both
(If both, the course may only be offered one way for each respective section.)
- j. May course be repeated for additional units? yes no
j.1. If yes, maximum units allowed? _____
j.2. If yes, may course be repeated for additional units in the same term? (ex. BIO 300, PES 100)
yes no
- k. Please check **ONE** of the following that most appropriately describes the proposed course change(s):
Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research
Seminar Field Studies Independent Study Activity Supervision
- l. Proposed prerequisites (must be completed before) _____
Sophomore or greater status or International Exchange Student Group
- m. Proposed corequisites (must be completed with) _____
- n. If course has no requisites, will all sections of the course require: (If course has pre or co requisite, skip to question 12)
Instructor consent Department consent No consent

12. Justification for course change. Please indicate how past assessments of student learning prompted proposed changes.

The prerequisite of 15 earned hours has had the effect of preventing graduate students with less than 15 earned hours from enrolling. The intent of this requirement was to ensure a level of academic maturity, and all graduate students meet that condition.

13. Approvals

Department Chair/ Unit Head (if appropriate)		12-1-06 Date
Chair of college curriculum committee		12-1-06 Date
Dean of college		Date
For Committee use only		
For University Curriculum Committee		1/16/07 Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to college dean, department chair, and Academic Information Office.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR COURSE CHANGE

1. Is this a Liberal Studies or Diversity Course? Liberal Studies Diversity Both
2. Course change effective beginning of what term and year?
(ex. Spring 2008, Summer 2008) See effective dates schedule. Fall 2007
3. College SBS
4. Academic Unit School of Communication
5. Current course subject/catalog number VC 329

6. Current catalog title, course description, and units. (*Copy and paste from current on-line academic catalog*).
VC 329 typographics 1
Studio course. Explores traditional and conceptual typographic applications. Focuses on letter, word, line, paragraph, and type-image relationships. Computer-generated type at the intermediate level. 1 hr. lecture, 4 hrs. lab. Prerequisite: VC 152 and VC 251

7. Is course currently cross-listed or co-convened? yes no
- If yes, list course _____
Will this continue? _____

8. Is course an elective? or required for an academic plan/subplan?
- If required, for what academic plan/subplan? _____
If required, also submit *Proposal for New Plan or Plan Change*.

9. Will other courses or academic units, be affected by this change? (Consider prerequisites, degree requirements, etc.) yes no
- If yes, explain in the justification and provide supporting documentation from the affected departments.

10. Does this change affect community college articulation? yes no
- If yes, explain how in the justification and provide supporting documentation from the affected institutions.

Is the course a Common Course as defined by your Articulation Task Force? yes no

If yes, has the change been approved by the Articulation Task Force? yes no

If this course has been listed in the *Course Equivalency Guide*, should that listing be left as is, or be revised?

If revised, how should it be revised? _____

FOR SECTION 11 ONLY COMPLETE WHAT IS CHANGING.

Only fill in what is changing.

If information is remaining the same, leave the section blank.



11. a. Proposed course subject /catalog number _____ b. Proposed units _____
- c. If subject/catalog number change, is there a course fee attached to the current subject/catalog number that needs to be moved? Yes No
If yes, please attach a Justification Form for Instructional Fees indicating the new course subject/catalog number change.
- d. Proposed to co-convene with _____ Date approved by UGC _____
(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented.)
- e. Proposed to cross-list with _____
(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)
- f. Proposed long course title _____
(max 100 characters including spaces)
- g. Proposed short course title _____
(max 30 characters including spaces)
- h. Proposed catalog course description (max. 30 words, excluding requisites)
- i. Proposed grading option: Letter grade Pass/Fail or Both
(If both, the course may only be offered one way for each respective section.)
- j. May course be repeated for additional units? yes no
j.1. If yes, maximum units allowed? _____
j.2. If yes, may course be repeated for additional units in the same term? (ex. BIO 300, PES 100)
yes no
- k. Please check ONE of the following that most appropriately describes the proposed course change(s):
Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research
Seminar Field Studies Independent Study Activity Supervision
- l. Proposed prerequisites (must be completed before) _____
ART 135, ART 150, VC 152 and VC 251 with grades greater than or equal to C
- m. Proposed corequisites (must be completed with) _____
- n. If course has no requisites, will all sections of the course require: (If course has pre or co requisite, skip to question 12)
Instructor consent Department consent No consent

12. Justification for course change. Please indicate how past assessments of student learning prompted proposed changes.

This is to standardize VC 331 graphic design 1 and VC 329 typographics 1 with the same prerequisites.

13. Approvals

Mark Warner 11-27-06
Department Chair/ Unit Head (if appropriate) Date

[Signature] ~~11-27-06~~
Chair of college curriculum committee Date

[Signature] Date
Dean of college Date

For Committee use only

Ron Bell 1/16/07
For University Curriculum Committee Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to college dean, department chair, and Academic Information Office.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR COURSE CHANGE

1. Is this a Liberal Studies or Diversity Course? Liberal Studies Diversity Both
2. Course change effective beginning of what term and year?
(ex. Spring 2008, Summer 2008) See effective dates schedule. Fall 2007
3. College SBS 4. Academic Unit School of Communication
5. Current course subject/catalog number VC 333
6. Current catalog title, course description, and units. (*Copy and paste from current on-line academic catalog.*)
VC 333 Graphic Design 3
Studio course. Focuses on complex visual communication problems, such as packaging design and visual identity. 1 hr. lecture, 4 hrs. lab. Prerequisite: VC 332
7. Is course currently cross-listed or co-convened? yes no
If yes, list course _____
Will this continue? _____
8. Is course an elective? or required for an academic plan/subplan?
If required, for what academic plan/subplan? _____
If required, also submit Proposal for New Plan or Plan Change.
9. Will other courses or academic units, be affected by this change? (Consider prerequisites, degree requirements, etc.) yes no
If yes, explain in the justification and provide supporting documentation from the affected departments.
10. Does this change affect community college articulation? yes no
If yes, explain how in the justification and provide supporting documentation from the affected institutions.
- Is the course a Common Course as defined by your Articulation Task Force? yes no
If yes, has the change been approved by the Articulation Task Force? yes no
- If this course has been listed in the *Course Equivalency Guide*, should that listing
be left as is, or be revised?
If revised, how should it be revised? _____

FOR SECTION 11 ONLY COMPLETE WHAT IS CHANGING.

Only fill in what is changing.

If information is remaining the same, leave the section blank.



11. a. Proposed course subject /catalog number _____ b. Proposed units _____
- c. If subject/catalog number change, is there a course fee attached to the current subject/catalog number that needs to be moved? Yes No
If yes, please attach a Justification Form for Instructional Fees indicating the new course subject/catalog number change.
- d. Proposed to co-convene with _____ Date approved by UGC _____
(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented.)
- e. Proposed to cross-list with _____
(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)
- f. Proposed long course title _____
(max 100 characters including spaces)
- g. Proposed short course title _____
(max 30 characters including spaces)
- h. Proposed catalog course description (max. 30 words, excluding requisites)
- i. Proposed grading option: Letter grade Pass/Fail or Both
(If both, the course may only be offered one way for each respective section.)
- j. May course be repeated for additional units? yes no
j.1. If yes, maximum units allowed? _____
j.2. If yes, may course be repeated for additional units in the same term? (ex. BIO 300, PES 100)
yes no
- k. Please check ONE of the following that most appropriately describes the proposed course change(s):
Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research
Seminar Field Studies Independent Study Activity Supervision
- l. Proposed prerequisites (must be completed before) _____ VC 332 and VC 330 _____
- m. Proposed corequisites (must be completed with) _____
- n. If course has no requisites, will all sections of the course require: (If course has pre or co requisite, skip to question 12)
Instructor consent Department consent No consent

12. Justification for course change. Please indicate how past assessments of student learning prompted proposed changes.
Students need the theory and practice covered in VC 330 to be successful in the completion of assignments in VC 333.

13. Approvals

Mark Neuman 11-27-06
Department Chair/ Unit Head (if appropriate) Date

[Signature] 11-30-06
Chair of college curriculum committee Date

[Signature] _____
Dean of college Date

For Committee use only

[Signature] 1/16/07
For University Curriculum Committee Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to college dean, department chair, and Academic Information Office.

Inbox (<Dominant>)

From: Ron Pitt <Ronald.Pitt@NAU.EDU>
 Subject: Re: Correction to Pre-requisites
 To: Roger Bounds <Roger.Bounds ...snip... Morrow <Nicole.Morrow@NAU.EDU>
 Cc: Lisa.Williams@NAU.EDU, Trish.Rensink@NAU.EDU

Lisa;
 Go ahead and make these changes to the courses listed below.

Nicole:
 Please put this email on the next UCC agenda as a consent item for the requisite changes.

Trish:
 HS 305W is out of order in the academic catalog. Will you please fix this so that it is in between HS 303 and 307.

At 12:12 PM 11/30/2006, Roger Bounds wrote:

Ron,
 I have a question about some of our prerequisites in the Health Sciences Department.

We use the milestone process as a mechanism of tracking our Community Health Promotion student's progress through our curriculum. More specifically, we use the milestone in conjunction with our program admission procedure as a way of acknowledging those students who have been accepted into the upper division courses.

To do this, last year we place the "Community Health Milestone" as prerequisite on the appropriate upper division courses. This system is working very well for these students.

The problem we are encountering is that several of these courses are also required in other programs where the program application and milestone does not apply. This results in a barrier to registration for certain students. So far, we have been dealing with this by granting overrides to students. Obviously, this is not the most efficient mechanism.

I spoke with Lisa Williams about different ways that we might fix the issue in a way that the registration system would enforce our prerequisite as intended, but not create barriers to enrollment for other students. We were able to come up with a solution that will enforce the milestone as a prerequisite for the Community Health Promotion Students, but not enforce it on students from the other programs. Lisa seemed to think this solution would allow the system to correctly enforce the prerequisites as they were intended.

The new prerequisites should be as follows:

HS 305W Prerequisite: (ENG 105 or HON 190 or HON 191 with a grade greater than or equal to B) **and** (HP 200 or HS 200 with grade greater than or equal to B) **and** (HP 300 or HS 300 with grade greater than or equal to C) **and** (Health Sci-Comm Hlth Milestone **or** students in the BS HS: Allied Health Plan **or** Students in the BAS-HS plan **or** Student in the Physical Education School Health Plan)

HS 307 Prerequisite: (HP 300 or HS 300 with grade greater than or equal to C) **and** (HS 305W with a grade greater than or equal to C) **and** (HS 306 with a grade of C or better) **and** (Health Sci-Comm Hlth Milestone **or** students in the BS HS: Allied Health Plan **or** Students in the BAS-HS plan)

HS 333 Prerequisite: (HP 300 or HS 300 with grade greater than or equal to C) **and** (Health Sci-Comm Hlth Milestone **or** students in the BS HS: Allied Health Plan **or** Students in the BAS-HS plan)

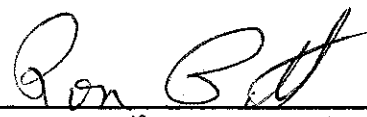
HS 490 Prerequisite: (HP 200 or HS 200 with grade greater than or equal to B) or (HP 300 or HS 300 with grade greater than or equal to C) and (Health Sci-Comm Hlth Milestone or students in the BS HS: Allied Health Plan or Students in the BAS-HS plan)

Since these are only changes that allow the system to work correctly, can I assume that there is no need to go through the UCC process? If so, can you forward this to Lisa for input into the system?

Thanks for all of your help.

Roger

Roger Bounds, Ph.D., CHES
Assistant Professor
Department of Health Sciences
Northern Arizona University
Flagstaff AZ, 86011-5095
(928) 523-6159
Roger.Bounds@nau.edu



UCC Approval 1/16/07

X-Original-To: nam2@jan.ucc.nau.edu
Delivered-To: nam2@jan.ucc.nau.edu
Date: Fri, 08 Dec 2006 08:25:15 -0700
From: John J Doherty <John.Doherty@NAU.EDU>
Subject: Diversity Decision, FOR 270
To: thom.alcoze@NAU.EDU, Nicole Morrow <Nicole.Morrow@NAU.EDU>
User-Agent: Thunderbird 1.5.0.8 (Windows/20061025)

Dr. Alcoze --

The Diversity Subcommittee of UCC met yesterday and reviewed FOR 270 for US Ethnic Diversity.

On behalf of the subcommittee, I am pleased to inform you that we have reviewed the documentation and have approved FOR 270 for a US Ethnic Diversity designation. We were very pleased to be able to review this course and feel it will be a strong addition to the diversity course list.

This decision will be forward to UCC for final approval. Please let me know if you have any further questions.

~John Doherty, Chair


--

John J. Doherty, MA MLS
Librarian, Arts & Letters Team Leader
Cline Library, Northern Arizona University
Flagstaff, AZ 86011-6022
928-523-8569 // 928-523-9180 (F)
John.Doherty@nau.edu

Hi Nicole --

I copied you in on this message. However, what I did not mention was that we approved this course for Fall 2006, the current semester.

~John



UCC Approval 1/16/07

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR COURSE CHANGE

1. Is this a Liberal Studies or Diversity Course? Liberal Studies Diversity Both

2. Course change effective beginning of what term and year?
(ex. Spring 2008, Summer 2008) See effective dates schedule. Fall 2007

3. College CENS 4. Academic Unit EGR

5. Current course subject/catalog number EGR 286

6. Current catalog title, course description, and units. (*Copy and paste from current on-line academic catalog*).

ENGINEERING DESIGN: THE PROCESS (3)

Engineering design process: cost constraints, individualized written and oral communication assignments, teamwork, ethics, professionalism, and computer skills. Prerequisite: (EGR 186 or EGR 186H or CS 136) and (EE 188 or ME 180 or CENE 180) with grades greater than or equal to C

7. Is course currently cross-listed or co-convened? yes no
If yes, list course _____
Will this continue? _____

8. Is course an elective? or required for an academic plan/subplan?
Civil Engr., Electrical Engr.,
If required, for what academic plan/subplan? Environmental Engr., Mechanical Engr.
If required, also submit *Proposal for New Plan or Plan Change*.

9. Will other courses or academic units, be affected by this change? (Consider prerequisites, degree requirements, etc.) yes no
If yes, explain in the justification and provide supporting documentation from the affected departments.

10. Does this change affect community college articulation? yes no
If yes, explain how in the justification and provide supporting documentation from the affected institutions.

Is the course a Common Course as defined by your Articulation Task Force? yes no
If yes, has the change been approved by the Articulation Task Force? yes no

If this course has been listed in the Course Equivalency Guide, should that listing be left as is, or be revised?

If revised, how should it be revised? _____

FOR SECTION 11 ONLY COMPLETE WHAT IS CHANGING.

11. a. Proposed course subject /catalog number _____ b. Proposed units _____
- c. If subject/catalog number change, is there a course fee attached to the current subject/catalog number that needs to be moved? Yes No**
If yes, please attach a Justification Form for Instructional Fees indicating the new course subject/catalog number change.
- d. Proposed to co-convene with _____ Date approved by UGC _____**
(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented.)
- e. Proposed to cross-list with _____**
(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)
- f. Proposed long course title _____**
(max 100 characters including spaces)
- g. Proposed short course title _____**
(max 30 characters including spaces)
- h. Proposed catalog course description (max. 30 words, excluding requisites)**

Only fill in what is changing.

If information is remaining the same, leave the section blank.

The process of engineering design, mechanisms and controls, computer and programming skills, teamwork and project management, written and oral communications.

- i. Proposed grading option: Letter grade Pass/Fail or Both**
(If both, the course may only be offered one way for each respective section.)
- j. May course be repeated for additional units? yes no**
j.1. If yes, maximum units allowed? _____
j.2. If yes, may course be repeated for additional units in the same term? (ex. BIO 300, PES 100)
yes no
- k. Please check ONE of the following that most appropriately describes the proposed course change(s):**
- Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research
Seminar Field Studies Independent Study Activity Supervision
- l. Proposed prerequisites (must be completed before) _____**
(EE 188 or ME 180 or CENE 180) and (EGR 186 or EGR 186H) with grades greater than or equal to C
- m. Proposed corequisites (must be completed with) _____**
EE 188 or ME 180 or CENE 180
- n. If course has no requisites, will all sections of the course require: (If course has pre or co requisite, skip to question 12)**
Instructor consent Department consent No consent

12. Justification for course change. Please indicate how past assessments of student learning prompted proposed changes.

Description revised to better reflect course content. The design sequence of courses in engineering (186, 286, 386, and 486), known as Design 4 Practice, has undergone refinement over the years. The change in course description is intended to reflect the current content of the course, which we anticipate will not change in the foreseeable future.

Prerequisite: removed CS 136 prerequisite. Corequisites did not change (restated in Item 11-m for clarity).

13. Approvals

11/15/06

Department Chair/ Unit Head (if appropriate)

Date

DEC - 7 - 06

Chair of college curriculum committee

Date

7 Dec 06

Dean of college

Date

For Committee use only

11/16/07

For University Curriculum Committee

Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to college dean, department chair, and Academic Information Office.

Letter of support from Electrical Engineering:

----- Original Message -----

Subject: Re: Revised EGR 286 description for catalog
Date: Tue, 31 Oct 2006 11:30:32 -0700
From: David Scott <David.Scott@NAU.EDU>
To: Debra Larson <debra.larson@NAU.EDU>
References: <45479226.9010005@nau.edu>

Deb,

I am not sure that CS136 even belongs in the list anymore since CS students don't take this course. I am also concerned that EGR286 may be overwhelmed with students if the prerequisites are relaxed. We should be ready to offer two sections of this class next fall anyway, however, so maybe that won't be too much of a problem. Dave Scott

Letter of support from Mechanical Engineering

John Tester wrote:

Deb,

Looks good to both of us.

Date: Tue, 31 Oct 2006 14:16:30 -0700
From: David Hartman <david.hartman@nau.edu>
Subject: Re: Fwd: Revised EGR 286 description for catalog
To: John Tester <John.Tester@nau.edu>
User-Agent: Thunderbird 1.5.0.4 (Windows/20060516)

I'm flattered to be included in the decision (I think). Your new description looks really good to me. It should last for another year or two. And it should have no effect on ABET --- we're simply doing what is required, CPI (continuous program improvement).

John Tester wrote:

Dave,

In reference to this email: Deb and I have been discussing this change already. What do you think? I don't see a major problem with it, unless our ABET accreditation process hinges on it. The deletion of the cost aspects, from an ME Dept point of view, is not a problem, as we will cover this in Senior design now (ME 476C).

Date: Tue, 31 Oct 2006 11:12:54 -0700
From: Debra Larson <debra.larson@nau.edu>
Subject: Revised EGR 286 description for catalog
To: Paul Gremillion <Paul.Gremillion@nau.edu>,
John Tester <John.Tester@nau.edu>
Cc: David Scott <David.Scott@nau.edu>
User-Agent: Thunderbird 1.5.0.7 (Windows/20060909)

Paul (and John and Dave),

The current catalog description for EGR 286 is:

EGR 286 ENGINEERING DESIGN: THE PROCESS (3)

Engineering design process: cost constraints, individualized written and oral communication assignments, teamwork, ethics, professionalism, and computer skills. Prerequisite: (EGR 186 or EGR 186H or CS 136) and (EE 188 or ME 180 or CENE 180) with grades greater than or equal to C

I am proposing it be changed to:

EGR 286 ENGINEERING DESIGN: THE PROCESS (3)

The process of engineering design, mechanisms and controls, computer and programming skills, teamwork and project management, written and oral communications. Co-requisite: (EE 188 or ME 180 or CENE 180). Prerequisite: (EGR 186 or EGR 186H or CS 136) with grades greater than or equal to C

For John and Dave...This change better reflects what is going on in EGR 286 since it was revised back in 04. Moving part of the prerequisite to a co-requisite provides a bit more flexibility for students in their schedules, and these particular skills are not, today, required components of what is going on in 286. Paul G is the CENE's curriculum rep and he is right in the middle of preparing a curriculum change submittal, so we thought we could take on EGR 286 at the same time, you are both in agreement.

deb

John T. Tester, Ph.D.
Associate Professor, Mech. Engr.
College of Engineering & Natural Sciences
P.O. Box 15600, Bldg. 69
Northern Arizona University
Flagstaff, AZ 86011-5600
Voice: 928-523-0032
Fax: 928-523-2300

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR COURSE CHANGE

1. Is this a Liberal Studies or Diversity Course? Liberal Studies Diversity Both
2. Course change effective beginning of what term and year?
(ex. Spring 2008, Summer 2008) See effective dates schedule. Fall 2007
3. College CENS 4. Academic Unit CENE
5. Current course subject/catalog number CENE 180
6. Current catalog title, course description, and units. (*Copy and paste from current on-line academic catalog*).

COMPUTER AIDED DRAFTING (2)

Fundamentals of graphical communications, including sketching, computer aided drafting, standards, scaling, and basic civil and environmental engineering applications. 1 hour lecture/3 hour laboratory. Prerequisite: MAT 125 or MAT 125H or higher with a grade greater than or equal to C or Corequisite: MAT 125 or MAT 125H or higher

7. Is course currently cross-listed or co-convened? yes no
If yes, list course _____
Will this continue? _____
8. Is course an elective? or required for an academic plan/subplan?
If required, for what academic plan/subplan? Civil Engr., Environmental Engr.
If required, also submit *Proposal for New Plan or Plan Change*.
9. Will other courses or academic units, be affected by this change? (Consider prerequisites, degree requirements, etc.) yes no
If yes, explain in the justification and provide supporting documentation from the affected departments.
10. Does this change affect community college articulation? yes no
If yes, explain how in the justification and provide supporting documentation from the affected institutions.
- Is the course a Common Course as defined by your Articulation Task Force? yes no
If yes, has the change been approved by the Articulation Task Force? yes no
- If this course has been listed in the Course Equivalency Guide, should that listing be left as is, or be revised?
If revised, how should it be revised? _____

FOR SECTION 11 ONLY COMPLETE WHAT IS CHANGING.

11. a. Proposed course subject /catalog number _____ b. Proposed units _____
- c. If subject/catalog number change, is there a course fee attached to the current subject/catalog number that needs to be moved? Yes No
If yes, please attach a Justification Form for Instructional Fees indicating the new course subject/catalog number change.
- d. Proposed to co-convene with _____ Date approved by UGC _____
(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented.)
- e. Proposed to cross-list with _____
(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)
- f. Proposed long course title _____
(max 100 characters including spaces)
- g. Proposed short course title _____
(max 30 characters including spaces)
- h. Proposed catalog course description (max. 30 words, excluding requisites)

Only fill in what is changing.

If information is remaining the same, leave the section blank.

Fundamentals of graphical communications, including sketching, computer aided drafting, standards, scaling, and basic civil and environmental engineering design applications. 1 hour lecture/3 hour laboratory.

- i. Proposed grading option: Letter grade Pass/Fail or Both
(If both, the course may only be offered one way for each respective section.)
- j. May course be repeated for additional units? yes no
j.1. If yes, maximum units allowed? _____
j.2. If yes, may course be repeated for additional units in the same term? (ex. BIO 300, PES 100)
yes no
- k. Please check ONE of the following that most appropriately describes the proposed course change(s):
Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research
Seminar Field Studies Independent Study Activity Supervision
- l. Proposed prerequisites (must be completed before) _____
- m. Proposed corequisites (must be completed with) _____
- n. If course has no requisites, will all sections of the course require: (If course has pre or co requisite, skip to question 12)
Instructor consent Department consent No consent

12. Justification for course change. Please indicate how past assessments of student learning prompted proposed changes.

As part of our preparation for an accreditation visit, we have developed a matrix of learning outcomes for each of our courses. A learning outcome associated with engineering design has been an element of this course, but is not included in the course description. The proposed revision corrects this omission.

13. Approvals

Department Chair/ Unit Head (if appropriate) 11/15/06
Date

Chair of college curriculum committee Dec-07-06
Date

Dean of college 7 Dec 06
Date

For Committee use only

For University Curriculum Committee 1/16/07
Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to college dean, department chair, and Academic Information Office.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR COURSE CHANGE

1. Is this a Liberal Studies or Diversity Course? Liberal Studies Diversity Both

2. Course change effective beginning of what term and year?
(ex. Spring 2008, Summer 2008) *See effective dates schedule.*

Fall 2007

3. College CENS

4. Academic Unit CENE

5. Current course subject/catalog number CENE 251

6. Current catalog title, course description, and units. (*Copy and paste from current on-line academic catalog*).

APPLIED MECHANICS STATICS (3)

Fundamentals of applied mechanics, vector algebra, equivalent force systems, equations of equilibrium, structures, moments of plane areas, centroids, friction. Prerequisite: (PHY 161 and PHY 161L) or (PHY 262 and PHY 262L) and MAT 137 or higher with grade greater than or equal to C

7. Is course currently cross-listed or co-convened? yes no

If yes, list course _____

Will this continue? _____

8. Is course an elective? or required for an academic plan/subplan?

**Civil Engr., Electrical Engr., Engr. Physics,
Environmental Engr., and Mechanical**

If required, for what academic plan/subplan? Engr.

If required, also submit *Proposal for New Plan or Plan Change*.

9. Will other courses or academic units, be affected by this change? (Consider prerequisites, degree requirements, etc.) yes no

If yes, explain in the justification and provide supporting documentation from the affected departments.

10. Does this change affect community college articulation? yes no

If yes, explain how in the justification and provide supporting documentation from the affected institutions.

Is the course a Common Course as defined by your Articulation Task Force? yes no

If yes, has the change been approved by the Articulation Task Force? yes no

If this course has been listed in the *Course Equivalency Guide*, should that listing be left as is, or be revised?

If revised, how should it be revised? _____

FOR SECTION 11 ONLY COMPLETE WHAT IS CHANGING.

11. a. Proposed course subject /catalog number _____ b. Proposed units _____
- c. If subject/catalog number change, is there a course fee attached to the current subject/catalog number that needs to be moved?** Yes No
- If yes, please attach a Justification Form for Instructional Fees indicating the new course subject/catalog number change.
- d. Proposed to co-convene with _____ Date approved by UGC _____
(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented.)
- e. Proposed to cross-list with _____
(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)
- f. Proposed long course title _____
(max 100 characters including spaces)
- g. Proposed short course title _____
(max 30 characters including spaces)
- h. Proposed catalog course description (max. 30 words, excluding requisites)

Only fill in what is changing.

If information is remaining the same, leave the section blank.



Fundamentals of applied mechanics, vector algebra, equivalent force systems, equations of equilibrium, structures, centroids, friction, moments of inertia.

- i. Proposed grading option: Letter grade Pass/Fail or Both
(If both, the course may only be offered one way for each respective section.)
- j. May course be repeated for additional units? yes no
- j.1. If yes, maximum units allowed? _____
- j.2. If yes, may course be repeated for additional units in the same term? (ex. BIO 300, PES 100)
yes no
- k. Please check **ONE** of the following that most appropriately describes the proposed course change(s):
- Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research
- Seminar Field Studies Independent Study Activity Supervision

- l. Proposed prerequisites (must be completed before) (PHY 161 and PHY 161L) or (PHY 262 and PHY 262L) and MAT 137 or higher with grade greater than or equal to C
- m. Proposed corequisites (must be completed with) MAT 137
- n. If course has no requisites, will all sections of the course require: (If course has pre or co requisite, skip to question 12)

Instructor consent

Department consent

No consent

12. Justification for course change. Please indicate how past assessments of student learning prompted proposed changes.

As part of our preparation for an upcoming accreditation visit, we have reviewed all of our course descriptions. Course content has been modified gradually to reflect current practice in engineering. The proposed changes reflect the current content of the course.

MAT 137 added as a corequisite to improve student accessibility to course. Requisite content of MAT 137 occurs late enough in course that MAT 137 can be listed as corequisite.

Prerequisites not changed, but repeated in Line 11-1 to clarify that the prerequisite has not been dropped.

13. Approvals

11/15/06

Department Chair/ Unit Head (if appropriate)

Date

Dec-07-06

Chair of college curriculum committee

Date

7 Dec 06

Dean of college

Date

For Committee use only

1/16/07

For University Curriculum Committee

Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to college dean, department chair, and Academic Information Office.

Letter of Support from Electrical Engineering:

Subject: Re: Letter of support for CENE 251 change
From: David Scott <David.Scott@NAU.EDU>
Date: Wed, 15 Nov 2006 08:42:16 -0700
To: Paul Gremillion <paul.gremillion@NAU.EDU>

Paul,

This change will not affect the electrical engineering program and we support the change.

Paul Gremillion wrote:

Hi -

We propose to revise the prerequisites for CENE 251 so that MAT 137 is a corequisite. We also want to update the course description. Attached is the course change form. Can you provide an email of support for this?

Let me know if you have questions.

Thanks,

Paul

--

David R. Scott, Ph.D.
Chair, Electrical Engineering Department, Northern Arizona University
P.O. Box 15600, Flagstaff, Arizona, 86011-5600
Phone: 928-523-3162 Fax: 928-523-2300
Email: David.Scott@nau.edu
Department Webpage: <http://www.cens.nau.edu/Academic/EE>

Letter of Support from Mechanical Engineering:

Subject: Re: Letter of support for CENE 251 change
From: David Hartman <david.hartman@NAU.EDU>
Date: Wed, 15 Nov 2006 17:18:24 -0700
To: Paul Gremillion <paul.gremillion@NAU.EDU>
CC: cet-me@cet.nau.edu

The faculty in Mechanical Engineering today recorded in a department meeting that they do not see a problem with your suggestion of using MAT 137 as a Co-Req for CENE 251 Statics.

Paul Gremillion wrote:

Hi -

We propose to revise the prerequisites for CENE 251 so that MAT 137 is a corequisite. We also want to update the course description. Attached is the course change form. Can you provide an email of support for this?

Let me know if you have questions.

Thanks,

Paul

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR COURSE CHANGE

1. Is this a Liberal Studies or Diversity Course? Liberal Studies Diversity Both
2. Course change effective beginning of what term and year?
(ex. Spring 2008, Summer 2008) See effective dates schedule. Fall 2007

3. College CENS 4. Academic Unit CENE

5. Current course subject/catalog number CENE 270

6. Current catalog title, course description, and units. (*Copy and paste from current on-line academic catalog*).

PLANE SURVEYING (3)

Surveying instruments and basic procedures including error analysis; note keeping; measurement of distance, elevation, and angles with appropriate precision; traversing; stadia; and topographic mapping. 2 hrs. lecture, 3 hrs. lab. Prerequisite: MAT 125 or MAT 125H with grade greater than or equal to C or Math Placement 55 or higher or International Student Group

7. Is course currently cross-listed or co-convened? yes no

If yes, list course _____

Will this continue? _____

8. Is course an elective? or required for an academic plan/subplan?

If required, for what academic plan/subplan? Civil Engr., Environmental Engr.

If required, also submit *Proposal for New Plan or Plan Change*.

9. Will other courses or academic units, be affected by this change? (Consider prerequisites, degree requirements, etc.) yes no

If yes, explain in the justification and provide supporting documentation from the affected departments.

10. Does this change affect community college articulation? yes No

If yes, explain how in the justification and provide supporting documentation from the affected institutions.

Is the course a Common Course as defined by your Articulation Task Force? yes no

If yes, has the change been approved by the Articulation Task Force? Yes no

If this course has been listed in the Course Equivalency Guide, should that listing be left as is, or be revised?

If revised, how should it be revised?

Revise course title.

FOR SECTION 11 ONLY COMPLETE WHAT IS CHANGING.

11. a. Proposed course subject /catalog number _____ b. Proposed units _____
- c. If subject/catalog number change, is there a course fee attached to the current subject/catalog number that needs to be moved? Yes No
If yes, please attach a Justification Form for Instructional Fees indicating the new course subject/catalog number change.
- d. Proposed to co-convene with _____ Date approved by UGC _____
(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented.)
- e. Proposed to cross-list with _____
(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)
- f. Proposed long course title SURVEYING
(max 100 characters including spaces)
- g. Proposed short course title _____
(max 30 characters including spaces) SURVEYING
- h. Proposed catalog course description (max. 30 words, excluding requisites)

Only fill in what is changing.

If information is remaining the same, leave the section blank.

Overview of basic surveying procedures, error analysis; note keeping; measurement of distance, elevation, and angles with appropriate precision; leveling; total stations; and topographic mapping. 2 hrs. lecture, 3 hrs. lab.

- i. Proposed grading option: Letter grade Pass/Fail or Both
(If both, the course may only be offered one way for each respective section.)
- j. May course be repeated for additional units? yes no
j.1. If yes, maximum units allowed? _____
j.2. If yes, may course be repeated for additional units in the same term? (ex. BIO 300, PES 100)
yes no
- k. Please check ONE of the following that most appropriately describes the proposed course change(s):
Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research
Seminar Field Studies Independent Study Activity Supervision
- l. Proposed prerequisites (must be completed before) _____
- m. Proposed corequisites (must be completed with) _____
- n. If course has no requisites, will all sections of the course require: (If course has pre or co requisite, skip to question 12)
Instructor consent Department consent No consent

12. Justification for course change. Please indicate how past assessments of student learning prompted proposed changes.

As part of our preparation for an upcoming accreditation visit, we have reviewed all of our course descriptions. Course content has been modified gradually to reflect current practice in engineering. The proposed changes in course title and description reflect the current content of the course.

13. Approvals

11/15/06

Department Chair/ Unit Head (if appropriate)

Date

Chair of college curriculum committee

11-07-06

Date

Dean of college

7 Dec 06

Date

For Committee use only

For University Curriculum Committee

1/16/07

Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to college dean, department chair, and Academic Information Office.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR COURSE CHANGE

1. Is this a Liberal Studies or Diversity Course? Liberal Studies Diversity Both

2. Course change effective beginning of what term and year?
(ex. Spring 2008, Summer 2008) *See effective dates schedule.* Fall 2007

3. College CENS 4. Academic Unit CENE

5. Current course subject/catalog number CENE 280

6. Current catalog title, course description, and units. (*Copy and paste from current on-line academic catalog*).

ENVIRONMENTAL ENGINEERING FUNDAMENTALS (3)

A course in environmental engineering fundamentals that applies biological, chemical, and mathematical principles to solve environmental engineering problems using the mass balance approach. Prerequisite: (BIO 181 and CENE 150 and CHM 152 and MAT 136 or MAT 136H with grade greater than or equal to C) or International Student Group

7. Is course currently cross-listed or co-convened? yes no
If yes, list course _____
Will this continue? _____

8. Is course an elective? or required for an academic plan/subplan?
If required, for what academic plan/subplan? Environmental Engr.
If required, also submit *Proposal for New Plan or Plan Change*.

9. Will other courses or academic units, be affected by this change? (Consider prerequisites, degree requirements, etc.) yes no
If yes, explain in the justification and provide supporting documentation from the affected departments.

10. Does this change affect community college articulation? yes No
If yes, explain how in the justification and provide supporting documentation from the affected institutions.

Is the course a Common Course as defined by your Articulation Task Force? yes no
If yes, has the change been approved by the Articulation Task Force? Yes no

If this course has been listed in the *Course Equivalency Guide*, should that listing be left as is, or be revised?
If revised, how should it be revised? _____

FOR SECTION 11 ONLY COMPLETE WHAT IS CHANGING.

Only fill in what is changing.

If information is remaining the same, leave the section blank.

11. a. Proposed course subject/catalog number _____ b. Proposed units _____
- c. If subject/catalog number change, is there a course fee attached to the current subject/catalog number that needs to be moved? Yes No
If yes, please attach a Justification Form for Instructional Fees indicating the new course subject/catalog number change.
- d. Proposed to co-convene with _____ Date approved by UGC _____
(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented.)
- e. Proposed to cross-list with _____
(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)
- f. Proposed long course title _____
(max 100 characters including spaces)
- g. Proposed short course title _____
(max 30 characters including spaces)
- h. Proposed catalog course description (max. 30 words, excluding requisites)
- i. Proposed grading option: Letter grade Pass/Fail or Both
(If both, the course may only be offered one way for each respective section.)
- j. May course be repeated for additional units? yes no
j.1. If yes, maximum units allowed? _____
j.2. If yes, may course be repeated for additional units in the same term? (ex. BIO 300, PES 100)
yes no
- k. Please check ONE of the following that most appropriately describes the proposed course change(s):
Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research
Seminar Field Studies Independent Study Activity Supervision
- (BIO 181 and CENE 150 and CHM 152 and MAT 136 or MAT 136H with grade greater than or equal to C) or International Student Group**
- l. Proposed prerequisites (must be completed before) _____
- m. Proposed corequisites (must be completed with) BIO 181
- n. If course has no requisites, will all sections of the course require: (If course has pre or co requisite, skip to question 12)
Instructor consent Department consent No consent

12. Justification for course change. Please indicate how past assessments of student learning prompted proposed changes.

BIO 181 listed as corequisite or prerequisite to improve student accessibility to course. BIO 181 content necessary for CENE 280 occurs late in 280 course.

Prerequisites unchanged, but repeated in Line 11-1 to clarify that prerequisites were not dropped.

13. Approvals

11/15/06

Department Chair/ Unit Head (if appropriate)

Date

Chair of college curriculum committee

Date

Dean of college

Date

For Committee use only

For University Curriculum Committee

Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to college dean, department chair, and Academic Information Office.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR COURSE CHANGE

1. Is this a Liberal Studies or Diversity Course? Liberal Studies Diversity Both
2. Course change effective beginning of what term and year?
(ex. Spring 2008, Summer 2008) See effective dates schedule. Fall 2007

3. College CENS 4. Academic Unit CENE

5. Current course subject/catalog number CENE 330

6. Current catalog title, course description, and units. (*Copy and paste from current on-line academic catalog*).

AIR QUALITY ENGINEERING (3)

Technical approaches to air quality problems; source identification; acid deposition; ozone; control of primary and toxic air pollutants; indoor air quality. Prerequisite: CENE 280 and MAT 137 with grades greater than or equal to C

7. Is course currently cross-listed or co-convened? yes no
If yes, list course _____
Will this continue? _____

8. Is course an elective? or required for an academic plan/subplan?
If required, for what academic plan/subplan? Environmental Engr.
If required, also submit *Proposal for New Plan or Plan Change*.

9. Will other courses or academic units, be affected by this change? (Consider prerequisites, degree requirements, etc.) yes no
If yes, explain in the justification and provide supporting documentation from the affected departments.

10. Does this change affect community college articulation? yes No
If yes, explain how in the justification and provide supporting documentation from the affected institutions.

Is the course a Common Course as defined by your Articulation Task Force? yes no
If yes, has the change been approved by the Articulation Task Force? Yes no

If this course has been listed in the Course Equivalency Guide, should that listing be left as is, or be revised?

If revised, how should it be revised? _____

FOR SECTION 11 ONLY COMPLETE WHAT IS CHANGING.

Only fill in what is changing.

If information is remaining the same, leave the section blank.

11. a. Proposed course subject /catalog number _____ b. Proposed units _____
- c. If subject/catalog number change, is there a course fee attached to the current subject/catalog number that needs to be moved? Yes No
If yes, please attach a Justification Form for Instructional Fees indicating the new course subject/catalog number change.
- d. Proposed to co-convene with _____ Date approved by UGC _____
(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented.)
- e. Proposed to cross-list with _____
(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)
- f. Proposed long course title _____
(max 100 characters including spaces)
- g. Proposed short course title _____
(max 30 characters including spaces)
- h. Proposed catalog course description (max. 30 words, excluding requisites)

Design and analytical approaches to air quality problems; source identification; acid deposition; ozone; control of primary and toxic air pollutants; indoor air quality.

- i. Proposed grading option: Letter grade Pass/Fail or Both
(If both, the course may only be offered one way for each respective section.)
- j. May course be repeated for additional units? yes no
j.1. If yes, maximum units allowed? _____
j.2. If yes, may course be repeated for additional units in the same term? (ex. BIO 300, PES 100)
yes no
- k. Please check ONE of the following that most appropriately describes the proposed course change(s):
Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research
Seminar Field Studies Independent Study Activity Supervision
- l. Proposed prerequisites (must be completed before) _____
- m. Proposed corequisites (must be completed with) _____
- n. If course has no requisites, will all sections of the course require: (If course has pre or co requisite, skip to question 12)
Instructor consent Department consent No consent

12. Justification for course change. Please indicate how past assessments of student learning prompted proposed changes.

As part of our preparation for an upcoming accreditation visit, we have reviewed all of our course descriptions. Course content has been modified gradually to reflect current practice in engineering. The proposed changes reflect the current content of the course.

13. Approvals

11/15/06

Department Chair/ Unit Head (if appropriate)

Date

Chair of college curriculum committee

12-27-06

Date

Dean of college

7 Dec 06

Date

For Committee use only

For University Curriculum Committee

1/16/07

Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to college dean, department chair, and Academic Information Office.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR COURSE CHANGE

1. Is this a Liberal Studies or Diversity Course? Liberal Studies Diversity Both

2. Course change effective beginning of what term and year?
(ex. Spring 2008, Summer 2008) *See effective dates schedule.*

Fall 2007

3. College CENS

4. Academic Unit CENE

5. Current course subject/catalog number CENE 332

6. Current catalog title, course description, and units. (*Copy and paste from current on-line academic catalog.*)

SOLID AND HAZARDOUS WASTE MANAGEMENT (3)

Waste identification, physicochemical properties, fate and transport in the environment, site characterization and assessment, remediation tools and technologies. Prerequisite: CENE 280 and (CHM 230 or CHM 235 or CHM 440) with grades greater than or equal to C

7. Is course currently cross-listed or co-convened? yes no

If yes, list course

Will this continue?

8. Is course an elective? or required for an academic plan/subplan?

If required, for what academic plan/subplan? Environmental Engr.

If required, also submit Proposal for New Plan or Plan Change.

9. Will other courses or academic units, be affected by this change? (Consider prerequisites, degree requirements, etc.) yes no

If yes, explain in the justification and provide supporting documentation from the affected departments.

10. Does this change affect community college articulation? yes No

If yes, explain how in the justification and provide supporting documentation from the affected institutions.

Is the course a Common Course as defined by your Articulation Task Force? yes no

If yes, has the change been approved by the Articulation Task Force? Yes no

If this course has been listed in the *Course Equivalency Guide*, should that listing be left as is, or be revised?

If revised, how should it be revised?

FOR SECTION 11 ONLY COMPLETE WHAT IS CHANGING.



11. a. Proposed course subject /catalog number _____ b. Proposed units _____
c. If subject/catalog number change, is there a course fee attached to the current subject/catalog number that needs to be moved? Yes No
If yes, please attach a Justification Form for Instructional Fees indicating the new course subject/catalog number change.

Only fill in what is changing.

If information is remaining the same, leave the section blank.

d. Proposed to co-convene with _____ Date approved by UGC _____
(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented.)

e. Proposed to cross-list with _____
(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)

f. Proposed long course title _____
(max 100 characters including spaces)

g. Proposed short course title _____
(max 30 characters including spaces)

h. Proposed catalog course description (max. 30 words, excluding requisites)

Waste identification, soils, subsurface fate and transport, toxicology, environmental / public health and risk assessment, site characterization and assessment tools, remediation tools and technologies, team design project.

i. Proposed grading option: Letter grade Pass/Fail or Both
(If both, the course may only be offered one way for each respective section.)

j. May course be repeated for additional units? yes no

j.1. If yes, maximum units allowed? _____

j.2. If yes, may course be repeated for additional units in the same term? (ex. BIO 300, PES 100)

yes no

k. Please check ONE of the following that most appropriately describes the proposed course change(s):

Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research

Seminar Field Studies Independent Study Activity Supervision

(CHM 230 or CHM 235) and CENE 280 or for non-majors (CHM 230 or CHM 235) and (BIO 300 or higher, or CHM 300 or higher, or ENV 280, or GLG 300 or higher, or PHY 300 or higher)

l. Proposed prerequisites (must be completed before) _____

m. Proposed corequisites (must be completed with) _____



n. If course has no requisites, will all sections of the course require: (If course has pre or co requisite, skip to question 12)
Instructor consent Department consent No consent

12. Justification for course change. Please indicate how past assessments of student learning prompted proposed changes.

As part of our preparation for an upcoming accreditation visit, we have reviewed all of our course descriptions. Course content has been modified gradually to reflect current practice in engineering. The proposed changes reflect the current content of the course.

We have also developed a matrix of learning outcomes for each of our courses. A learning outcome associated with engineering design has been an element of this course, but is not included in the course description. The proposed revision corrects this omission.

Prerequisites changed to improve accessibility to the course by non-engineering students.

13. Approvals

11/15/06

Department Chair/ Unit Head (if appropriate)

Date

Dec-7-06

Chair of college curriculum committee

Date

7 Dec 06

Dean of college

Date

For Committee use only

1/16/07

For University Curriculum Committee

Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to college dean, department chair, and Academic Information Office.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR COURSE CHANGE

1. Is this a Liberal Studies or Diversity Course? Liberal Studies Diversity Both

2. Course change effective beginning of what term and year?
(ex. Spring 2008, Summer 2008) See effective dates schedule.

Fall 2007

3. College CENS

4. Academic Unit CENE

5. Current course subject/catalog number CENE 333

6. Current catalog title, course description, and units. (Copy and paste from current on-line academic catalog).

APPLIED HYDRAULICS (3)

Hydraulic considerations for public works wells, pump distribution systems, gravity flow systems, and treatment-plant design use of computer analysis techniques. Prerequisite or Corequisite: CENE 333L and ME 395

7. Is course currently cross-listed or co-convened? yes no

If yes, list course _____

Will this continue? _____

8. Is course an elective? or required for an academic plan/subplan?

If required, for what academic plan/subplan? Civil Engr., Environmental Engr.

If required, also submit *Proposal for New Plan or Plan Change*.

9. Will other courses or academic units, be affected by this change? (Consider prerequisites, degree requirements, etc.) yes no

If yes, explain in the justification and provide supporting documentation from the affected departments.

10. Does this change affect community college articulation? yes No

If yes, explain how in the justification and provide supporting documentation from the affected institutions.

Is the course a Common Course as defined by your Articulation Task Force? yes no

If yes, has the change been approved by the Articulation Task Force? Yes no

If this course has been listed in the Course Equivalency Guide, should that listing be left as is, or be revised?

If revised, how should it be revised? _____

FOR SECTION 11 ONLY COMPLETE WHAT IS CHANGING.

Only fill in what is changing.

If information is remaining the same, leave the section blank.

11. a. Proposed course subject /catalog number _____ b. Proposed units _____
- c. If subject/catalog number change, is there a course fee attached to the current subject/catalog number that needs to be moved? Yes No
If yes, please attach a Justification Form for Instructional Fees indicating the new course subject/catalog number change.
- d. Proposed to co-convene with _____ Date approved by UGC _____
(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented.)
- e. Proposed to cross-list with _____
(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)
- f. Proposed long course title _____
(max 100 characters including spaces)
- g. Proposed short course title _____
(max 30 characters including spaces)
- h. Proposed catalog course description (max. 30 words, excluding requisites)

Hydraulic analysis and design for water systems, including wells, pumps, pressurized distribution systems, open-channel flow, and culverts.

- i. Proposed grading option: Letter grade Pass/Fail or Both
(If both, the course may only be offered one way for each respective section.)
- j. May course be repeated for additional units? yes no
j.1. If yes, maximum units allowed? _____
j.2. If yes, may course be repeated for additional units in the same term? (ex. BIO 300, PES 100)
yes no
- k. Please check **ONE** of the following that most appropriately describes the proposed course change(s):
Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research
Seminar Field Studies Independent Study Activity Supervision
- l. Proposed prerequisites (must be completed before) ME 395 with a grade greater than or equal to C
- m. Proposed corequisites (must be completed with) ME 395 and CENE 333L
- n. If course has no requisites, will all sections of the course require: (If course has pre or co requisite, skip to question 12)
Instructor consent Department consent No consent

12. Justification for course change. Please indicate how past assessments of student learning prompted proposed changes.


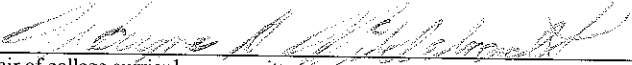
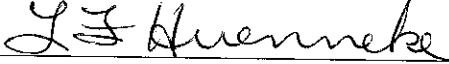

As part of our preparation for an upcoming accreditation visit, we have reviewed all of our course descriptions. Course content has been modified gradually to reflect current practice in engineering. The proposed changes reflect the current content of the course.

We have also developed a matrix of learning outcomes for each of our courses. A learning outcome associated with engineering design has been an element of this course, but is not included in the course description. The proposed revision corrects this omission.

Prerequisite minimum grade of C identified for consistency: All science and engineering prerequisite courses must have a grade of C or higher.

Corequisite unchanged, but repeated in Line 11-m to clarify that corequisite has not been dropped.

13. Approvals

	11/15/06
Department Chair/ Unit Head (if appropriate)	Date
	Dec-7-06
Chair of college curriculum committee	Date
	7 Dec 06
Dean of college	Date
For Committee use only	
	1/16/07
For University Curriculum Committee	Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to college dean, department chair, and Academic Information Office.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR COURSE CHANGE

1. Is this a Liberal Studies or Diversity Course? Liberal Studies Diversity Both

2. Course change effective beginning of what term and year?
(ex. Spring 2008, Summer 2008) *See effective dates schedule.* Fall 2007

3. College CENS 4. Academic Unit CENE

5. Current course subject/catalog number CENE 333L

6. Current catalog title, course description, and units. (*Copy and paste from current on-line academic catalog*).

APPLIED HYDRAULICS LAB (1)

Lab for CENE 333. Provides hands-on experience in solving design problems using contemporary hydraulics software, lab demonstrations, field work, and site visits. Corequisite: CENE 333.

7. Is course currently cross-listed or co-convened? yes no

If yes, list course _____

Will this continue? _____

8. Is course an elective? or required for an academic plan/subplan?

If required, for what academic plan/subplan? Civil Engr., Environmental Engr.

If required, also submit *Proposal for New Plan or Plan Change*.

9. Will other courses or academic units, be affected by this change? (Consider prerequisites, degree requirements, etc.) yes no

If yes, explain in the justification and provide supporting documentation from the affected departments.

10. Does this change affect community college articulation? yes No

If yes, explain how in the justification and provide supporting documentation from the affected institutions.

Is the course a Common Course as defined by your Articulation Task Force? yes no

If yes, has the change been approved by the Articulation Task Force? Yes no

If this course has been listed in the *Course Equivalency Guide*, should that listing be left as is, or be revised?

If revised, how should it be revised? _____

FOR SECTION 11 ONLY COMPLETE WHAT IS CHANGING.

Only fill in what is changing.

If information is remaining the same, leave the section blank.

11. a. Proposed course subject /catalog number _____ b. Proposed units _____
- c. If subject/catalog number change, is there a course fee attached to the current subject/catalog number that needs to be moved? Yes No
If yes, please attach a Justification Form for Instructional Fees indicating the new course subject/catalog number change.
- d. Proposed to co-convene with _____ Date approved by UGC _____
(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented.)
- e. Proposed to cross-list with _____
(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)
- f. Proposed long course title _____
(max 100 characters including spaces)
- g. Proposed short course title _____
(max 30 characters including spaces)
- h. Proposed catalog course description (max. 30 words, excluding requisites)

Lab for CENE 333. Provides hands-on experience solving design problems involving open channels, culverts, water systems, and storm water using contemporary hydraulics software and instrumentation, lab work, and field work.

- i. Proposed grading option: Letter grade Pass/Fail or Both
(If both, the course may only be offered one way for each respective section.)
- j. May course be repeated for additional units? yes no
j.1. If yes, maximum units allowed? _____
j.2. If yes, may course be repeated for additional units in the same term? (ex. BIO 300, PES 100)
yes no
- k. Please check ONE of the following that most appropriately describes the proposed course change(s):
Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research
Seminar Field Studies Independent Study Activity Supervision
- l. Proposed prerequisites (must be completed before) _____
- m. Proposed corequisites (must be completed with) CENE 333
- n. If course has no requisites, will all sections of the course require: (If course has pre or co requisite, skip to question 12)
Instructor consent Department consent No consent

12. Justification for course change. Please indicate how past assessments of student learning prompted proposed changes.

As part of our preparation for an upcoming accreditation visit, we have reviewed all of our course descriptions. Course content has been modified gradually to reflect current practice in engineering. The proposed changes reflect the current content of the course.

13. Approvals

Department Chair/ Unit Head (if appropriate)

11/15/06

Date

Chair of college curriculum committee

Dec-7-06

Date

Dean of college

7 Dec 06

Date

For Committee use only

For University Curriculum Committee

11/16/07

Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to college dean, department chair, and Academic Information Office.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR COURSE CHANGE

1. Is this a Liberal Studies or Diversity Course? Liberal Studies Diversity Both

2. Course change effective beginning of what term and year?
(ex. Spring 2008, Summer 2008) See effective dates schedule. Fall 2007

3. College CENS 4. Academic Unit CENE

5. Current course subject/catalog number CENE 376

6. Current catalog title, course description, and units. (*Copy and paste from current on-line academic catalog*).

STRUCTURAL ANALYSIS I (3)

Determinate structures, cables, V&M diagrams, influence lines, moving loads, deflection methods, approximate analysis of indeterminate structures, and computer analysis. Prerequisite: CENE 253 with grade greater than or equal to C

7. Is course currently cross-listed or co-convened? yes no
If yes, list course _____
Will this continue? _____

8. Is course an elective? or required for an academic plan/subplan?
If required, for what academic plan/subplan? Civil Engr.
If required, also submit *Proposal for New Plan or Plan Change*.

9. Will other courses or academic units, be affected by this change? (Consider prerequisites, degree requirements, etc.) yes No
If yes, explain in the justification and provide supporting documentation from the affected departments.

10. Does this change affect community college articulation? yes No
If yes, explain how in the justification and provide supporting documentation from the affected institutions.

Is the course a Common Course as defined by your Articulation Task Force? yes no
If yes, has the change been approved by the Articulation Task Force? Yes no

If this course has been listed in the Course Equivalency Guide, should that listing be left as is, or be revised?

If revised, how should it be revised? _____

FOR SECTION 11 ONLY COMPLETE WHAT IS CHANGING.

Only fill in what is changing.

If information is remaining the same, leave the section blank.

11. a. Proposed course subject /catalog number _____ b. Proposed units _____
- c. If subject/catalog number change, is there a course fee attached to the current subject/catalog number that needs to be moved? Yes No
If yes, please attach a Justification Form for Instructional Fees indicating the new course subject/catalog number change.
- d. Proposed to co-convene with _____ Date approved by UGC _____
(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented.)
- e. Proposed to cross-list with _____
(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)
- f. Proposed long course title _____
(max 100 characters including spaces)
- g. Proposed short course title _____
(max 30 characters including spaces)
- h. Proposed catalog course description (max. 30 words, excluding requisites)

Determinate structures, cables, shear and moment diagrams, influence lines, moving loads, deflection methods, approximate analysis of indeterminate structures, and computer analysis.

- i. Proposed grading option: Letter grade Pass/Fail or Both
(If both, the course may only be offered one way for each respective section.)
- j. May course be repeated for additional units? yes no
j.1. If yes, maximum units allowed? _____
j.2. If yes, may course be repeated for additional units in the same term? (ex. BIO 300, PES 100)
yes no
- k. Please check ONE of the following that most appropriately describes the proposed course change(s):
Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research
Seminar Field Studies Independent Study Activity Supervision
- l. Proposed prerequisites (must be completed before) _____
- m. Proposed corequisites (must be completed with) _____
- n. If course has no requisites, will all sections of the course require: (If course has pre or co requisite, skip to question 12)
Instructor consent Department consent No consent

12. Justification for course change. Please indicate how past assessments of student learning prompted proposed changes.

The course description has been revised to clarify terminology that may be unfamiliar to the reader.

13. Approvals

Department Chair/ Unit Head (if appropriate) 11/15/06

Date

Chair of college curriculum committee Dec-7-06

Date

Dean of college 7 Dec 06

Date

For Committee use only

For University Curriculum Committee 1/16/07

Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to college dean, department chair, and Academic Information Office.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR COURSE CHANGE

1. Is this a Liberal Studies or Diversity Course? Liberal Studies Diversity Both

2. Course change effective beginning of what term and year?
(ex. Spring 2008, Summer 2008) See effective dates schedule. Fall 2007

3. College CENS 4. Academic Unit CENE

5. Current course subject/catalog number CENE 386W

6. Current catalog title, course description, and units. (*Copy and paste from current on-line academic catalog*).

ENGINEERING DESIGN: THE METHODS (3)

Methods of engineering design, including project planning and management, project economics, data analysis and management, systems modeling and performance evaluation, and assessment of engineering impacts on social and cultural concerns. This course fulfills NAU's junior-level writing requirement. Prerequisite: EGR 286 and (ENG 105 or HON 190 or HON 191) with grade greater than or equal to C JWRT

7. Is course currently cross-listed or co-convened? yes no
If yes, list course _____
Will this continue? _____

8. Is course an elective? or required for an academic plan/subplan?
If required, for what academic plan/subplan? Civil Engr., Environmental Engr.
If required, also submit *Proposal for New Plan or Plan Change*.

9. Will other courses or academic units, be affected by this change? (Consider prerequisites, degree requirements, etc.) yes no
If yes, explain in the justification and provide supporting documentation from the affected departments.

10. Does this change affect community college articulation? yes No
If yes, explain how in the justification and provide supporting documentation from the affected institutions.

Is the course a Common Course as defined by your Articulation Task Force? yes no
If yes, has the change been approved by the Articulation Task Force? Yes no

If this course has been listed in the *Course Equivalency Guide*, should that listing be left as is, or be revised?

If revised, how should it be revised? _____

FOR SECTION 11 ONLY COMPLETE WHAT IS CHANGING.

11. a. Proposed course subject /catalog number _____ b. Proposed units _____
- c. If subject/catalog number change, is there a course fee attached to the current subject/catalog number that needs to be moved? Yes No
If yes, please attach a Justification Form for Instructional Fees indicating the new course subject/catalog number change.
- d. Proposed to co-convene with _____ Date approved by UGC _____
(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented.)
- e. Proposed to cross-list with _____
(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)
- f. Proposed long course title _____
(max 100 characters including spaces)
- g. Proposed short course title _____
(max 30 characters including spaces)
- h. Proposed catalog course description (max. 30 words, excluding requisites)

Methods of engineering design, including project planning and management, project economics, assessment of engineering impacts on social and cultural concerns, and professional writing. This course fulfills NAU's junior-level writing requirement.

- i. Proposed grading option: Letter grade Pass/Fail or Both
(If both, the course may only be offered one way for each respective section.)
- j. May course be repeated for *additional* units? yes no
j.1. If yes, maximum units allowed? _____
j.2. If yes, may course be repeated for additional units in the same term? (ex. BIO 300, PES 100)
yes no
- k. Please check **ONE** of the following that most appropriately describes the proposed course change(s):
Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research
Seminar Field Studies Independent Study Activity Supervision
- l. Proposed prerequisites (must be completed before) _____
- m. Proposed corequisites (must be completed with) _____
- n. If course has no requisites, will all sections of the course require: (If course has pre or co requisite, skip to question 12)
Instructor consent Department consent No consent

12. Justification for course change. Please indicate how past assessments of student learning prompted proposed changes.

As part of our preparation for an upcoming accreditation visit, we have reviewed all of our course descriptions. Course content has been modified gradually to reflect current practice in engineering. The proposed changes reflect the current content of the course.

13. Approvals

11/15/06

Department Chair/ Unit Head (if appropriate)

Date

12/7/06

Chair of college curriculum committee

Date

7 Dec 06

Dean of college

Date

For Committee use only

1/16/07

For University Curriculum Committee

Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to college dean, department chair, and Academic Information Office.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR COURSE CHANGE

1. Is this a Liberal Studies or Diversity Course? Liberal Studies Diversity Both

2. Course change effective beginning of what term and year?
(ex. Spring 2008, Summer 2008) See effective dates schedule. Fall 2007

3. College CENS 4. Academic Unit CENE

5. Current course subject/catalog number CENE 418

6. Current catalog title, course description, and units. (*Copy and paste from current on-line academic catalog*).

HIGHWAY ENGINEERING (3)

Emphasizes highway geometric design, including capacity, human factors, safety, drainage, and specifications. Introduces highway construction, maintenance, and pavement design; transportation planning; and traffic engineering. 2 hrs. lecture, 3 hrs. lab. Prerequisite: (EGR 225 or CENE 225) and CENE 270 and CENE 383 with grades greater than or equal to C

7. Is course currently cross-listed or co-convened? yes no
If yes, list course _____
Will this continue? _____

8. Is course an elective? or required for an academic plan/subplan?
If required, for what academic plan/subplan? Civil Engr.
If required, also submit *Proposal for New Plan or Plan Change*.

9. Will other courses or academic units, be affected by this change? (Consider prerequisites, degree requirements, etc.) yes No
If yes, explain in the justification and provide supporting documentation from the affected departments.

10. Does this change affect community college articulation? yes No
If yes, explain how in the justification and provide supporting documentation from the affected institutions.

Is the course a Common Course as defined by your Articulation Task Force? yes no
If yes, has the change been approved by the Articulation Task Force? Yes no

If this course has been listed in the Course Equivalency Guide, should that listing be left as is, or be revised?
If revised, how should it be revised? _____

FOR SECTION 11 ONLY COMPLETE WHAT IS CHANGING.

Only fill in what is changing.

If information is remaining the same, leave the section blank.

11. a. Proposed course subject /catalog number _____ b. Proposed units _____
- c. If subject/catalog number change, is there a course fee attached to the current subject/catalog number that needs to be moved? Yes No
If yes, please attach a Justification Form for Instructional Fees indicating the new course subject/catalog number change.
- d. Proposed to co-convene with _____ Date approved by UGC _____
(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented.)
- e. Proposed to cross-list with _____
(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)
- f. Proposed long course title _____
(max 100 characters including spaces)
- g. Proposed short course title _____
(max 30 characters including spaces)
- h. Proposed catalog course description (max. 30 words, excluding requisites)

Highway capacity analysis and geometric design, including driver-roadway-vehicle model, traffic characteristics, level of service, human factors, safety, drainage, and specs. Lab applies concepts to a semester-long, geometric design of an actual highway. 2 hrs. lecture, 3 hrs. lab.

- i. Proposed grading option: Letter grade Pass/Fail or Both
(If both, the course may only be offered one way for each respective section.)
- j. May course be repeated for *additional* units? yes no
j.1. If yes, maximum units allowed? _____
j.2. If yes, may course be repeated for additional units in the same term? (ex. BIO 300, PES 100)
yes no
- k. Please check **ONE** of the following that most appropriately describes the proposed course change(s):
Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research
Seminar Field Studies Independent Study Activity Supervision
- l. Proposed prerequisites (must be completed before) _____
- m. Proposed corequisites (must be completed with) _____
- n. If course has no requisites, will all sections of the course require: (If course has pre or co requisite, skip to question 12)
Instructor consent Department consent No consent

12. Justification for course change. Please indicate how past assessments of student learning prompted proposed changes.

As part of our preparation for an upcoming accreditation visit, we have reviewed all of our course descriptions. Course content has been modified gradually to reflect current practice in engineering. The proposed changes reflect the current content of the course.

13. Approvals

11/15/06

Department Chair/ Unit Head (if appropriate)

Date

Dec 7, 06

Chair of college curriculum committee

Date

7 Dec 06

Dean of college

Date

For Committee use only

1/16/07

For University Curriculum Committee

Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to college dean, department chair, and Academic Information Office.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR COURSE CHANGE

1. Is this a Liberal Studies or Diversity Course? Liberal Studies Diversity Both

2. Course change effective beginning of what term and year?
(ex. Spring 2008, Summer 2008) See effective dates schedule. Fall 2007

3. College CENS 4. Academic Unit CENE

5. Current course subject/catalog number CENE 420

6. Current catalog title, course description, and units. (*Copy and paste from current on-line academic catalog.*)

TRAFFIC STUDY AND SIGNAL (3)

Basic concepts including driver-roadway-vehicle system characteristics, traffic studies, capacity analysis, and traffic-control devices. Lab introduces traffic-engineering studies and signal-system operations, including computer applications. Coconvenes with CENE 541. 2 hrs. lecture, 3 hrs. lab. Prerequisite: (EGR 225 or CENE 225) and EGR 286 and one 300- or 400-level CENE-Civil and Environmental Engineering course

7. Is course currently cross-listed or co-convened? yes no

If yes, list course CENE 541

Will this continue? Yes

8. Is course an elective? or required for an academic plan/subplan?

If required, for what academic plan/subplan? Civil Engr.

If required, also submit *Proposal for New Plan or Plan Change.*

9. Will other courses or academic units, be affected by this change? (Consider prerequisites, degree requirements, etc.) yes No

If yes, explain in the justification and provide supporting documentation from the affected departments.

10. Does this change affect community college articulation? yes No

If yes, explain how in the justification and provide supporting documentation from the affected institutions.

Is the course a Common Course as defined by your Articulation Task Force? yes no

If yes, has the change been approved by the Articulation Task Force? Yes no

If this course has been listed in the *Course Equivalency Guide*, should that listing be left as is, or be revised?

If revised, how should it be revised? _____

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR COURSE CHANGE

1. Is this a Liberal Studies or Diversity Course? Liberal Studies Diversity Both

2. Course change effective beginning of what term and year?
(ex. Spring 2008, Summer 2008) See effective dates schedule.

Fall 2007

3. College CENS

4. Academic Unit CENE

5. Current course subject/catalog number CENE 420

6. Current catalog title, course description, and units. (Copy and paste from current on-line academic catalog).

TRAFFIC STUDY AND SIGNAL (3)

Basic concepts including driver-roadway-vehicle system characteristics, traffic studies, capacity analysis, and traffic-control devices. Lab introduces traffic-engineering studies and signal-system operations, including computer applications. Coconvenes with CENE 541. 2 hrs. lecture, 3 hrs. lab. Prerequisite: (EGR 225 or CENE 225) and EGR 286 and one 300- or 400-level CENE-Civil and Environmental Engineering course

7. Is course currently cross-listed or co-convened? yes no

If yes, list course CENE 541

Will this continue? Yes

8. Is course an elective? or required for an academic plan/subplan?

If required, for what academic plan/subplan? Civil Engr.

If required, also submit *Proposal for New Plan or Plan Change*.

9. Will other courses or academic units, be affected by this change? (Consider prerequisites, degree requirements, etc.) yes No

If yes, explain in the justification and provide supporting documentation from the affected departments.

10. Does this change affect community college articulation? yes No

If yes, explain how in the justification and provide supporting documentation from the affected institutions.

Is the course a Common Course as defined by your Articulation Task Force? yes no

If yes, has the change been approved by the Articulation Task Force? Yes no

If this course has been listed in the *Course Equivalency Guide*, should that listing be left as is, or be revised?

If revised, how should it be revised?

12. Justification for course change. Please indicate how past assessments of student learning prompted proposed changes.

As part of our preparation for an upcoming accreditation visit, we have reviewed all of our course descriptions. Course content has been modified gradually to reflect current practice in engineering. The proposed changes reflect the current content of the course.

We have also developed a matrix of learning outcomes for each of our courses. A learning outcome associated with engineering design has been an element of this course, but is not included in the course description. The proposed revision corrects this omission.

Prerequisite for 300- or 400-level CENE course dropped.

13. Approvals

11/15/06

Department Chair/ Unit Head (if appropriate)

Date

Chair of college curriculum committee

Date

Dec 7 06

Dean of college

Date

7 Dec 06

For Committee use only

For University Curriculum Committee

Date

1/16/07

Action taken: approved as submitted approved as modified

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR COURSE CHANGE

1. Is this a Liberal Studies or Diversity Course? Liberal Studies Diversity Both

2. Course change effective beginning of what term and year?
(ex. Spring 2008, Summer 2008) *See effective dates schedule.* Fall 2007

3. College CENS 4. Academic Unit CENE

5. Current course subject/catalog number CENE 430

6. Current catalog title, course description, and units. (*Copy and paste from current on-line academic catalog*).

AIR POLLUTION CONTROLS DESIGN (3)

Design process and procedure for control of particulate and gaseous pollutants. Includes pollution prevention considerations. Prerequisite: ME 395 or CENE 380 with a grade greater than or equal to C

7. Is course currently cross-listed or co-convened? yes no
If yes, list course _____
Will this continue? _____

8. Is course an elective? or required for an academic plan/subplan?
If required, for what academic plan/subplan? _____
If required, also submit *Proposal for New Plan or Plan Change*.

9. Will other courses or academic units, be affected by this change? (Consider prerequisites, degree requirements, etc.) yes no
If yes, explain in the justification and provide supporting documentation from the affected departments.

10. Does this change affect community college articulation? yes No
If yes, explain how in the justification and provide supporting documentation from the affected institutions.

Is the course a Common Course as defined by your Articulation Task Force? yes no
If yes, has the change been approved by the Articulation Task Force? Yes no

If this course has been listed in the *Course Equivalency Guide*, should that listing be left as is, or be revised?
If revised, how should it be revised? _____

FOR SECTION 11 ONLY COMPLETE WHAT IS CHANGING.

Only fill in what is changing.

If information is remaining the same, leave the section blank.



11. a. Proposed course subject /catalog number _____ b. Proposed units _____

c. If subject/catalog number change, is there a course fee attached to the current subject/catalog number that needs to be moved? Yes No

If yes, please attach a Justification Form for Instructional Fees indicating the new course subject/catalog number change.

d. Proposed to co-convene with _____ Date approved by UGC _____
(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented.)

e. Proposed to cross-list with _____
(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)

f. Proposed long course title _____
(max 100 characters including spaces)

g. Proposed short course title _____
(max 30 characters including spaces)

h. Proposed catalog course description (max. 30 words, excluding requisites)

i. Proposed grading option: Letter grade Pass/Fail or Both
(If both, the course may only be offered one way for each respective section.)

j. May course be repeated for additional units? yes no

j.1. If yes, maximum units allowed? _____

j.2. If yes, may course be repeated for additional units in the same term? (ex. BIO 300, PES 100)
yes no

k. Please check **ONE** of the following that most appropriately describes the proposed course change(s):

Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research
Seminar Field Studies Independent Study Activity Supervision

l. Proposed prerequisites (must be completed before)

ME 395 with a grade greater than or equal to C

m. Proposed corequisites (must be completed with)

n. If course has no requisites, will all sections of the course require: (If course has pre or co requisite, skip to question 12)

Instructor consent Department consent No consent

12. Justification for course change. Please indicate how past assessments of student learning prompted proposed changes.

Prerequisite of CENE 380 to be dropped as this course has been deleted.

13. Approvals

11/15/06

Department Chair, Unit Head (if appropriate)

Date

Dec 7, 06

Chair of college curriculum committee

Date

7 Dec 06

Dean of college

Date

For Committee use only

1/16/07

For University Curriculum Committee

Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to college dean, department chair, and Academic Information Office.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR COURSE CHANGE

1. Is this a Liberal Studies or Diversity Course? Liberal Studies Diversity Both

2. Course change effective beginning of what term and year?
(ex. Spring 2008, Summer 2008) *See effective dates schedule.* Fall 2007

3. College CENS

4. Academic Unit CENE

5. Current course subject/catalog number CENE 433

6. Current catalog title, course description, and units. (*Copy and paste from current on-line academic catalog*).

HYDROLOGY AND FLOOD CONTROL (3)

Hydrologic design and analysis of drainage and flood-control systems. Hydrologic cycle components necessary for determining design flows. Computer modeling. Prerequisite or Corequisite: CENE 333

7. Is course currently cross-listed or co-convened? yes no
If yes, list course _____
Will this continue? _____

8. Is course an elective? or required for an academic plan/subplan?
If required, for what academic plan/subplan? Civil Engr.
If required, also submit *Proposal for New Plan or Plan Change*.

9. Will other courses or academic units, be affected by this change? (Consider prerequisites, degree requirements, etc.) yes no
If yes, explain in the justification and provide supporting documentation from the affected departments.

10. Does this change affect community college articulation? yes No
If yes, explain how in the justification and provide supporting documentation from the affected institutions.

Is the course a Common Course as defined by your Articulation Task Force? yes no
If yes, has the change been approved by the Articulation Task Force? Yes no

If this course has been listed in the *Course Equivalency Guide*, should that listing be left as is, or be revised?

If revised, how should it be revised? _____

FOR SECTION 11 ONLY COMPLETE WHAT IS CHANGING.

Only fill in what is changing.

If information is remaining the same, leave the section blank.

11. a. Proposed course subject /catalog number _____ b. Proposed units _____
- c. If subject/catalog number change, is there a course fee attached to the current subject/catalog number that needs to be moved? Yes No
If yes, please attach a Justification Form for Instructional Fees indicating the new course subject/catalog number change.
- d. Proposed to co-convene with _____ Date approved by UGC _____
(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented.)
- e. Proposed to cross-list with _____
(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)
- f. Proposed long course title _____
(max 100 characters including spaces)
- g. Proposed short course title _____
(max 30 characters including spaces)
- h. Proposed catalog course description (max. 30 words, excluding requisites)

Hydrologic design and analysis of drainage and flood-control systems. Hydrologic system components necessary for determining design flows. Development of computer tools for hydrologic analysis.

- i. Proposed grading option: Letter grade Pass/Fail or Both
(If both, the course may only be offered one way for each respective section.)
- j. May course be repeated for additional units? yes no
j.1. If yes, maximum units allowed? _____
j.2. If yes, may course be repeated for additional units in the same term? (ex. BIO 300, PES 100)
yes no
- k. Please check **ONE** of the following that most appropriately describes the proposed course change(s):
Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research
Seminar Field Studies Independent Study Activity Supervision
- l. Proposed prerequisites (must be completed before) CENE 333 with a grade greater than or equal to C
- m. Proposed corequisites (must be completed with) CENE 333
- n. If course has no requisites, will all sections of the course require: (If course has pre or co requisite, skip to question 12)
Instructor consent Department consent No consent

12. Justification for course change. Please indicate how past assessments of student learning prompted proposed changes.

As part of our preparation for an upcoming accreditation visit, we have reviewed all of our course descriptions. Course content has been modified gradually to reflect current practice in engineering. The proposed changes reflect the current content of the course.

Prerequisite modified to reflect departmental requirement of C or better in all science and engineering prerequisites.

Corequisite unchanged, but repeated in Line 11-m to clarify that it has not been dropped.

13. Approvals

11/15/06

Department Chair/ Unit Head (if appropriate)

Date

Dec-7-2006

Chair of college curriculum committee

Date

7 Dec 06

Dean of college

Date

For Committee use only

1/16/07

For University Curriculum Committee

Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to college dean, department chair, and Academic Information Office.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR COURSE CHANGE

1. Is this a Liberal Studies or Diversity Course? Liberal Studies Diversity Both
2. Course change effective beginning of what term and year?
(ex. Spring 2008, Summer 2008) *See effective dates schedule.* Fall 2007
3. College CENS 4. Academic Unit CENE
5. Current course subject/catalog number CENE 434
6. Current catalog title, course description, and units. (*Copy and paste from current on-line academic catalog*).

WATER AND WASTE-WATER UNITS DESIGN (3)

Design-based environmental engineering course. Unites design of drinking water and waste-water treatment plants. Applies microbiology, water chemistry principles, and units of treatment-plant design techniques. Prerequisite: CENE 280 and CENE 333 with grades greater than or equal to C

7. Is course currently cross-listed or co-convened? yes no
If yes, list course _____
Will this continue? _____
8. Is course an elective? or required for an academic plan/subplan?
If required, for what academic plan/subplan? Environmental Engr.
If required, also submit *Proposal for New Plan or Plan Change*.
9. Will other courses or academic units, be affected by this change? (Consider prerequisites, degree requirements, etc.) yes no
If yes, explain in the justification and provide supporting documentation from the affected departments.
10. Does this change affect community college articulation? yes No
If yes, explain how in the justification and provide supporting documentation from the affected institutions.
- Is the course a Common Course as defined by your Articulation Task Force? yes no
If yes, has the change been approved by the Articulation Task Force? Yes no
- If this course has been listed in the Course Equivalency Guide, should that listing
be left as is, or be revised?
If revised, how should it be revised? _____

FOR SECTION 11 ONLY COMPLETE WHAT IS CHANGING.

Only fill in what is changing.

If information is remaining the same, leave the section blank.

11. a. Proposed course subject /catalog number _____ b. Proposed units _____
- c. If subject/catalog number change, is there a course fee attached to the current subject/catalog number that needs to be moved? Yes No
If yes, please attach a Justification Form for Instructional Fees indicating the new course subject/catalog number change.
- d. Proposed to co-convene with _____ Date approved by UGC _____
(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented.)
- e. Proposed to cross-list with _____
(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)
- f. Proposed long course title _____
(max 100 characters including spaces)
- g. Proposed short course title _____
(max 30 characters including spaces)
- h. Proposed catalog course description (max. 30 words, excluding requisites)

Design of drinking water and waste-water treatment plants. Applies microbiology, water chemistry principles and includes treatment-plant design techniques, disinfection, and reuse.

- i. Proposed grading option: Letter grade Pass/Fail or Both
(If both, the course may only be offered one way for each respective section.)
- j. May course be repeated for additional units? yes no
j.1. If yes, maximum units allowed? _____
j.2. If yes, may course be repeated for additional units in the same term? (ex. BIO 300, PES 100)
yes no
- k. Please check ONE of the following that most appropriately describes the proposed course change(s):
Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research
Seminar Field Studies Independent Study Activity Supervision
- l. Proposed prerequisites (must be completed before) _____
- m. Proposed corequisites (must be completed with) _____
- n. If course has no requisites, will all sections of the course require: (If course has pre or co requisite, skip to question 12)
Instructor consent Department consent No consent

12. Justification for course change. Please indicate how past assessments of student learning prompted proposed changes.

As part of our preparation for an upcoming accreditation visit, we have reviewed all of our course descriptions. Course content has been modified gradually to reflect current practice in engineering. The proposed changes reflect the current content of the course.

13. Approvals

11/15/06

Department Chair/ Unit Head (if appropriate)

Date

Dec 7 2006

Chair of college curriculum committee

Date

7 Dec 06

Dean of college

Date

For Committee use only

1/16/07

For University Curriculum Committee

Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to college dean, department chair, and Academic Information Office.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR COURSE CHANGE

1. Is this a Liberal Studies or Diversity Course? Liberal Studies Diversity Both

2. Course change effective beginning of what term and year?
(ex. Spring 2008, Summer 2008) See effective dates schedule. Fall 2007

3. College CENS 4. Academic Unit CENE

5. Current course subject/catalog number CENE 436

6. Current catalog title, course description, and units. (*Copy and paste from current on-line academic catalog*).

STRUCTURAL STEEL DESIGN (3)

Tension members, compression members, flexural members, combined stresses, biaxial bending; heavy emphasis on connections; introduction to load and resistance factor design; computer applications. Prerequisite: CENE 376 with grade greater than or equal to C

7. Is course currently cross-listed or co-convened? yes no
If yes, list course _____
Will this continue? _____

8. Is course an elective? or required for an academic plan/subplan?
If required, for what academic plan/subplan? _____
If required, also submit *Proposal for New Plan or Plan Change*.

9. Will other courses or academic units, be affected by this change? (Consider prerequisites, degree requirements, etc.) yes no
If yes, explain in the justification and provide supporting documentation from the affected departments.

10. Does this change affect community college articulation? yes No
If yes, explain how in the justification and provide supporting documentation from the affected institutions.

Is the course a Common Course as defined by your Articulation Task Force? yes no
If yes, has the change been approved by the Articulation Task Force? Yes no

If this course has been listed in the Course Equivalency Guide, should that listing be left as is, or be revised?
If revised, how should it be revised? _____

FOR SECTION 11 ONLY COMPLETE WHAT IS CHANGING.

11. a. Proposed course subject /catalog number _____ b. Proposed units _____
- c. If subject/catalog number change, is there a course fee attached to the current subject/catalog number that needs to be moved? Yes No**
If yes, please attach a Justification Form for Instructional Fees indicating the new course subject/catalog number change.
- d. Proposed to co-convene with _____ Date approved by UGC _____**
(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented.)
- e. Proposed to cross-list with _____**
(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)
- f. Proposed long course title _____**
(max 100 characters including spaces)
- g. Proposed short course title _____**
(max 30 characters including spaces)
- h. Proposed catalog course description (max. 30 words, excluding requisites)**

Only fill in what is changing.

If information is remaining the same, leave the section blank.


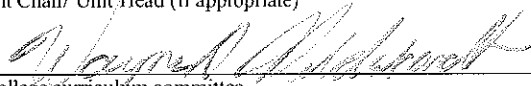
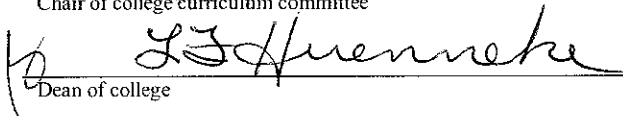

Tension members, compression members, flexural members, combined stresses, and introduction to load and resistance factor design and computer applications.

- i. Proposed grading option: Letter grade Pass/Fail or Both**
(If both, the course may only be offered one way for each respective section.)
- j. May course be repeated for additional units? yes no**
- j.1. If yes, maximum units allowed? _____**
- j.2. If yes, may course be repeated for additional units in the same term? (ex. BIO 300, PES 100)**
yes no
- k. Please check ONE of the following that most appropriately describes the proposed course change(s):**
- Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research
- Seminar Field Studies Independent Study Activity Supervision
- l. Proposed prerequisites (must be completed before) _____**
- m. Proposed corequisites (must be completed with) _____**
- n. If course has no requisites, will all sections of the course require: (If course has pre or co requisite, skip to question 12)**
Instructor consent Department consent No consent

12. Justification for course change. Please indicate how past assessments of student learning prompted proposed changes.

As part of our preparation for an upcoming accreditation visit, we have reviewed all of our course descriptions. Course content has been modified gradually to reflect current practice in engineering. The proposed changes reflect the current content of the course.

13. Approvals

	11/15/06
Department Chair/ Unit Head (if appropriate)	Date
	Dec 7, 2006
Chair of college curriculum committee	Date
	7 Dec 06
Dean of college	Date
For Committee use only	
	1/16/07
For University Curriculum Committee	Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to college dean, department chair, and Academic Information Office.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR COURSE CHANGE

1. Is this a Liberal Studies or Diversity Course? Liberal Studies Diversity Both

2. Course change effective beginning of what term and year?
(ex. Spring 2008, Summer 2008) See effective dates schedule. Fall 2007

3. College CENS 4. Academic Unit CENE

5. Current course subject/catalog number CENE 437

6. Current catalog title, course description, and units. (Copy and paste from current on-line academic catalog).

WOOD BUILDING DESIGN (3)

Building structures using masonry walls, wooden roofs, and wooden floor systems. Lateral load concepts, diaphragms, connections, shear walls and framing. Prerequisite: CENE 253 with grade greater than or equal to C

7. Is course currently cross-listed or co-convened? yes no
If yes, list course _____
Will this continue? _____

8. Is course an elective? or required for an academic plan/subplan?
If required, for what academic plan/subplan? _____
If required, also submit *Proposal for New Plan or Plan Change*.

9. Will other courses or academic units, be affected by this change? (Consider prerequisites, degree requirements, etc.) yes no
If yes, explain in the justification and provide supporting documentation from the affected departments.

10. Does this change affect community college articulation? yes No
If yes, explain how in the justification and provide supporting documentation from the affected institutions.

Is the course a Common Course as defined by your Articulation Task Force? yes no
If yes, has the change been approved by the Articulation Task Force? Yes no

If this course has been listed in the Course Equivalency Guide, should that listing be left as is, or be revised?

If revised, how should it be revised? _____

FOR SECTION 11 ONLY COMPLETE WHAT IS CHANGING.

11. a. Proposed course subject/catalog number _____ b. Proposed units _____
- c. If subject/catalog number change, is there a course fee attached to the current subject/catalog number that needs to be moved? Yes No**
If yes, please attach a Justification Form for Instructional Fees indicating the new course subject/catalog number change.
- d. Proposed to co-convene with _____ Date approved by UGC _____
(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented.)
- e. Proposed to cross-list with _____
(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)
- f. Proposed long course title _____
(max 100 characters including spaces)
- g. Proposed short course title _____
(max 30 characters including spaces)
- h. Proposed catalog course description (max. 30 words, excluding requisites)

Only fill in what is changing.

If information is remaining the same, leave the section blank.

Building structures and wood system design. Lateral load concepts, diaphragms, connections, shear walls and framing.

- i. Proposed grading option: Letter grade Pass/Fail or Both
(If both, the course may only be offered one way for each respective section.)
- j. May course be repeated for additional units? yes no
- j.1. If yes, maximum units allowed? _____
- j.2. If yes, may course be repeated for additional units in the same term? (ex. BIO 300, PES 100)
yes no
- k. Please check ONE of the following that most appropriately describes the proposed course change(s):
- Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research
- Seminar Field Studies Independent Study Activity Supervision
- l. Proposed prerequisites (must be completed before) _____
- m. Proposed corequisites (must be completed with) _____
- n. If course has no requisites, will all sections of the course require: (If course has pre or co requisite, skip to question 12)
Instructor consent Department consent No consent

12. Justification for course change. Please indicate how past assessments of student learning prompted proposed changes.

As part of our preparation for an upcoming accreditation visit, we have reviewed all of our course descriptions. This course description reflects a change in content due to creation of a separate course in masonry design, permitting this course to focus on wood design. The course title was changed last year, but by an oversight the course description was not updated. The proposed changes reflect the current content of the course.

13. Approvals

11/15/06

Department Chair/ Unit Head (if appropriate)

Date

Dec 7, 2006

Chair of college curriculum committee

Date

7 Dec 06

Dean of college

Date

For Committee use only

1/16/07

For University Curriculum Committee

Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to college dean, department chair, and Academic Information Office.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR COURSE CHANGE

1. Is this a Liberal Studies or Diversity Course? Liberal Studies Diversity Both

2. Course change effective beginning of what term and year?
(ex. Spring 2008, Summer 2008) *See effective dates schedule.*

Fall 2007

3. College CENS

4. Academic Unit CENE

5. Current course subject/catalog number CENE 438

6. Current catalog title, course description, and units. (*Copy and paste from current on-line academic catalog.*)

REINFORCED CONCRETE DESIGN (3)

Working stress and strength design concepts, beams, columns, slabs, retaining walls, single and combined footings. Computer applications. Prerequisite: CENE 376 with grade greater than or equal to C or Corequisite: CENE 376

7. Is course currently cross-listed or co-convened? yes no

If yes, list course

Will this continue? _____

8. Is course an elective? or required for an academic plan/subplan?

If required, for what academic plan/subplan? Civil Engr.

If required, also submit *Proposal for New Plan or Plan Change.*

9. Will other courses or academic units, be affected by this change? (Consider prerequisites, degree requirements, etc.) yes no

If yes, explain in the justification and provide supporting documentation from the affected departments.

10. Does this change affect community college articulation? yes No

If yes, explain how in the justification and provide supporting documentation from the affected institutions.

Is the course a Common Course as defined by your Articulation Task Force? yes no

If yes, has the change been approved by the Articulation Task Force? Yes no

If this course has been listed in the *Course Equivalency Guide*, should that listing be left as is, or be revised?

If revised, how should it be revised?

FOR SECTION 11 ONLY COMPLETE WHAT IS CHANGING.

11. a. Proposed course subject /catalog number _____ b. Proposed units _____
- Only fill in what is changing.**
- If information is remaining the same, leave the section blank.**
- c. If subject/catalog number change, is there a course fee attached to the current subject/catalog number that needs to be moved? Yes No
If yes, please attach a Justification Form for Instructional Fees indicating the new course subject/catalog number change.
- d. Proposed to co-convene with _____ Date approved by UGC _____
(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented.)
- e. Proposed to cross-list with _____
(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)
- f. Proposed long course title _____
(max 100 characters including spaces)
- g. Proposed short course title _____
(max 30 characters including spaces)
- h. Proposed catalog course description (max. 30 words, excluding requisites)

**Working stress and strength design concepts, beams, columns, slabs, retaining walls, and footings.
Computer applications.**

- i. Proposed grading option: Letter grade Pass/Fail or Both
(If both, the course may only be offered one way for each respective section.)
- j. May course be repeated for additional units? yes no
j.1. If yes, maximum units allowed? _____
j.2. If yes, may course be repeated for additional units in the same term? (ex. BIO 300, PES 100)
yes no
- k. Please check ONE of the following that most appropriately describes the proposed course change(s):
Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research
Seminar Field Studies Independent Study Activity Supervision
- l. Proposed prerequisites (must be completed before) _____
- m. Proposed corequisites (must be completed with) _____
- n. If course has no requisites, will all sections of the course require: (If course has pre or co requisite, skip to question 12)
Instructor consent Department consent No consent

12. Justification for course change. Please indicate how past assessments of student learning prompted proposed changes.

As part of our preparation for an upcoming accreditation visit, we have reviewed all of our course descriptions. Course content has been modified gradually to reflect current practice in engineering. The proposed changes reflect the current content of the course.

13. Approvals

Department Chair/ Unit Head (if appropriate)

11/15/06

Date

Chair of college curriculum committee

Dec 7 2006

Date

Dean of college

7 Dec 06

Date

For Committee use only

For University Curriculum Committee

1/16/07

Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to college dean, department chair, and Academic Information Office.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR COURSE CHANGE

1. Is this a Liberal Studies or Diversity Course? Liberal Studies Diversity Both

2. Course change effective beginning of what term and year?
(ex. Spring 2008, Summer 2008) See effective dates schedule. Fall 2007

3. College CENS 4. Academic Unit CENE

5. Current course subject/catalog number CENE 476

6. Current catalog title, course description, and units. (Copy and paste from current on-line academic catalog).

EGR DESIGN PROC LAB (1)

Involves forming design teams, selecting projects for CENE 486C with sponsor interaction, completing a project proposal, and having it accepted by the sponsor. Prerequisite: CENE 386W or CENE 386 with grade greater than or equal to C

7. Is course currently cross-listed or co-convened? yes no
If yes, list course _____
Will this continue? _____

8. Is course an elective? or required for an academic plan/subplan?
If required, for what academic plan/subplan? Civil Engr., Environmental Engr.
If required, also submit *Proposal for New Plan or Plan Change*.

9. Will other courses or academic units, be affected by this change? (Consider prerequisites, degree requirements, etc.) yes no
If yes, explain in the justification and provide supporting documentation from the affected departments.

10. Does this change affect community college articulation? yes No
If yes, explain how in the justification and provide supporting documentation from the affected institutions.

Is the course a Common Course as defined by your Articulation Task Force? yes no
If yes, has the change been approved by the Articulation Task Force? Yes no

If this course has been listed in the Course Equivalency Guide, should that listing be left as is, or be revised?

If revised, how should it be revised? Revise course title.

FOR SECTION 11 ONLY COMPLETE WHAT IS CHANGING.

11. a. Proposed course subject /catalog number _____ b. Proposed units _____
c. If subject/catalog number change, is there a course fee attached to the current subject/catalog number that needs to be moved? Yes No
If yes, please attach a Justification Form for Instructional Fees indicating the new course subject/catalog number change.

If information is remaining the same, leave the section blank.

d. Proposed to co-convene with _____ Date approved by UGC _____
(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented.)

e. Proposed to cross-list with _____
(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)

f. Proposed long course title ENGINEERING DESIGN: CAPSTONE PREPARATION
(max 100 characters including spaces)

g. Proposed short course title ENGR DESIGN: CAPSTONE PREP
(max 30 characters including spaces)

h. Proposed catalog course description (max. 30 words, excluding requisites)

Involves forming design teams, selecting projects with sponsor interaction, and completing a project proposal accepted by the sponsor. Must be taken in same academic year as CENE 486C.

i. Proposed grading option: Letter grade Pass/Fail or Both
(If both, the course may only be offered one way for each respective section.)

j. May course be repeated for additional units? yes no

j.1. If yes, maximum units allowed? _____

j.2. If yes, may course be repeated for additional units in the same term? (ex. BIO 300, PES 100)
yes no

k. Please check ONE of the following that most appropriately describes the proposed course change(s):

Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research
Seminar Field Studies Independent Study Activity Supervision

l. Proposed prerequisites (must be completed before) _____

m. Proposed corequisites (must be completed with) _____

n. If course has no requisites, will all sections of the course require: (If course has pre or co requisite, skip to question 12)
Instructor consent Department consent No consent

12. Justification for course change. Please indicate how past assessments of student learning prompted proposed changes.

The course title has been confusing and did not really reflect the purpose of the course, which is to prepare students for their capstone course. The modification to the course title addresses this directly. The description was modified to clarify for students that they needed to take this course in the same academic year as the capstone course.

13. Approvals

11/15/06

Department Chair/ Unit Head (if appropriate)

Date

Dec 7, 2006

Chair of college curriculum committee

Date

7 Dec 06

Dean of college

Date

For Committee use only

1/16/07

For University Curriculum Committee

Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to college dean, department chair, and Academic Information Office.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR COURSE CHANGE

1. Is this a Liberal Studies or Diversity Course? Liberal Studies Diversity Both

2. Course change effective beginning of what term and year?
(ex. Spring 2008, Summer 2008) See effective dates schedule. Fall 2007

3. College CENS 4. Academic Unit CENE

5. Current course subject/catalog number CENE 486C

6. Current catalog title, course description, and units. (Copy and paste from current on-line academic catalog).

ENGINEERING DESIGN (3)

Involves design methodology and decision making and preparing team design projects that culminate in oral and written reports. Must be taken in the year in which you graduate. 2 hrs. lecture, 3 hrs. lab. Prerequisite: (CENE 386W or CENE 386) and CENE 476 CAP

7. Is course currently cross-listed or co-convened? yes no
If yes, list course _____
Will this continue? _____

8. Is course an elective? or required for an academic plan/subplan?
If required, for what academic plan/subplan? Civil Engr., Environmental Engr.
If required, also submit *Proposal for New Plan or Plan Change*.

9. Will other courses or academic units, be affected by this change? (Consider prerequisites, degree requirements, etc.) yes no
If yes, explain in the justification and provide supporting documentation from the affected departments.

10. Does this change affect community college articulation? yes No
If yes, explain how in the justification and provide supporting documentation from the affected institutions.

Is the course a Common Course as defined by your Articulation Task Force? yes no
If yes, has the change been approved by the Articulation Task Force? Yes no

If this course has been listed in the Course Equivalency Guide, should that listing be left as is, or be revised?
If revised, how should it be revised? _____

FOR SECTION 11 ONLY COMPLETE WHAT IS CHANGING.

Only fill in what is changing.

If information is remaining the same, leave the section blank.

11. a. Proposed course subject /catalog number _____ b. Proposed units _____
- c. If subject/catalog number change, is there a course fee attached to the current subject/catalog number that needs to be moved? Yes No
If yes, please attach a Justification Form for Instructional Fees indicating the new course subject/catalog number change.
- d. Proposed to co-convene with _____ Date approved by UGC _____
(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented.)
- e. Proposed to cross-list with _____
(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)
- f. Proposed long course title _____
(max 100 characters including spaces)
- g. Proposed short course title _____
(max 30 characters including spaces)
- h. Proposed catalog course description (max. 30 words, excluding requisites)
- i. Proposed grading option: Letter grade Pass/Fail or Both
(If both, the course may only be offered one way for each respective section.)
- j. May course be repeated for additional units? yes no
j.1. If yes, maximum units allowed? _____
j.2. If yes, may course be repeated for additional units in the same term? (ex. BIO 300, PES 100)
yes no
- k. Please check ONE of the following that most appropriately describes the proposed course change(s):
Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research
Seminar Field Studies Independent Study Activity Supervision
- l. Proposed prerequisites (must be completed before) (CENE 386W or CENE 386) and CENE 476 with grades greater than or equal to C
- m. Proposed corequisites (must be completed with) _____
- n. If course has no requisites, will all sections of the course require: (If course has pre or co requisite, skip to question 12)
Instructor consent Department consent No consent

12. Justification for course change. Please indicate how past assessments of student learning prompted proposed changes.

Prerequisite has been modified to reflect departmental requirement for minimum grade of C or better in requisite courses.

13. Approvals

11/15/06

Department Chair/ Unit Head (if appropriate)

Date

12/2/06

Chair of college curriculum committee

Date

7 Dec 06

Dean of college

Date

For Committee use only

11/16/07

For University Curriculum Committee

Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to college dean, department chair, and Academic Information Office.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR COURSE CHANGE

1. Is this a Liberal Studies or Diversity Course? Liberal Studies Diversity Both
2. Course change effective beginning of what term and year?
(ex. Spring 2008, Summer 2008) See effective dates schedule. Fall 2007
3. College Engineering and Natural Sciences 4. Academic Unit Mathematics and Statistics
5. Current course subject/catalog number STA 473C
6. Current catalog title, course description, and units. (*Copy and paste from current on-line academic catalog.*)
STA 473C INTRODUCTION TO MATHEMATICAL STATISTICS I (3)
Elementary combinatorial probability theory, random variables, probability distributions, and moments.
Prerequisite: MAT 137 with grade greater than or equal to C CAP
7. Is course currently cross-listed or co-convened? yes no
If yes, list course _____
Will this continue? _____
8. Is course an elective? or required for an academic plan/subplan?
If required, for what academic plan/subplan? BS- Mathematics and BS-Mathematics
(Extended Major)
If required, also submit *Proposal for New Plan or Plan Change.*
9. Will other courses or academic units, be affected by this change? (Consider prerequisites, degree requirements, etc.) yes no
If yes, explain in the justification and provide supporting documentation from the affected departments.
Environmental Science is affected but the change is only to add an alternate course as a prerequisite.
10. Does this change affect community college articulation? yes no
If yes, explain how in the justification and provide supporting documentation from the affected institutions.
Is the course a Common Course as defined by your Articulation Task Force? yes no
If yes, has the change been approved by the Articulation Task Force? yes no
If this course has been listed in the Course Equivalency Guide, should that listing be left as is, or be revised?
If revised, how should it be revised? _____

FOR SECTION 11 ONLY COMPLETE WHAT IS CHANGING.

11. a. Proposed course subject /catalog number _____ b. Proposed units _____
- c. If subject/catalog number change, is there a course fee attached to the current subject/catalog number that needs to be moved?** Yes No
If yes, please attach a Justification Form for Instructional Fees indicating the new course subject/catalog number change.
- d. Proposed to co-convene with _____ Date approved by UGC _____
(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented.)
- e. Proposed to cross-list with _____
(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)
- f. Proposed long course title _____
(max 100 characters including spaces)
- g. Proposed short course title _____
(max 30 characters including spaces)
- h. Proposed catalog course description (max. 30 words, excluding requisites)
- i. Proposed grading option: Letter grade Pass/Fail or Both
(If both, the course may only be offered one way for each respective section.)
- j. May course be repeated for *additional* units? yes no
j.1. If yes, maximum units allowed? _____
j.2. If yes, may course be repeated for additional units in the same term? (ex. BIO 300, PES 100)
yes no
- k. Please check **ONE** of the following that most appropriately describes the proposed course change(s):
Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research
Seminar Field Studies Independent Study Activity Supervision
- l. Proposed prerequisites (must be completed before) _____
MAT 238 with grade greater than or equal to C
- m. Proposed corequisites (must be completed with) _____
- n. If course has no requisites, will all sections of the course require: *(If course has pre or co requisite, skip to question 12)*
Instructor consent Department consent No consent

Only fill in what is changing.

If information is remaining the same, leave the section blank.

12. Justification for course change. Please indicate how past assessments of student learning prompted proposed changes.

The increase in prerequisite from Calculus II to Calculus III will ensure that all students have had some familiarity with double integrals. In reality, all students requiring STA 473C must also take MAT 238 and almost all currently enrolled in STA 473C have had MAT 238. The change provides a better guideline for the sequencing of courses.

13. Approvals

Janet M. McShane 20 Nov 2006
Department Chair/Unit Head (if appropriate) Date

Wesley A. Wildenbush 13-01-2006
Chair of college curriculum committee Date

[Signature] 7 Dec 06
Dean of college Date

For Committee use only

[Signature] 1/16/07
For University Curriculum Committee Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to college dean, department chair, and Academic Information Office.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR NEW ACADEMIC PLAN, PLAN CHANGE, OR PLAN DELETION

1. College Social and Behavioral Sciences
2. Academic Unit Applied Indigenous Studies
3. Academic Plan Name Native American Studies Minor
4. Subplan (if applicable)? _____
5. Effective Date FALL 2007
6. Is this proposal for a :
(Please refer to Plan and Subplan definitions)
- | | | |
|--------------------------------------|---|---|
| <input type="checkbox"/> New Plan | <input checked="" type="checkbox"/> Plan Change | <input type="checkbox"/> Plan Deletion |
| <input type="checkbox"/> New Subplan | <input type="checkbox"/> Subplan Change | <input type="checkbox"/> Subplan Deletion |

7.

For Plan Changes, place the existing catalog text in this column. Please copy and paste the text directly from the *current* on line academic catalog:
(<http://www4.nau.edu/aio/AcademicCatalog/academiccatalogs.htm>)
Be sure you include all catalog text that pertains to this plan change

For New Plans, leave this column blank.

To complete this 18-unit minor, you must earn a grade of C or better in each of the following:

- AIS 101 and 202 (6 units)
- 12 units from AIS 201 and 210; ANT 303, 306, 351, 406, 459, and 517; BME 570; ENG 345; HIS 280 and 486; MUS 365; NAV 101, 102, 201, 202, 303, 304W, 405, and 406; REL 380 and 482C; and SOC 315 and other courses approved by the department chair

Be aware that some of the courses required for your minor may have prerequisites that you must also take. Check the courses in the appropriate subject.

Please note that you cannot take this minor if you major in applied indigenous studies. For further information, contact the plan advisor.

Click here for more information about Native American courses.

Show the proposed changes in this column. Please BOLD the changes, to differentiate from what is not changing.

(Describe the changed requirements under headings that match those used in the left column. Please be aware that if the units are not totaled correctly, the catalog editor will adjust them accordingly.)

We designed this minor to provide you with a multidisciplinary understanding of Native American histories, religions, and cultures in the past and present. For additional information, contact the plan advisor.

To complete this 18-unit minor, you must earn a grade of C or better in each of the following:

- AIS 101 and 202 (6 units)
- 12 units from AIS 201, 210, **350, 450, 470**; ANT **205**, 303, 306, 351, 406, 459, or 517; **ARH 361, 365, 440***, BME 570; ENG 345*; HIS 280, **293, 413, 415** or 486; MUS 365; NAV 101, 102, 201, 202, 303, 304W, 405, or 406; REL 380 or 482C; SOC 315; **WST 394*** or other courses approved by the department chair

*** Special Topics related to Native American Studies**

Be aware that some of the courses required for your minor may have prerequisites that you must also take. Check the courses in the appropriate subject.

Please note that you cannot take this minor if you major in applied indigenous studies. For further information, contact the plan advisor.

Click here for more information about Native American courses.

8. For undergraduate plans, will this requirement be a student individualized plan*? no yes
*A Student Individualized Plan is an academic requirement that varies by student, such as the 15-unit BA/IS focus, for which coursework requirements are established by the student in consultation with the advisor.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR NEW ACADEMIC PLAN, PLAN CHANGE, OR PLAN DELETION

1. College College of Social and Behavioral Sciences
2. Academic Unit Applied Indigenous Studies
3. Academic Plan Name B.S. Applied Indigenous Studies (extended major)
4. Subplan (if applicable)? Emphasis Areas
5. Effective Date FALL 2007
6. Is this proposal for a : New Plan Plan Change Plan Deletion
(Please refer to Plan and Subplan definitions) New Subplan Subplan Change Subplan Deletion

7.

For Plan Changes, place the existing catalog text in this column. Please copy and paste the text directly from the current on line academic catalog:

(<http://www4.nau.edu/aiio/AcademicCatalog/academiccatalogs.htm>)

Be sure you include all catalog text that pertains to this plan change

For New Plans, leave this column blank.

B.S. Applied Indigenous Studies (extended major)

To earn this degree, you must complete at least 120 units of coursework, which we describe in the sections that follow:

- at least 35 units of liberal studies requirements.

Be aware that you may not use courses with an AIS prefix to satisfy these liberal studies requirements.

- at least 69 units of major requirements
- elective courses, if needed, to reach an overall total of at least 120 units

MAJOR REQUIREMENTS

You must take at least the following 69 units with a grade of C or better in each course:

- required core courses: AIS 101, 201, 202, 210, 304, 350, 404, and 408 (24 units)
- AIS 301W, which meets NAU's junior writing requirement (3 units)
- one of the following, chosen with your advisor's approval: ECO 201, CJ 355, COM 305, JLS 440C, NUR 390, POS 303, PSY 230, SS 355, SOC 355W and 365, STA 270, and CTE 340W (3-4 units)
- 12 units from AIS 232, 450, and 470; AIS 320 or POS 320; ANT 205, 301, 303, 306, 307, 351, 365, 406, 459, and 460; ARH 145; BIO 479; BME 570; CJ 415; COM 301; ECO 425; ES 191, 215, and 356; FOR 270 and 370; HIS 280, 293, 380, 381, 413, 414, 415, 486, and 488; NAV 101, 102, 201, 202, 303, 304W, 311, 312, 321, 405, and 406; REL 201, 380, and 482C; SC 323 and 477; SOC 315; and other courses approved by the department chair, with no more than 4 units in any one course prefix
- AIS 490C, which meets NAU's senior capstone requirement (3 units)
- 24-27 units in one of the following cross-disciplinary emphases

Show the proposed changes in this column. Please BOLD the changes, to differentiate from what is not changing.

(Describe the changed requirements under headings that match those used in the left column. Please be aware that if the units are not totaled correctly, the catalog editor will adjust them accordingly.)

B.S. Applied Indigenous Studies (extended major)

To earn this degree, you must complete at least 120 units of coursework, which we describe in the sections that follow:

- at least 35 units of liberal studies requirements.

Be aware that you may not use courses with an AIS prefix to satisfy these liberal studies requirements.

- at least 54-55 units of major requirements
- elective courses, if needed, to reach an overall total of at least 120 units

MAJOR REQUIREMENTS

You must take at least the following 54-55 units with a grade of C or better in each course:

- required core courses: AIS 101, 201, 202, 210, 304, 350, 404, and 408 (24 units)
- AIS 301W, which meets NAU's junior writing requirement (3 units)
- one of the following, chosen with your advisor's approval: ECO 201, CJ 355, COM 305, JLS 440C, NUR 390, POS 303, PSY 230, SS 355, SOC 355W and 365, STA 270, and CTE 340W (3-4 units)
- ~~12 units from AIS 232, 450, and 470; AIS 320 or POS 320; ANT 205, 301, 303, 306, 307, 351, 365, 406, 459, and 460; ARH 145; BIO 479; BME 570; CJ 415; COM 301; ECO 425; ES 191, 215, and 356; FOR 270 and 370; HIS 280, 293, 380, 381, 413, 414, 415, 486, and 488; NAV 101, 102, 201, 202, 303, 304W, 311, 312, 321, 405, and 406; REL 201, 380, and 482C; SC 323 and 477; SOC 315; and other courses approved by the department chair, with no more than 4 units in any one course prefix~~
- AIS 490C, which meets NAU's senior capstone requirement (3 units)
- 21 units in one of the following cross-disciplinary emphases

Applied Indigenous Cultural Resource Management Emphasis

For this emphasis, you take the following 25 units with a grade of C or better in each course:

- AIS 232 (3 units)
- ANT 102, 250, 351, 359W, 365, 459, and 460 (22 units)

Applied Indigenous Economic Development Emphasis

For this emphasis, you take the following 27 units with a grade of C or better in each course:

- ECO 284, 285, 325, 356, and 425 (15 units)
- ACC 255, FIN 303, MGT 303, and MKT 303 (12 units)

Applied Indigenous Environmental Management Emphasis

For this emphasis, you take the following 24 units with a grade of C or better in each course:

- PL 302, POS 359, and ECO 325 (9 units)
- 15 units from PL 402W, POS 320 or AIS 320, and POS 224, 250, 325, 326, 327, 344, 345, and 445

Applied Indigenous Environmental Science Emphasis

For this emphasis, you take the following 25 units with a grade of C or better in each course:

- AIS 380 (3 units)
- ENV 230, 280, 330, and 385W (16 units)
- FOR 230 (3 units)
- POS 359 (3 units)

Applied Indigenous Knowledge Emphasis

For this emphasis, you take the following 24 units with a grade of C or better in each course:

- FOR 230, 270, and 370; and AIS 450 and 470 (15 units)
- 9 units from FOR 222, 240, 282, and 382; HUM 373; PL 302; POS 344 and 359; and REL 380 and 391

Applied Indigenous Policy Administration Emphasis

For this emphasis, you take the following 27 units with a grade of C or better in each course:

- AIS 320; POS 224, 241, and 250; and ECO 425 (15 units)
- PL 201 or PR 272 (3 units)
- 9 units from POS 316, 317, 325, 326, 344, 345, 359, and 455 and CJ 101, and 415

Applied Indigenous Cultural Resource Management Emphasis

For this emphasis, you take the following 21 units with a grade of C or better in each course:

- AIS 232 (3 units)
- 18 units from ANT 102, 250, 351, 359W, 365, 459, or 460

Applied Indigenous Economic Development Emphasis

For this emphasis, you take the following 21 units with a grade of C or better in each course:

- ECO 284, 285, 325, ~~356~~ and 425 (12 units)
- ACC 255, FIN 303 and MGT 303 ~~and MKT 303~~ (9 units)

Applied Indigenous Environmental Management Emphasis

For this emphasis, you take the following 21 units with a grade of C or better in each course:

- ECO 325, ENV 181, ~~PL 302~~ and POS 359 (9 units)
- 12 units from AIS 320 or POS 320, PL 302, or 402W, POS 224, 250, ~~325, 326, 327,~~ 344, or 345 ~~and 445~~

Applied Indigenous Environmental Science Emphasis

For this emphasis, you take the following 21 units with a grade of C or better in each course:

- AIS 380 (3 units)
- 12 units from ENV 181, 230, 280, 330, or 385W
- FOR 230 (3 units)
- POS 359 (3 units)

Applied Indigenous Knowledge Emphasis

For this emphasis, you take the following 21 units with a grade of C or better in each course:

- FOR 230, 270, and 370; and AIS 450 and 470 (15 units)
- 6 units from FOR 222, 240, ~~282,~~ 380 or 382, ~~HUM 373,~~ PL 302, POS 344 or 359, REL 380 or 391

Applied Indigenous Policy Administration Emphasis

For this emphasis, you take the following 21 units with a grade of C or better in each course:

- AIS 320; POS 224, 241, and 250; and ECO 425 (15 units)
- PL 201 or PR 272 (3 units)
- 3 units from POS 316, 317, 325, 326, 344, 345, 359, or 455, CJ 101, ~~375, 376~~ or 415

<p>Applied Indigenous Politics and Movements Emphasis For this emphasis, you take the following 24 units with a grade of C or better in each course:</p> <ul style="list-style-type: none"> • PL 302, POS 359, and ECO 325 (9 units) • 15 units from PL 306, POS 320 or AIS 320, and POS 250, 314, 344, 356, 361, 455, and 480 	<p>Applied Indigenous Politics and Movements Emphasis For this emphasis, you take the following 21 units with a grade of C or better in each course:</p> <ul style="list-style-type: none"> • PL 302, POS 359, and ECO 325 (9 units) • 12 units from PL 306, POS 320 or AIS 320, POS 250, 314, 344, 356, 361, 455, or 480
--	---

8. For undergraduate plans, will this requirement be a student individualized plan*? no yes

*A *Student Individualized Plan* is an academic requirement that varies by student, such as the 15-unit BAILS focus, for which coursework requirements are established by the student in consultation with the advisor.

If yes, the academic unit listed at the top of this form hereby takes responsibility for providing complete information about each student's individual requirements for the degree audit system.

9. For undergraduate plans, will a milestone** be used to:

- a. verify satisfactory completion of a non course requirement.
- b. indicate admission to a major.
- c. will not be used.

**A *Milestone* is used to record noncourse requirements, such as the HRM 800-hour work experience requirement or admission to Business Major status.

If yes, the academic unit listed at the top of this form hereby takes responsibility for maintaining the milestone and keeping individual student records up to date.

10. Please list the Learning Outcomes of the Plan/Subplan (see degree major assessment webpage - <http://www4.nau.edu/assessment/main/degree/degree.htm>) There are no changes to the assessment models for Applied Indigenous Studies.

11. Justification for proposal. Please indicate how past assessments of student learning prompted proposed changes.

Reducing the number of required courses for the extended major from 25 to 21 units for all the emphasis areas are justified with the addition of new courses and elimination of other courses that do not diminish the breadth of the overall coursework requirement.

The AIS faculty is revising the assessment plan for the Plan/Subplan this academic year.

12. If this academic plan/subplan will require additional faculty, space, or equipment, how will these requirements be satisfied?

No

13. Will this academic plan/subplan affect other majors, liberal studies course offerings, plans/subplans, curricula, or enrollment at NAU?

If so, attach supporting documentation from the affected departments/units and college dean.

No

14. Will present library holdings support this academic plan/subplan?

Yes

Certifications

Octaviano V. Tzuc November 28 2006
Department Chair/ Unit Head (if appropriate) _____ Date _____

[Signature] 11-30-06
Chair of college curriculum committee _____ Date _____

Dean of college _____ Date _____

For committee use only
[Signature] 1/16/07
For University Curriculum Committee _____ Date _____

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to the college dean, department chair, and Academic Information Office after approval.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR NEW ACADEMIC PLAN, PLAN CHANGE, OR PLAN DELETION

1. College College of Social and Behavioral Sciences

2. Academic Unit Applied Indigenous Studies

3. Academic Plan Name B.A. Applied Indigenous Studies (extended major)

4. Subplan (if applicable)? Emphasis Areas

5. Effective Date FALL 2007

6. Is this proposal for a : New Plan Plan Change Plan Deletion
(Please refer to Plan and Subplan definitions) New Subplan Subplan Change Subplan Deletion

7.

For Plan Changes, place the existing catalog text in this column. Please copy and paste the text directly from the current on line academic catalog:

(<http://www4.nau.edu/aio/AcademicCatalog/academiccatalogs.htm>)

Be sure you include all catalog text that pertains to this plan change

For New Plans, leave this column blank.

B.A. Applied Indigenous Studies (extended major)

To earn this degree, you must complete at least 120 units of coursework, which we describe in the sections that follow:

- at least 35 units of liberal studies requirements. Be aware that you may not use courses with an AIS prefix to satisfy these liberal studies requirements.
- at least 66 units of major requirements
- at least 16 units of language requirements
- elective courses, if needed, to reach an overall total of at least 120 units

Major Requirements

You must take at least the following 66 units with a grade of C or better in each course:

- required core courses: AIS 101, 201, 202, 210, 304, 350, 404, and 408 (24 units)
- AIS 301W, which meets NAU's junior writing requirement (3 units)
- one of the following, chosen with your advisor's approval: ECO 201, CJ 355, COM 305, JLS 440C, NUR 390, POS 303, PSY 230, SS 355, SOC 355W and 365, STA 270, and CTE 340W (3-4 units)
- 9 units from AIS 232, 450, and 470; AIS 320 or POS 320; ANT 205, 301, 303, 306, 307, 351, 365, 406, 459, and 460; ARH 145; BIO 479; BME 570; CJ 415; COM 301; ECO 425; ES 191, 215, and 356; FOR 270 and 370; HIS 280, 293, 380, 381, 413, 414, 415, 486, and 488; NAV 101, 102, 201, 202, 303, 304W, 311, 312, 321, 405, and 406; REL 201, 380, and 482C; SC 323 and 477; SOC 315; and other courses approved by the department chair, with no more than 4 units in any one course prefix
- AIS 490C, which meets NAU's senior capstone requirement (3 units)
- 24-27 units in one of the following cross-disciplinary emphases

Show the proposed changes in this column. Please BOLD the changes, to differentiate from what is not changing.

(Describe the changed requirements under headings that match those used in the left column. Please be aware that if the units are not totaled correctly, the catalog editor will adjust them accordingly.)

B.A. Applied Indigenous Studies (extended major)

To earn this degree, you must complete at least 120 units of coursework, which we describe in the sections that follow:

- at least 35 units of liberal studies requirements. Be aware that you may not use courses with an AIS prefix to satisfy these liberal studies requirements.
- at least **54-55** units of major requirements
- at least 16 units of language requirements
- elective courses, if needed, to reach an overall total of at least 120 units

Major Requirements

You must take at least the following **54-55** units with a grade of C or better in each course:

- required core courses: AIS 101, 201, 202, 210, 304, 350, 404, and 408 (24 units)
- AIS 301W, which meets NAU's junior writing requirement (3 units)
- one of the following, chosen with your advisor's approval: ECO 201, CJ 355, COM 305, JLS 440C, NUR 390, POS 303, PSY 230, SS 355, SOC 355W and 365, STA 270, and CTE 340W (3-4 units)
- ~~9 units from AIS 232, 450, and 470; AIS 320 or POS 320; ANT 205, 301, 303, 306, 307, 351, 365, 406, 459, and 460; ARH 145; BIO 479; BME 570; CJ 415; COM 301; ECO 425; ES 191, 215, and 356; FOR 270 and 370; HIS 280, 293, 380, 381, 413, 414, 415, 486, and 488; NAV 101, 102, 201, 202, 303, 304W, 311, 312, 321, 405, and 406; REL 201, 380, and 482C; SC 323 and 477; SOC 315; and other courses approved by the department chair, with no more than 4 units in any one course prefix~~
- AIS 490C, which meets NAU's senior capstone requirement (3 units)
- **21** units in one of the following cross-disciplinary emphases

Applied Indigenous Cultural Resource Management Emphasis

For this emphasis, you take the following 25 units with a grade of C or better in each course:

- AIS 232 (3 units)
- ANT 102, 250, 351, 359W, 365, 459, and 460 (22 units)

Applied Indigenous Economic Development Emphasis

For this emphasis, you take the following 27 units with a grade of C or better in each course:

- ECO 284, 285, 325, 356, and 425 (15 units)
- ACC 255, FIN 303, MGT 303, and MKT 303 (12 units)

Applied Indigenous Environmental Management Emphasis

For this emphasis, you take the following 24 units with a grade of C or better in each course:

- PL 302, POS 359, and ECO 325 (9 units)
- 15 units from PL 402W, POS 320 or AIS 320, and POS 224, 250, 325, 326, 327, 344, 345, and 445

Applied Indigenous Environmental Science Emphasis

For this emphasis, you take the following 25 units with a grade of C or better in each course:

- AIS 380 (3 units)
- ENV 230, 280, 330, and 385W (16 units)
- FOR 230 (3 units)
- POS 359 (3 units)

Applied Indigenous Knowledge Emphasis

For this emphasis, you take the following 24 units with a grade of C or better in each course:

- FOR 230, 270, and 370; and AIS 450 and 470 (15 units)
- 9 units from FOR 222, 240, 282, and 382; HUM 373; PL 302; POS 344 and 359; and REL 380 and 391

Applied Indigenous Policy Administration Emphasis

For this emphasis, you take the following 27 units with a grade of C or better in each course:

- AIS 320; POS 224, 241, and 250; and ECO 425 (15 units)
- PL 201 or PR 272 (3 units)
- 9 units from POS 316, 317, 325, 326, 344, 345, 359, and 455 and CJ 101, and 415

Applied Indigenous Cultural Resource Management Emphasis

For this emphasis, you take the following 21 units with a grade of C or better in each course:

- AIS 232 (3 units)
- 18 units from ANT 102, 250, 351, 359W, 365, 459, or 460

Applied Indigenous Economic Development Emphasis

For this emphasis, you take the following 21 units with a grade of C or better in each course:

- ECO 284, 285, 325, ~~356~~ and 425 (12 units)
- ACC 255, FIN 303 and MGT 303 ~~and MKT 303~~ (9 units)

Applied Indigenous Environmental Management Emphasis

For this emphasis, you take the following 21 units with a grade of C or better in each course:

- ECO 325, ENV 181, ~~PL 302~~ and POS 359 (9 units)
- 12 units from AIS 320 or POS 320, PL 302, or 402W, POS 224, 250, ~~325, 326, 327,~~ 344, or 345 ~~and 445~~

Applied Indigenous Environmental Science Emphasis

For this emphasis, you take the following 21 units with a grade of C or better in each course:

- AIS 380 (3 units)
- 12 units from ENV 181, 230, 280, 330, or 385W
- FOR 230 (3 units)
- POS 359 (3 units)

Applied Indigenous Knowledge Emphasis

For this emphasis, you take the following 21 units with a grade of C or better in each course:

- FOR 230, 270, and 370; and AIS 450 and 470 (15 units)
- 6 units from FOR 222, 240, ~~282,~~ 380 or 382, ~~HUM 373,~~ PL 302, POS 344 or 359, REL 380 or 391

Applied Indigenous Policy Administration Emphasis

For this emphasis, you take the following 21 units with a grade of C or better in each course:

- AIS 320; POS 224, 241, and 250; and ECO 425 (15 units)
- PL 201 or PR 272 (3 units)
- 3 units from POS 316, 317, 325, 326, 344, 345, 359, or 455, CJ 101, ~~375, 376~~ or 415

Applied Indigenous Politics and Movements Emphasis

For this emphasis, you take the following 24 units with a grade of C or better in each course:

- PL 302, POS 359, and ECO 325 (9 units)
- 15 units from PL 306, POS 320 or AIS 320, and POS 250, 314, 344, 356, 361, 455, and 480

Language Requirement

You must demonstrate proficiency in a language other than English that is equivalent to four terms of university coursework in the same language. You may satisfy this requirement by taking language courses or by testing out of all or part of it by taking CLEP exams arranged by NAU's Counseling and Testing Center. Click here for more information.

Because these courses are available at NAU, we suggest that you fulfill this requirement with either Navajo or Spanish, depending on your career aspirations.

General Electives

Additional coursework is required, if, after you have met the previously described requirements, you have not yet completed a total of 120 units of credit.

You may take these remaining courses from any academic areas, using these courses to pursue your specific interests and goals. We encourage you to consult with your advisor to select the courses that will be most advantageous to you. (Please note that you may also use prerequisites or transfer credits as electives if they weren't used to meet major, minor, or liberal studies requirements.)

Click here for more information about our Applied Indigenous Studies Courses and Faculty.

Applied Indigenous Politics and Movements Emphasis
For this emphasis, you take the following 21 units with a grade of C or better in each course:

- PL 302, POS 359, and ECO 325 (9 units)
- 12 units from PL 306, POS 320 or AIS 320, POS 250, 314, 344, 356, 361, 455, or 480

Language Requirement

You must demonstrate proficiency in a language other than English that is equivalent to four terms of university coursework in the same language. You may satisfy this requirement by taking language courses or by testing out of all or part of it by taking CLEP exams arranged by NAU's Counseling and Testing Center. Click here for more information.

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Additional coursework is required, if, after you have met the previously described requirements, you have not yet completed a total of 120 units of credit.

You may take these remaining courses from any academic areas, using these courses to pursue your specific interests and goals. We encourage you to consult with your advisor to select the courses that will be most advantageous to you. (Please note that you may also use prerequisites or transfer credits as electives if they weren't used to meet major, minor, or liberal studies requirements.)

Click here for more information about our Applied Indigenous Studies Courses and Faculty.

8. For undergraduate plans, will this requirement be a student individualized plan*? no yes

*A *Student Individualized Plan* is an academic requirement that varies by student, such as the 15-unit BAiLS focus, for which coursework requirements are established by the student in consultation with the advisor.

If yes, the academic unit listed at the top of this form hereby takes responsibility for providing complete information about each student's individual requirements for the degree audit system.

9. For undergraduate plans, will a milestone** be used to:

- a. verify satisfactory completion of a non course requirement.
- b. indicate admission to a major.
- c. will not be used.

**A *Milestone* is used to record noncourse requirements, such as the HRM 800-hour work experience requirement or admission to Business Major status.

If yes, the academic unit listed at the top of this form hereby takes responsibility for maintaining the milestone and keeping individual student records up to date.

10. Please list the Learning Outcomes of the Plan/Subplan (see degree major assessment webpage - <http://www4.nau.edu/assessment/main/degree/degree.htm>). There are no changes to the assessment models for Applied Indigenous Studies.

11. Justification for proposal. Please indicate how past assessments of student learning prompted proposed changes.

Reducing the number of required courses for the extended major from 25 to 21 units for all the emphasis areas are justified with the addition of new courses and elimination of other courses that do not diminish the breadth of the overall coursework requirement.

The AIS faculty is revising the assessment plan for the Plan/Subplan this academic year.

12. If this academic plan/subplan will require additional faculty, space, or equipment, how will these requirements be satisfied?

No

13. Will this academic plan/subplan affect other majors, liberal studies course offerings, plans/subplans, curricula, or enrollment at NAU?

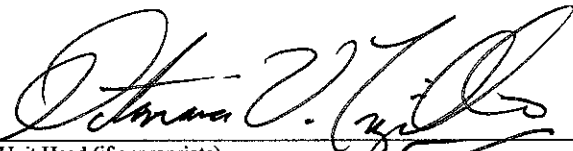
If so, attach supporting documentation from the affected departments/units and college dean.

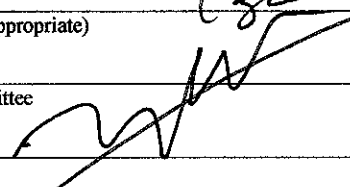
No

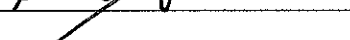
14. Will present library holdings support this academic plan/subplan?

Yes

Certifications

 November 28, 2006
Department Chair/ Unit Head (if appropriate) Date

 11-30-06
Chair of college curriculum committee Date

 _____
Dean of college Date

For committee use only

 1/16/07
For University Curriculum Committee Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to the college dean, department chair, and Academic Information Office after approval.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR NEW ACADEMIC PLAN, PLAN CHANGE, OR PLAN DELETION

1. College SBS (COM)

2. Academic Unit Journalsim

3. Academic Plan Name BS J Ed

4. Subplan (if applicable)? _____

5. Effective Date Spring 2007

6. Is this proposal for a : New Plan

Plan Change

Plan Deletion

New Subplan

Subplan Change

Subplan Deletion

7. For Plan Changes, place the existing catalog text in this column. Please copy and paste the text directly from the *current* on line academic catalog: (<http://www4.nau.edu/aio/AcademicCatalog/academiccatalogs.htm>)
Be sure you include all catalog text that pertains to this plan change

For New Plans, leave this column blank.

Show the proposed changes in this column. Please **BOLD** the changes, to differentiate from what is not changing.
(Describe the changed requirements under headings that match those used in the left column. Please be aware that if the units are not totaled correctly, the catalog editor will adjust them accordingly.)

8. For undergraduate plans, will this requirement be a student individualized plan*? no yes

*A *Student Individualized Plan* is an academic requirement that varies by student, such as the 15-unit BAiLS focus, for which coursework requirements are established by the student in consultation with the advisor.

If yes, the academic unit listed at the top of this form hereby takes responsibility for providing complete information about each student's individual requirements for the degree audit system.

9. For undergraduate plans, will a milestone** be used to:

- a. verify satisfactory completion of a non course requirement.
- b. indicate admission to a major.
- c. will not be used.

**A *Milestone* is used to record noncourse requirements, such as the HRM 800-hour work experience requirement or admission to Business Major status.

If yes, the academic unit listed at the top of this form hereby takes responsibility for maintaining the milestone and keeping individual student records up to date.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR NEW ACADEMIC PLAN, PLAN CHANGE, OR PLAN DELETION

1. College CENS

2. Academic Unit Biological Sciences

3. Academic Plan Name B.S. Biology

4. Subplan (if applicable)? _____

5. Effective Date FALL 2007

6. Is this proposal for a :
*(Please refer to Plan and Subplan
definitions)*

New Plan

Plan Change

Plan Deletion

New Subplan

Subplan Change

Subplan Deletion

7.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR NEW ACADEMIC PLAN, PLAN CHANGE, OR PLAN DELETION

1. College CENS

2. Academic Unit Biological Sciences

3. Academic Plan Name B.S. Exercise Science

4. Subplan (if applicable)? _____

5. Effective Date FALL 2007

6. Is this proposal for a :
(Please refer to Plan and Subplan definitions)

New Plan

Plan Change

Plan Deletion

New Subplan

Subplan Change

Subplan Deletion

7.

For Plan Changes, place the existing catalog text in this column. Please copy and paste the text directly from the *current* on line academic catalog:

(<http://www4.nau.edu/aio/AcademicCatalog/academiccatalogs.htm>)

Be sure you include all catalog text that pertains to this plan change

For New Plans, leave this column blank.

Graduate and Professional Preparation Emphasis.

You take 15-18 units of emphasis requirements, for a total of 89 units in your major:

- EXS 360 or 575 (3 units)
- EXS 478 or 490 (3 units)
- EXS 408C, 414C, 465C, 485C, or 497C, which meet NAU's senior capstone requirement (3 units)
- 6-9 additional units of EXS coursework approved by your advisor

Show the proposed changes in this column.

Please **BOLD** the changes, to differentiate from what is not changing.

(Describe the changed requirements under headings that match those used in the left column. Please be aware that if the units are not totaled correctly, the catalog editor will adjust them accordingly.)

Graduate and Professional Preparation Emphasis.

You take 15-18 units of emphasis requirements, for a total of 89 units in your major:

- EXS 360 or 575 (3 units)
- EXS 478 or 490 (3 units)
- EXS 408C, 414C, 465C, 485C, or 497C, which meet NAU's senior capstone requirement (3 units)

6-9 additional units of EXS coursework **chosen from the following list:**

AT 200 Intro to AT

BIO 205 Microbiology

BIO 320 General Pathology

BIO 331 Developmental Biology

BIO 332 Histology

BIO 340 Genetics and Evolution

BIO 343 Genetics and Evolution Lab

BIO 344 Cellular and Molecular Biology

BIO 350 Molecular Genetics

BIO 424 Comparative Vert. Anatomy

CHM 320/320L Analytical Chemistry

CHM 440 Environmental Chemistry

EXS 485 Research

EXS 497 Independent Study

EXS 408 Fieldwork

EXS 414C Adv. Ex. Physiology (when not used as capstone)

MAT 136 Calculus I

ME 340 Materials Science

NTS 370 Nutrition and Exercise

PSY 227 Personality

PSY 240 Developmental Psychology

PSY 250 Social Psychology
PSY 350 Physiological Psychology
PSY 415 Abnormal Psychology
SOC 318 Medical Sociology
STA 371 Intermediate Statistics
STA 472 Nonparametric Statistics

***Please be aware that these courses may have prerequisites.**

8. For undergraduate plans, will this requirement be a student individualized plan*? x no yes

**A Student Individualized Plan is an academic requirement that varies by student, such as the 15-unit BAiLS focus, for which coursework requirements are established by the student in consultation with the advisor.*

If yes, the academic unit listed at the top of this form hereby takes responsibility for providing complete information about each student's individual requirements for the degree audit system.

9. For undergraduate plans, will a milestone** be used to:

- a. verify satisfactory completion of a non course requirement.
 b. indicate admission to a major.
x c. will not be used.

***A Milestone is used to record noncourse requirements, such as the HRM 800-hour work experience requirement or admission to Business Major status.*

If yes, the academic unit listed at the top of this form hereby takes responsibility for maintaining the milestone and keeping individual student records up to date.

10. Please list the Learning Outcomes of the Plan/Subplan (see degree major assessment webpage - <http://www4.nau.edu/assessment/main/degree/degree.htm>).

11. Justification for proposal. Please indicate how past assessments of student learning prompted proposed changes.

This change formalizes the courses that have been approved by Exercies Science advisors in the past. It is undertaken to make the catalogue description compatible with People Soft.

12. If this academic plan/subplan will require additional faculty, space, or equipment, how will these requirements be satisfied?

NA

13. Will this academic plan/subplan affect other majors, liberal studies course offerings, plans/subplans, curricula, or enrollment at NAU? No

If so, attach supporting documentation from the affected departments/units and college dean.

14. Will present library holdings support this academic plan/subplan?

yes

Certifications

Marilyn Watwood 11.29.06
Department Chair/ Unit Head (if appropriate) Date

Mary Ann Welch Dec-9-06
Chair of college curriculum committee Date

J. J. Huennike 7 Dec 06
Dean of college Date

For committee use only

Ron Butt 11/16/07
For University Curriculum Committee Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to the college dean, department chair, and Academic Information Office after approval.

UNIVERSITY CURRICULUM COMMITTEE

Proposal for New Course

1. Is this course being proposed for Liberal Studies designation? Yes No
If yes, route completed form to Liberal Studies.
2. New course effective beginning what term and year? (ex. Spring 2008, Summer 2008) Fall 2007
See effective dates schedule.
3. College CENS 4. Academic Unit CENE
5. Course subject/catalog number CENE 150L 6. Units 1
7. Co-convened with _____ 7a. Date approved by UGC _____
(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented.)
8. Cross-listed with _____
(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)
9. Long course title INTRODUCTION TO ENVIRONMENTAL ENGINEERING COMPUTATIONS LAB
(max 100 characters including spaces)
10. Short course title (max. 30 characters including spaces) INTRO TO ENV ENGR COMPUTATIONS
11. Catalog course description (max. 30 words, excluding requisites).

Intensive practical study of units, conversion factors, computations, block diagrams and material balance applied to the solution of environmental engineering problems.

12. Grading option: Letter grade Pass/Fail or Both
(If both, the course may only be offered one way for each respective section.)
13. Is this a topics course? Yes No
14. May course be repeated for *additional* units? yes no
a. If yes, maximum units allowed? _____
b. If yes, may course be repeated for *additional* units in the same term? (ex. PES 100) yes no
15. Please check **ONE** of the following that most appropriately describes the course:
Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research
Seminar Field Studies Independent Study Activity Supervision
16. Prerequisites (must be completed *before* proposed course) _____
17. Corequisites (must be completed *with* proposed course) CENE 150
18. If course has no requisites, will all sections of the course require *(If course has pre or co requisite, skip to question 19)*:
instructor consent department consent no consent

19. Is the course needed for a plan of study (major, minor, certificate)? yes no

Name of new plan? _____

Note: A new plan or plan change form must be submitted with this request.

20. Does course duplicate content of existing courses within or outside of your college? yes no

If yes, list any courses this course may have duplicative material with and estimate percentage of duplication: _____

Please attach letters of support from each department whose course is listed above.

21. Will this course affect other academic plans, academic units, or enrollment? yes no

If yes, explain in justification and provide supporting documentation from the affected departments.

22. Is a potential equivalent course offered at a community college (lower division only)? yes no

If yes, does it require listing in the *Course Equivalency Guide*? yes no

Please list, if known, the institution, subject/catalog number of the course. _____

23. Justification for new course, including unique features if applicable. (Attach proposed syllabus in the approved university format).

The current CENE 150 course contains too much material for a 3-credit course. We wish to simplify the existing CENE 150 course so that the "math-related" component is minimized, allowing us to focus CENE 150 as a basic survey-type course that introduces students to the major without the corresponding difficult material. We expect this will increase retention in our major. By adding this 1-credit lab course, the additional problem-solving work will be done in an interactive lab session where students will have more focus on the needed problem solving aspect of the course, better preparing them for 200-level courses in the program.

Note that the other CENE degree (Civil Engineering) has 1-credit more required for graduation. This increase will allow both programs to have the same number of credits required for graduation.

24. Names of current faculty qualified to teach this course Bero, Auberle, Odem, Baxter,
Gremillion

25. If course will require additional faculty, space, or equipment, how will these requirements be satisfied? _____

26. Will present library holdings support this course? yes no

NEW JUNIOR LEVEL WRITING COURSE (refer to question 19)

37. To which degree programs offered by your department/academic unit does this proposal apply? _____

38. Do you intend to offer ABC 300 and ABC 300W? yes no

If no, please submit a course delete form for the ABC 300.

GO TO question 42

NEW SENIOR CAPSTONE COURSE (refer to question 19)

39. To which degree programs offered by your department/academic unit does this proposal apply? _____

40. Does this proposal replace or modify an existing course or experience? yes no

If yes, which course(s)? _____

41. Do you intend to offer ABC 400 and ABC 400C? yes no

If no, please submit a course delete form for the ABC 400.

42. Approvals



11/15/06

Department Chair (if appropriate)

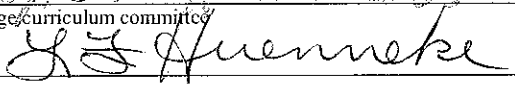
Date



Wayne A. Edelbrock
of college curriculum committee

12-04-06

Date



Dean of college

7 Dec 06

Date

For Committees use only

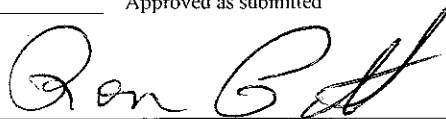
For Liberal Studies Committee

Date

Action taken:

Approved as submitted

Approved as modified



1/16/07

For University Curriculum Committee

Date

Action taken:

Approved as submitted

Approved as modified

If the course being submitted for approval is NOT a LIBERAL STUDIES course, please go to step 42.

LIBERAL STUDIES ONLY

Contact name: _____

Contact email: _____

Dept. Chair name: _____

Dept. Chair email: _____

College Contact name : _____

College Contact email: _____

27. This course is a Single section Multi-section

28. List names of faculty who may teach this course: _____

29. Section enrollment cap: _____

If this course is being submitted for approval as a new LIBERAL STUDIES course, please complete questions 30-33.

OR

If this course is being submitted for approval as a new JUNIOR LEVEL WRITING course, please complete questions 37-38.

OR

If this course is being submitted for approval as a new SENIOR CAPSTONE course, please complete questions 39-41.

NEW LIBERAL STUDIES COURSE

30. Thematic Focus (check all that apply): *If a topics course, must apply to ALL sections.*

Environmental Consciousness Technology and Its Impact Valuing the Diversity of Human Experience

31. Distribution Block (check one): *If a topics course, must apply to ALL sections.*

Aesthetic and Humanistic Inquiry Cultural Understanding Lab Science

Science/Applied Science Social and Political Worlds

32. Skills (check two): *If a topics course, must apply to ALL sections.*

Creative Thinking Critical Reading Effective Oral Communication Effective Writing Critical Thinking

Ethical Reasoning Quantitative/Spatial Analysis Scientific Inquiry Use of Technology

33. Is this a topics course? Yes No

If YES, please complete questions 34-36. If NO, please go to question 42.

TOPICS COURSE ONLY

34. Identify the Student Learning Outcomes that will be found in ALL topic syllabi offered under this course number. _____

35. Explain by what method(s) Student Learning Outcomes will be assessed in ALL topic syllabi offered under this course number.

36. Please attach an example of a Topic Syllabus offered under this course number.

Course Syllabus

CENE 150L Environmental Engineering Computations Laboratory

General Information:	Name of College and Department:	Civil & Environmental Engineering, College of Engineering and Natural Sciences
	Course Prefix, Number, and Title	CENE 150L, Environmental Engineering Computations Laboratory
	Semester:	Fall 2007
	Clock Hours / Credit Hours:	3 clock hours, 1 credit hour
	Instructor:	Bridget N. Bero, Ph.D., P.E., Associate Professor
	Office Address:	Room 306, Engineering, Bldg. 69 (928) 523-2051 Bridget.Bero@nau.edu
Office Hours:	TBD	
Course Prerequisites:	Corequisite: CENE 150	
Course Description:	Intensive practical study of units, conversion factors, computations, block diagrams and material balance applied to the solution of environmental engineering problems.	
Student Learning Expectations / Outcomes for this Course:	<p>This course will provide you with a strong foundation in problem solving skills. Upon successful completion of this course, students will be able to:</p> <ul style="list-style-type: none"> • Explain units pertinent to environmental engineering, • Perform unit conversions, • Draw block diagrams, • Write material balance equations and perform calculations, • Solve environmental engineering related problems 	
Course Structure and Approach:	Laboratory format.	
Textbook and Required Materials:	Pierce, J. Jeffrey, R.F. Weiner, and P.A. Vesilind. <i>Environmental Pollution and Control</i> , 4th ed., Butterworth-Heinemann, Boston, 1998.	
Recommended Optional Material / References:	Handouts will be provided as needed.	
Course Outline:	<p>Week 1-3: Units and unit conversion Week 4-12: Block diagrams and material balances Week 13-15: Radioactive decay and air pollution dispersion</p>	
Assessment of Student Learning Outcomes:	<p>Methods of Assessment: Assessment of students' achievement of this course's learning outcomes is done via homework (individual and group), quizzes and examinations.</p> <ul style="list-style-type: none"> • Quizzes: Simple quizzes are provided to reinforce concepts. Quizzes constitute 15% of your grade. • Homework: Homework, more complex than quizzes, is assigned to reinforce and assess the concepts and skills demonstrated in example problems. Some group projects/homework assignments will be required. Homework may be done in consultation with classmates, but each person will be tested individually. Homework constitutes 25% of your class grade. • Exams: Exams are used to assess overall learning. There will be 3 exams 	

	<p>for the course. All exams are comprehensive. Each exam constitutes 20% of your class grade. Exams are closed-book and closed-notes.</p> <ul style="list-style-type: none"> The course final grade will be based upon: A = >90%; B = >80%; C = >70%; D = >60%; F = <59% <p>Timeline for Assessment: Quizzes are done at the beginning of each lab period. Homework assignments are assigned each week and are due the following week. Exams are generally spaced equally throughout the semester.</p>																								
<p>Grading System:</p>	<table border="1"> <thead> <tr> <th>Grading Scheme</th> <th>Points</th> <th colspan="2">Grading Scale</th> </tr> </thead> <tbody> <tr> <td>Quizzes:</td> <td>15</td> <td>A</td> <td>≥90%</td> </tr> <tr> <td>Homework</td> <td>25</td> <td>B</td> <td>≥80%</td> </tr> <tr> <td>Exams (3)</td> <td>60</td> <td>C</td> <td>≥70%</td> </tr> <tr> <td>Total:</td> <td>100</td> <td>D</td> <td>≥60%</td> </tr> <tr> <td></td> <td></td> <td>F</td> <td><60%</td> </tr> </tbody> </table>	Grading Scheme	Points	Grading Scale		Quizzes:	15	A	≥90%	Homework	25	B	≥80%	Exams (3)	60	C	≥70%	Total:	100	D	≥60%			F	<60%
Grading Scheme	Points	Grading Scale																							
Quizzes:	15	A	≥90%																						
Homework	25	B	≥80%																						
Exams (3)	60	C	≥70%																						
Total:	100	D	≥60%																						
		F	<60%																						
<p>Course Policies:</p>	<p>Out-of-class work expectations:</p> <ul style="list-style-type: none"> Students are expected to spend an additional 3 hours per week on the course beyond in-class time (self study, homework and project work). This is standard for a 1-credit course (reference: NAU Academic Contact Hour Policy). <p>Homework:</p> <ul style="list-style-type: none"> All activities / assignments have a specified due date; LATE WORK IS NOT ACCEPTED UNLESS APPROVED BY THE INSTRUCTOR. Homework must be neat, straightforward and readable with all assumptions, equations and supporting information listed. All non-computational written assignments must be completed using a computer word processing application and double spaced. All computational assignments must be printed on the plain side of engineering grid paper. All solutions must be presented with answers and conclusions clearly indicated (i.e., boxed). Staple multiple pages. Assignments submitted that are judged illegible or difficult to follow during grading will be returned without grading, and may not be resubmitted. Handwritten assignments are to be turned in by the due date either by dropping off at my office (under door or in my department mailbox) or faxing. TIPS for a good grade: Be proactive! Look at homework well in advance of its due date - ask questions via the online course or see me for help. After the homework is graded, pick it up and go over it with the key to assure that you are comfortable with the concepts. If you aren't - ask again! <p>Exams:</p> <ul style="list-style-type: none"> Missed exams cannot be made up without prior consent of the instructor. <p>Statement on Plagiarism and Cheating</p> <ul style="list-style-type: none"> Plagiarism, cheating, and other forms of misconduct are subject to the Arizona Board of Regents' Code of Conduct and the procedures outlined in the NAU Student Handbook Section 5-308. Websites for these documents may be consulted at: <p>Arizona Board of Regents' Code of Conduct: http://www.abor.asu.edu/1_the_regents/policymanual/chap5/index.html</p> <p>NAU Student Handbook:</p>																								

	<p>http://www4.nau.edu/stulife/handbook.htm</p> <p>NAU Student Code of Conduct: http://www4.nau.edu/stulife/handbookcode.htm</p> <p>Disciplinary Action: http://www4.nau.edu/stulife/handbookdisciplinary.htm</p>
University Policies:	<p>Safe Working and Learning Environment: http://oak.ucc.nau.edu/dam1/Safe%20Policv.htm</p> <p>Students with Disabilities: http://www2.nau.edu/dss/</p> <p>Institutional Review Board: http://www4.nau.edu/ovp/irb/index.htm</p> <p>Academic Integrity Guidance: http://www.nau.edu/library/information/guides/plagiarism.html</p>
College of Engineering and Natural Sciences Policies:	<p>Professional Ethics and Code of Conduct</p> <p>Exceptionally high standards of honor and integrity are fundamental and essential to the study and practice of engineering. Academic preparation for the profession must be conducted in an atmosphere which fosters these values.</p> <p>In addition to compliance with the Student Code of Conduct and Policy that apply to all students at NAU, engineering students are expected to conduct themselves professionally. Violation of the National Society of Professional Engineers (NSPE) Code of Ethics, found at http://www.nspe.org/ethics/eh1-code.asp or the Association of Computing Machinery (ACM) Code of Ethics and Professional Conduct, found at http://www.acm.org/constitution/code.html may lead to dismissal from the College's academic programs.</p> <p>Violations of any of these codes will be handled as detailed in the publications listed above, and will be documented in the student's advisement file.</p> <p>Faculty members may ask students to affirm in writing that they have neither given nor received unauthorized aid on an examination or assignment.</p>

UNIVERSITY CURRICULUM COMMITTEE

Proposal for New Course

1. Is this course being proposed for Liberal Studies designation? Yes No
If yes, route completed form to Liberal Studies.
2. New course effective beginning what term and year? (ex. Spring 2008, Summer 2008) Fall 2007
See effective dates schedule.
3. College CENS 4. Academic Unit CENE
5. Course subject/catalog number CENE 383L 6. Units 1
7. Co-convened with _____ 7a. Date approved by UGC _____
(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented.)
8. Cross-listed with _____
(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)
9. Long course title GEOTECHNICAL ENGINEERING I LAB
(max 100 characters including spaces)
10. Short course title (max. 30 characters including spaces) GEOTECHNICAL ENGINEERING I LAB
11. Catalog course description (max. 30 words, excluding requisites).

Lab experiments to reinforce the concepts discussed in CENE 383. Must be taken concurrently with CENE 383.

12. Grading option: Letter grade Pass/Fail or Both
(If both, the course may only be offered one way for each respective section.)
13. Is this a topics course? Yes No
14. May course be repeated for *additional* units? yes no
a. If yes, maximum units allowed? _____
b. If yes, may course be repeated for additional units in the same term? (ex. PES 100) yes no
15. Please check **ONE** of the following that most appropriately describes the course:
Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research
Seminar Field Studies Independent Study Activity Supervision
16. Prerequisites (must be completed *before* proposed course) _____
17. Corequisites (must be completed *with* proposed course) CENE 383
18. If course has no requisites, will all sections of the course require *(If course has pre or co requisite, skip to question 19):*
instructor consent department consent no consent

19. Is the course needed for a plan of study (major, minor, certificate)? yes no
Name of new plan? _____

Note: A new plan or plan change form must be submitted with this request.

20. Does course duplicate content of existing courses within or outside of your college? yes no
If yes, list any courses this course may have duplicative material with and estimate percentage of duplication:

Please attach letters of support from each department whose course is listed above.

21. Will this course affect other academic plans, academic units, or enrollment? yes no
If yes, explain in justification and provide supporting documentation from the affected departments.

22. Is a potential equivalent course offered at a community college (lower division only)? yes no
If yes, does it require listing in the *Course Equivalency Guide*? yes no
Please list, if known, the institution, subject/catalog number of the course. _____

23. Justification for new course, including unique features if applicable. (Attach proposed syllabus in the approved university format).

Currently part of 4-unit course. We propose to conduct separate 3-unit lecture course and 1-unit laboratory course. This will allow us to assess laboratory experiences for our civil engineering students, in response to accreditation requirements.

24. Names of current faculty qualified to teach this course Charles Schlinger, Clyde Holland

25. If course will require additional faculty, space, or equipment, how will these requirements be satisfied? _____

26. Will present library holdings support this course? yes no

If the course being submitted for approval is NOT a LIBERAL STUDIES course, please go to step 42.

LIBERAL STUDIES ONLY

Contact name: _____

Contact email: _____

Dept. Chair name: _____

Dept. Chair email: _____

College Contact name : _____

College Contact email: _____

27. This course is a Single section Multi-section

28. List names of faculty who may teach this course: _____

29. Section enrollment cap: _____

If this course is being submitted for approval as a new LIBERAL STUDIES course, please complete questions 30-33.

OR

If this course is being submitted for approval as a new JUNIOR LEVEL WRITING course, please complete questions 37-38.

OR

If this course is being submitted for approval as a new SENIOR CAPSTONE course, please complete questions 39-41.

NEW LIBERAL STUDIES COURSE

30. Thematic Focus (check all that apply): *If a topics course, must apply to ALL sections.*

Environmental Consciousness Technology and Its Impact Valuing the Diversity of Human Experience

31. Distribution Block (check one): *If a topics course, must apply to ALL sections.*

Aesthetic and Humanistic Inquiry Cultural Understanding Lab Science

Science/Applied Science Social and Political Worlds

32. Skills (check two): *If a topics course, must apply to ALL sections.*

Creative Thinking Critical Reading Effective Oral Communication Effective Writing Critical Thinking

Ethical Reasoning Quantitative/Spatial Analysis Scientific Inquiry Use of Technology

33. Is this a topics course? Yes No

If YES, please complete questions 34-36. If NO, please go to question 42.

TOPICS COURSE ONLY

34. Identify the Student Learning Outcomes that will be found in ALL topic syllabi offered under this course number. _____

35. Explain by what method(s) Student Learning Outcomes will be assessed in ALL topic syllabi offered under this course number.

36. Please attach an example of a Topic Syllabus offered under this course number.

NEW JUNIOR LEVEL WRITING COURSE (refer to question 19)

37. To which degree programs offered by your department/academic unit does this proposal apply? _____

38. Do you intend to offer ABC 300 and ABC 300W? yes no
If no, please submit a course delete form for the ABC 300.

GO TO question 42

NEW SENIOR CAPSTONE COURSE (refer to question 19)

39. To which degree programs offered by your department/academic unit does this proposal apply? _____

40. Does this proposal replace or modify an existing course or experience? yes no
If yes, which course(s)? _____

41. Do you intend to offer ABC 400 and ABC 400C? yes no
If no, please submit a course delete form for the ABC 400.

42. Approvals

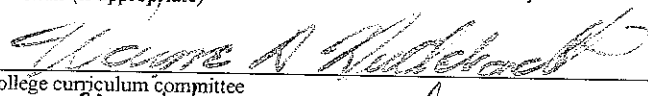


11/15/06

Department Chair (if appropriate)

Date

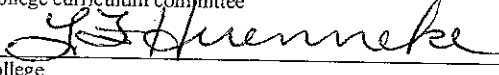
Chair of college curriculum committee



Dec-7-06

Date

Dean of college



7 Dec 06

Date

For Committees use only

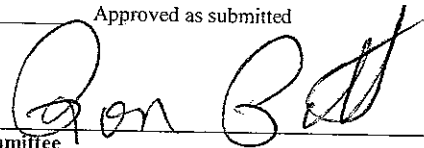
For Liberal Studies Committee

Date

Action taken:

Approved as submitted

Approved as modified



11/16/07

For University Curriculum Committee

Date

Action taken:



Approved as submitted

Approved as modified

Course Syllabus
CENE 383L Geotechnical Engineering I Laboratory

General Information:	Name of College and Department:	Civil & Environmental Engineering, College of Engineering and Natural Sciences	
	Course Prefix, Number, and Title	CENE 383L, Geotechnical Engineering I Laboratory	
	Semester:	Spring 2008	
	Clock Hours / Credit Hours:	3 clock hours, 1 credit hour	
	Instructor:	Clyde N. Holland, Ph.D., P.E., Associate Professor	
	Office Address:	Room 205, Engineering, Bldg. 69 (928) 523-4440 Clyde.Holland@nau.edu	
	Office Hours:	Monday: 9:00am-11:30am; Tuesday: 9:30am-10:30am	
Course Prerequisites:	Corequisite: CENE 383		
Course Description:	Lab experiments to reinforce the concepts discussed in CENE 383. Must be taken concurrently with CENE 383.		
Student Learning Expectations / Outcomes for this Course:	Through laboratory exercises students will develop expertise in several of the principle techniques for analyzing the mechanical properties of soil (ABET criterion 3j); design, conduct, and evaluate experiments and their data (ABET criterion 3c); and prepare thorough technical reports (ABET criterion 3g).		
Course Structure and Approach:	We will meet once weekly. Each week students will conduct a laboratory exercise, beginning promptly at 3:00pm. Generally all work will be completed by 5:30pm, including cleaning and storage of all equipment and cleaning of all work areas. Lab reports will be due by the beginning of the following class period. A laboratory practical exam will be given on the last meeting day of the semester, in which students will have to demonstrate mastery of one or more of the techniques covered during the term.		
Textbook and Required Materials:	C. Liu and J.B. Evett, 2003. <i>Soil Properties: Testing, Measurement, and Evaluation</i> , 5 th Edition, Prentice Hall.		
Recommended Optional Material / References:	Handouts will be provided as needed.		
Course Outline:	Week 1: Field sampling	Week 9: Unconfined compression test	
	Week 2: Specific gravity	Week 10: <i>Spring break</i>	
	Week 3: Dry sieve analysis	Week 11: Direct shear	
	Week 4: Wet sieve analysis	Week 12: Consolidation	
	Week 5: Atterberg limits	Week 13: Triaxial test	
	Week 6: Classification	Week 14: Expansive soils	
	Week 7: Standard Proctor	Week 15: Permeability	
	Week 8: Field unit weight	Week 16: <i>Lab Practical</i>	
Assessment of Student Learning Outcomes:	<p>Methods of Assessment Assessing students' achievement of this course's learning outcomes is done using homework, quizzes, examinations and project assignments.</p> <p>Laboratory Reports: Lab reports will be due the week after the lab experiments are conducted and will be graded on technical content, quality of data analysis</p>		

	<p>and interpretation, and quality of technical writing.</p> <p>Lab Practical: Mastery of lab techniques will be evaluated in two parts: Successful demonstration of one or more laboratory procedures and completion of a practical exam.</p> <p>Timeline for Assessment Lab reports assigned throughout the semester with due dates specified. Typically these will be submitted in-person at the beginning of the first lab session after the report is assigned. Late reports will not be graded. The lab practical will take place during the last lab session of the semester.</p>																								
Grading System:	<table border="1"> <thead> <tr> <th>Grading Scheme</th> <th>Points</th> <th colspan="2">Grading Scale</th> </tr> </thead> <tbody> <tr> <td>Lab report, technical content:</td> <td>50</td> <td>A</td> <td>≥90%</td> </tr> <tr> <td>Lab report, technical writing</td> <td>25</td> <td>B</td> <td>≥80%</td> </tr> <tr> <td>Lab practical</td> <td>15</td> <td>C</td> <td>≥70%</td> </tr> <tr> <td>Lab exam:</td> <td>10</td> <td>D</td> <td>≥60%</td> </tr> <tr> <td>Total:</td> <td>100</td> <td>F</td> <td><60%</td> </tr> </tbody> </table>	Grading Scheme	Points	Grading Scale		Lab report, technical content:	50	A	≥90%	Lab report, technical writing	25	B	≥80%	Lab practical	15	C	≥70%	Lab exam:	10	D	≥60%	Total:	100	F	<60%
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Course Policies:	<p>Retests / Makeup Tests There are no make-up assignments for homework and no make-up or retesting for quizzes and exams.</p> <p>Attendance Keeping current with the class material and participating in online discussions are the responsibility of the student.</p> <p>Statement on Plagiarism and Cheating Plagiarism, cheating, and other forms of misconduct are subject to the Arizona Board of Regents' Code of Conduct and the procedures outlined in the NAU Student Handbook Section 5-308. Websites for these documents may be consulted at:</p> <p>Arizona Board of Regents' Code of Conduct: http://www.abor.asu.edu/the_regents/policymanual/chap5/index.html</p> <p>NAU Student Handbook: http://www4.nau.edu/stulife/handbook.htm</p> <p>NAU Student Code of Conduct: http://www4.nau.edu/stulife/handbookcode.htm</p> <p>Disciplinary Action: http://www4.nau.edu/stulife/handbookdisciplinary.htm</p>																								
University Policies:	<p>Safe Working and Learning Environment: http://oak.ucc.nau.edu/dam1/Safe%20Policy.htm</p> <p>Students with Disabilities: http://www2.nau.edu/dss/</p> <p>Institutional Review Board: http://www4.nau.edu/ovp/irb/index.htm</p> <p>Academic Integrity Guidance: http://www.nau.edu/library/information/guides/plagiarism.html</p>																								

College of Engineering and Natural Sciences Policies:	Professional Ethics and Code of Conduct Exceptionally high standards of honor and integrity are fundamental and essential to the study and practice of engineering. Academic preparation for the profession must be conducted in an atmosphere which fosters these values. In addition to compliance with the Student Code of Conduct and Policy that apply to all students at NAU, engineering students are expected to conduct themselves professionally. Violation of the National Society of Professional Engineers (NSPE) Code of Ethics, found at http://www.nspe.org/ethics/eh1-code.asp or the Association of Computing Machinery (ACM) Code of Ethics and Professional Conduct, found at http://www.acm.org/constitution/code.html may lead to dismissal from the College's academic programs. Violations of any of these codes will be handled as detailed in the publications listed above, and will be documented in the student's advisement file. Faculty members may ask students to affirm in writing that they have neither given nor received unauthorized aid on an examination or assignment.
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UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR COURSE CHANGE

1. Is this a Liberal Studies or Diversity Course? Liberal Studies Diversity Both
2. Course change effective beginning of what term and year?
(ex. Spring 2008, Summer 2008) See effective dates schedule. Fall 2007
3. College CENS 4. Academic Unit CENE
5. Current course subject/catalog number CENE 383
6. Current catalog title, course description, and units. (*Copy and paste from current on-line academic catalog*).

SOIL MECHANICS AND FOUNDATIONS (4)

Soil properties; identification and classification of earth material; subsurface exploration of soil strength, stresses, and settlement; substructure design; computer applications. Prerequisite: CENE 253 with grade greater than or equal to C

7. Is course currently cross-listed or co-convened? yes no
If yes, list course _____
Will this continue? _____
8. Is course an elective? or required for an academic plan/subplan?
If required, for what academic plan/subplan? Civil Engr., Environmental Engr.
If required, also submit *Proposal for New Plan or Plan Change*.
9. Will other courses or academic units, be affected by this change? (Consider prerequisites, degree requirements, etc.) yes No
If yes, explain in the justification and provide supporting documentation from the affected departments.
10. Does this change affect community college articulation? yes No
If yes, explain how in the justification and provide supporting documentation from the affected institutions.
- Is the course a Common Course as defined by your Articulation Task Force? yes no
If yes, has the change been approved by the Articulation Task Force? Yes no
- If this course has been listed in the Course Equivalency Guide, should that listing be left as is, or be revised?
If revised, how should it be revised? Revise course hours and title.

FOR SECTION 11 ONLY COMPLETE WHAT IS CHANGING.

11. a. Proposed course subject /catalog number _____ b. Proposed units 3
- Only fill in what is changing.**
- If information is remaining the same, leave the section blank.**
- c. **If subject/catalog number change, is there a course fee attached to the current subject/catalog number that needs to be moved?** Yes No
If yes, please attach a Justification Form for Instructional Fees indicating the new course subject/catalog number change.
- d. Proposed to co-convene with _____ Date approved by UGC _____
(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented.)
- e. Proposed to cross-list with _____
(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)
- f. Proposed long course title GEOTECHNICAL ENGINEERING I
(max 100 characters including spaces)
- g. Proposed short course title GEOTECHNICAL ENGINEERING I
(max 30 characters including spaces)
- h. Proposed catalog course description (max. 30 words, excluding requisites)

Origin of soils, identification / classification of earth materials, subsurface exploration, index properties, compaction, permeability, seepage, strength, and settlement, introduction to earth pressure analysis, and Terzaghi's Bearing Capacity.

- i. Proposed grading option: Letter grade Pass/Fail or Both
(If both, the course may only be offered one way for each respective section.)
- j. May course be repeated for *additional* units? yes no
j.1. If yes, maximum units allowed? _____
j.2. If yes, may course be repeated for additional units in the same term? (ex. BIO 300, PES 100)
yes no
- k. Please check **ONE** of the following that most appropriately describes the proposed course change(s):
- Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research
Seminar Field Studies Independent Study Activity Supervision
- l. Proposed prerequisites (must be completed before) _____
- m. Proposed corequisites (must be completed with) CENE 383L
- n. If course has no requisites, will all sections of the course require: (If course has pre or co requisite, skip to question 12)
Instructor consent Department consent No consent

12. Justification for course change. Please indicate how past assessments of student learning prompted proposed changes.

Laboratory component to become separate new course. This will allow us to assess laboratory experiences for our civil engineering students, in response to accreditation requirements.

As part of our preparation for an upcoming accreditation visit, we have reviewed all of our course descriptions. Course content has been modified gradually to reflect current practice in engineering. The proposed changes reflect the current content of the course.

Lab course to become corequisite. Prerequisites unchanged, but repeated in Line 11-1 to clarify that prerequisites have not been dropped.

13. Approvals

11/15/06

Department Chair/ Unit Head (if appropriate)

Date

Dec 7, 2006

Chair of college curriculum committee

Date

Dean of college

Date

For Committee use only

1/10/07

For University Curriculum Committee

Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to college dean, department chair, and Academic Information Office.

UNIVERSITY CURRICULUM COMMITTEE

Proposal for New Course

1. Is this course being proposed for Liberal Studies designation? Yes No
If yes, route completed form to Liberal Studies.
2. New course effective beginning what term and year? (ex. Spring 2008, Summer 2008) Fall 2007
See effective dates schedule.
3. College CENS 4. Academic Unit CENE
5. Course subject/catalog number CENE 457 6. Units 3
7. Co-convened with _____ 7a. Date approved by UGC _____
(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented.)
8. Cross-listed with _____
(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)
9. Long course title MASONRY DESIGN
(max 100 characters including spaces)
10. Short course title (max. 30 characters including spaces) MASONRY DESIGN
11. Catalog course description (max. 30 words, excluding requisites).

Behavior, analysis, and design of reinforced masonry members subjected to axial, flexure, and shear loading. Masonry beams, walls and columns, with practical application of concepts will be covered.

12. Grading option: Letter grade Pass/Fail or Both
(If both, the course may only be offered one way for each respective section.)
13. Is this a topics course? Yes No
14. May course be repeated for *additional* units? yes no
a. If yes, maximum units allowed? _____
b. If yes, may course be repeated for additional units in the same term? (ex. PES 100) yes no
15. Please check **ONE** of the following that most appropriately describes the course:
Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research
Seminar Field Studies Independent Study Activity Supervision
16. Prerequisites (must be completed *before* proposed course) CENE 253
17. Corequisites (must be completed *with* proposed course) _____
18. If course has no requisites, will all sections of the course require *(If course has pre or co requisite, skip to question 19)*:
instructor consent department consent no consent

19. Is the course needed for a plan of study (major, minor, certificate)? yes no

Name of new plan? _____

Note: A new plan or plan change form must be submitted with this request.

20. Does course duplicate content of existing courses within or outside of your college? yes no

If yes, list any courses this course may have duplicative material with and estimate percentage of duplication:

Please attach letters of support from each department whose course is listed above.

21. Will this course affect other academic plans, academic units, or enrollment? yes no

If yes, explain in justification and provide supporting documentation from the affected departments.

22. Is a potential equivalent course offered at a community college (lower division only)? yes no

If yes, does it require listing in the *Course Equivalency Guide*? yes no

Please list, if known, the institution, subject/catalog number of the course. _____

23. Justification for new course, including unique features if applicable. (Attach proposed syllabus in the approved university format).

Accreditation in civil engineering requires that our students become proficient in four separate areas of specialization. Currently students have few options for electives to meet the structural engineering specialization. This course provides such an elective for civil engineering students.

24. Names of current faculty qualified to teach this course Joshua Hewes, Debra Larson

25. If course will require additional faculty, space, or equipment, how will these requirements be satisfied? _____

26. Will present library holdings support this course? yes no

If the course being submitted for approval is NOT a LIBERAL STUDIES course, please go to step 42.

LIBERAL STUDIES ONLY

Contact name: _____

Contact email: _____

Dept. Chair name: _____

Dept. Chair email: _____

College Contact name : _____

College Contact email: _____

27. This course is a Single section Multi-section

28. List names of faculty who may teach this course: _____

29. Section enrollment cap: _____

If this course is being submitted for approval as a new LIBERAL STUDIES course, please complete questions 30-33.

OR

If this course is being submitted for approval as a new JUNIOR LEVEL WRITING course, please complete questions 37-38.

OR

If this course is being submitted for approval as a new SENIOR CAPSTONE course, please complete questions 39-41.

NEW LIBERAL STUDIES COURSE

30. Thematic Focus (check all that apply): *If a topics course, must apply to ALL sections.*

Environmental Consciousness Technology and Its Impact Valuing the Diversity of Human Experience

31. Distribution Block (check one): *If a topics course, must apply to ALL sections.*

Aesthetic and Humanistic Inquiry Cultural Understanding Lab Science

Science/Applied Science Social and Political Worlds

32. Skills (check two): *If a topics course, must apply to ALL sections.*

Creative Thinking Critical Reading Effective Oral Communication Effective Writing Critical Thinking

Ethical Reasoning Quantitative/Spatial Analysis Scientific Inquiry Use of Technology

33. Is this a topics course? Yes No

If YES, please complete questions 34-36. If NO, please go to question 42.

TOPICS COURSE ONLY

34. Identify the Student Learning Outcomes that will be found in ALL topic syllabi offered under this course number. _____

35. Explain by what method(s) Student Learning Outcomes will be assessed in ALL topic syllabi offered under this course number.

36. Please attach an example of a Topic Syllabus offered under this course number.

NEW JUNIOR LEVEL WRITING COURSE (refer to question 19)

37. To which degree programs offered by your department/academic unit does this proposal apply? _____

38. Do you intend to offer ABC 300 and ABC 300W? yes no
If no, please submit a course delete form for the ABC 300.

GO TO question 42

NEW SENIOR CAPSTONE COURSE (refer to question 19)

39. To which degree programs offered by your department/academic unit does this proposal apply? _____

40. Does this proposal replace or modify an existing course or experience? yes no
If yes, which course(s)? _____

41. Do you intend to offer ABC 400 and ABC 400C? yes no
If no, please submit a course delete form for the ABC 400.

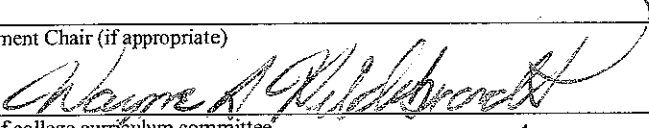
42. Approvals



11/15/06

Department Chair (if appropriate)

Date



Dec 7, 2006

Chair of college curriculum committee

Date



7 Dec 06

Dean of college

Date

For Committees use only

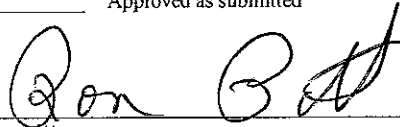
For Liberal Studies Committee

Date

Action taken:

Approved as submitted

Approved as modified



1/16/07

For University Curriculum Committee

Date

Action taken:

✓

Approved as submitted

Approved as modified

Course Syllabus

CENE 457 Masonry Design

General Information:	Name of College and Department: Civil & Environmental Engineering, College of Engineering and Natural Sciences Course Prefix, Number, and Title: CENE 457 Masonry Design Semester: Fall 2007 Clock Hours / Credit Hours: 3 clock hours per week; 3 credit hours. Instructor: Joshua T. Hewes, Ph.D., P.E., Assistant Professor Office Address: Room 322E, Engineering, Bldg. 69 (928) 523-1478 Joshua.Hewes@nau.edu Office Hours: TBA, or by appointment.												
Course Prerequisites:	CENE 253												
Course Description:	This course will provide an introduction to the behavior, analysis, and design of reinforced masonry members subjected to axial, flexure, and shear loading. Masonry beams, walls (in-plane, out-of-plane, and shear loads) and columns, will be covered. MSJC – 05 Code requirements will be covered, and practical application of concepts will be emphasized.												
Student Learning Expectations / Outcomes for this Course:	On completing this course, students will be able to: <ol style="list-style-type: none"> 1. Describe the behavior and characteristics of reinforced masonry materials. 2. Describe the difference between allowable stress design and ultimate strength design concepts. 3. Analyze and design masonry members for flexure and shear using both allowable stress and ultimate strength design procedures. 4. Analyze and design masonry columns and walls for axial plus bending loads using ultimate strength design procedures. 5. Analyze and design masonry shear walls used for lateral load resisting systems using ultimate strength design procedures. 6. Apply the <i>Building Code Requirements for Masonry Structures, ACI 530</i> code to the analysis and design of masonry structures. 												
Course Structure and Approach:	This course follows a traditional lecture format with class meeting two times per week. Weekly homework assignments will be given that will emphasize and reinforce concepts discussed in lecture. Class participation will be expected, with some class meetings consisting of student groups working together to solve assigned problems.												
Textbook and Required Materials:	<i>Design of Reinforced Masonry Structures</i> , Narendra Taly, McGraw-Hill Companies, Inc., 2001. Supplemental materials will also be provided on the Vista web page.												
Recommended Optional Material / References:	<i>Building Code Requirements for Masonry Structures 2005 - ACI 530</i> , Masonry Standards Joint Committee, The Masonry Society, 2005.												
Course Outline:	<table style="width: 100%; border: none;"> <tr> <td style="width: 30%; padding-right: 10px;">Weeks 1:</td> <td>Course Introduction and Masonry Materials</td> </tr> <tr> <td>Weeks 2 – 4:</td> <td>Beam Elastic Flexural Design and Deflections</td> </tr> <tr> <td>Week 5:</td> <td>Beam ASD Shear Design</td> </tr> <tr> <td>Weeks 6 – 7:</td> <td>Beam Ultimate Strength Design for Flexure</td> </tr> <tr> <td>Weeks 8:</td> <td>Beam Ultimate Strength Design for Shear</td> </tr> <tr> <td>Weeks 9 – 10:</td> <td>Column Analysis and Design</td> </tr> </table>	Weeks 1:	Course Introduction and Masonry Materials	Weeks 2 – 4:	Beam Elastic Flexural Design and Deflections	Week 5:	Beam ASD Shear Design	Weeks 6 – 7:	Beam Ultimate Strength Design for Flexure	Weeks 8:	Beam Ultimate Strength Design for Shear	Weeks 9 – 10:	Column Analysis and Design
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	<p>Weeks 11 – 12: Wall Analysis and Design for Out-of-Plane Loads Weeks 13 – 14: Wall Analysis and Design for In-Plane Loads (Shear Walls) Week 15: Review Week 16: Final Exams</p>																																
<p>Assessment of Student Learning Outcomes:</p>	<p>Methods of Assessment Assessing students' achievement of this course's learning outcomes is done using homework, quizzes, examinations and project assignments.</p> <p>Discussions and Homework: Homework is assigned to promote understanding of certain topics. Homework typically consists of worked problems, but will also include assigned readings.</p> <p>Quizzes: Quizzes are given to assess understanding of particular topics and to encourage students to keep up with the course material on a weekly basis.</p> <p>Exams: Exams are administered to assess student achievement of course learning outcomes.</p> <p>Timeline for Assessment Homework is assigned throughout the semester with due dates specified. Late homework is not accepted. Quizzes will occur once per week and are unannounced. Three exams will be given during the semester. A final exam is given during week 16.</p>																																
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University Policies:	<p>Safe Working and Learning Environment: http://oak.ucc.nau.edu/dam1/Safe%20Policy.htm</p> <p>Students with Disabilities: http://www2.nau.edu/dss/</p> <p>Institutional Review Board: http://www4.nau.edu/ovp/irb/index.htm</p> <p>Academic Integrity Guidance: http://www.nau.edu/library/information/guides/plagiarism.html</p>
College of Engineering and Natural Sciences Policies:	<p>Professional Ethics and Code of Conduct</p> <p>Exceptionally high standards of honor and integrity are fundamental and essential to the study and practice of engineering. Academic preparation for the profession must be conducted in an atmosphere which fosters these values.</p> <p>In addition to compliance with the Student Code of Conduct and Policy that apply to all students at NAU, engineering students are expected to conduct themselves professionally. Violation of the National Society of Professional Engineers (NSPE) Code of Ethics, found at http://www.nspe.org/ethics/eh1-code.asp or the Association of Computing Machinery (ACM) Code of Ethics and Professional Conduct, found at http://www.acm.org/constitution/code.html may lead to dismissal from the College's academic programs.</p> <p>Violations of any of these codes will be handled as detailed in the publications listed above, and will be documented in the student's advisement file.</p> <p>Faculty members may ask students to affirm in writing that they have neither given nor received unauthorized aid on an examination or assignment.</p>



Department of Mathematics & Statistics

Adel Mathematics Building
PO Box 5717
Flagstaff, AZ 86011-5717

928-523-3481
928-523-5847 fax
www.math.nau.edu

MEMORANDUM

TO: Barry Lutz

FROM: Terence Blows, Curriculum Chair, Department of Mathematics and Statistics

DATE: November 20th, 2006

SUBJECT: Summary of Curriculum Materials

Undergraduate

1. New Course STA 275: Statistical Analysis – calculus-based version of STA 270 for majors in Mathematics and Statistics. Course is similar to CENE 225. A letter of support from Debra Larson has been requested.
2. New Course STA 477: Time Series Analysis. (Major course)
3. Course Change – STA 270 adding 'Credit cannot be earned in both STA 270 and 275'
4. Course Change – STA 371. Prerequisite changed from STA 270 to STA 270 or 275
5. Course Change – STA 471. Prerequisite changed from MAT 136 and STA 270 to MAT 136 and STA 270 or 275
6. Course Change – STA 472. Prerequisite changed from STA 270 to STA 270 or 275
7. Course Change – STA 473C. Prerequisite changed from MAT 137 to MAT 238
8. Program Change – BSEd in Mathematics. Requirement of STA 270 changed to STA 275
9. Program Change – BS in Mathematics – Extended Major: Actuarial Science and Statistics emphases. Requirement of STA 270 changed to STA 270 or 275; STA 477 added as a requirement.
10. Program Change – Mathematics Secondary Education Minor. STA 270 changed to STA 270 or 275
11. Program Change – Statistics Minor. STA 270 changed to STA 270 or 275; STA 477 added to list of possible courses.
12. Program Change – Mathematics Minor. Increase of 1 hour in the minor to reflect previous increase of 1 hour in MAT 238. Listing of MAT 335 alongside three other courses that are more theoretical and less computational in nature.

There are some typos in the current catalog in which total hours for the BSEd and BS Extended do not add up. These are corrected in the paperwork of items 8 and 9.

Graduate

13. New Course. The university course line XXX 597 is activated for the STA prefix.
14. Course Deletion - STA 579, introduced solely for the now defunct Master of Public Health. E-mail from John Sciacca included in hard copy set of forms.
15. Course Change. - MAT 602. Prerequisite changed from MAT 507 to Instructor Consent.
16. Program Change – M.A.T. in Mathematics changed to explicitly require at least 3 pedagogy-content 'connections' courses. (MAT 507 and at least 2 of the other three)

UNIVERSITY CURRICULUM COMMITTEE

Proposal for New Course

1. Is this course being proposed for Liberal Studies designation? Yes No
If yes, route completed form to Liberal Studies.
2. New course effective beginning what term and year? (ex. Spring 2008, Summer 2008) Fall 2007
See effective dates schedule.
3. College Engineering and Natural Sciences 4. Academic Unit Mathematics and Statistics
5. Course subject/catalog number STA 275 6. Units 3
7. Co-convened with -- 7a. Date approved by UGC --
(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented.)
8. Cross-listed with --
(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)
9. Long course title Statistical Analysis
(max 100 characters including spaces)
10. Short course title (max. 30 characters including spaces) Statistical Analysis
11. Catalog course description (max. 30 words, excluding requisites).

A calculus-based applied statistics course. Descriptive statistics; discrete and continuous random variables; probability distributions including binomial, Poisson, normal and t-distributions; one- and two-sample hypothesis tests and confidence intervals; simple linear regression and correlation. Credit cannot be earned in both STA 270 and STA 275

12. Grading option: Letter grade Pass/Fail or Both
(If both, the course may only be offered one way for each respective section.)
13. Is this a topics course? Yes No
14. May course be repeated for *additional* units? yes no
a. If yes, maximum units allowed? _____
b. If yes, may course be repeated for *additional* units in the same term? (ex. PES 100) yes no
15. Please check **ONE** of the following that most appropriately describes the course:
Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research
Seminar Field Studies Independent Study Activity Supervision
16. Prerequisites (must be completed *before* proposed course) (MAT 137 or MAT 131) with grade greater than or equal to C
17. Corequisites (must be completed *with* proposed course) --

If course has no requisites, will all sections of the course require (If course has pre or co requisite, skip to question 19):

instructor consent department consent no consent

19. Is the course needed for a plan of study (major, minor, certificate)? yes no
Name of new plan? **BS Ed Mathematics; BS Mathematics –Extended: Actuarial Science and Statistics subplans.**

Note: A new plan or plan change form must be submitted with this request.

20. Does course duplicate content of existing courses within or outside of your college? yes no
If yes, list any courses this course may have duplicative material with and estimate percentage of duplication:

There is considerable duplication of applied statistics content with STA 270; however the context is very different and the course is taught at an altogether higher level. Students may only earn credit in one of STA 270 and 275 and so a given student will not see a duplication of material. The Department of Mathematics and Statistics will offer one section of STA 275 each year and will teach one section less of STA 270.

There is duplication of material with CENE 225, a calculus-based applied statistics course offered for Engineering majors. The emphasis may be a little different, with perhaps a greater theoretical base in the STA 275 course, but the material (and potentially the textbook) is generally similar. As STA 275 targets mathematics majors there is no impact on Civil and Environmental Engineering.

Please attach letters of support from each department whose course is listed above.

21. Will this course affect other academic plans, academic units, or enrollment? yes no
If yes, explain in justification and provide supporting documentation from the affected departments.

22. Is a potential equivalent course offered at a community college (lower division only)? yes no
If yes, does it require listing in the *Course Equivalency Guide*? yes no
Please list, if known, the institution, subject/catalog number of the course. _____

23. Justification for new course, including unique features if applicable. (Attach proposed syllabus in the approved university format).

Currently majors in the BS Ed in Mathematics Education and the BS Mathematics - Extended take the same applied statistics course as other students at NAU. Much time is spent on things which are quite simple for mathematics majors (creation of histograms and statistical charts, interpretation of statistical tables, mechanics of computation). Introducing a separate course for our majors will allow time to better spent on the theoretical foundations of the methods of applied statistics through more careful development of probability, some of which requires knowledge of calculus. The stronger foundation will benefit all our majors (some of our undergraduate programs do not allow STA 270 to count towards the major) and in particular will improve the knowledge base of BS Ed students for which this serves as the only statistics course in the major.

24. Names of current faculty qualified to teach this course **Brent Burch, John Hagood,
Michael Ratliff, Roy St. Laurent,
Rich Turek, Phil Turk, Jin Wang.**

25. If course will require additional faculty, space, or equipment, how will these requirements be satisfied? --

26. Will present library holdings support this course? yes no

If the course being submitted for approval is NOT a LIBERAL STUDIES course, please go to step 42.

LIBERAL STUDIES ONLY

Contact name: _____

Contact email: _____

Dept. Chair name: _____

Dept. Chair email: _____

College Contact name : _____

College Contact email: _____

27. This course is a Single section Multi-section

28. List names of faculty who may teach this course: _____

29. Section enrollment cap: _____

If this course is being submitted for approval as a new LIBERAL STUDIES course, please complete questions 30-33.

OR

If this course is being submitted for approval as a new JUNIOR LEVEL WRITING course, please complete questions 37-38.

OR

If this course is being submitted for approval as a new SENIOR CAPSTONE course, please complete questions 39-41.

NEW LIBERAL STUDIES COURSE

30. Thematic Focus (check all that apply): *If a topics course, must apply to ALL sections.*

Environmental Consciousness Technology and Its Impact Valuing the Diversity of Human Experience

31. Distribution Block (check one): *If a topics course, must apply to ALL sections.*

Aesthetic and Humanistic Inquiry Cultural Understanding Lab Science
Science/Applied Science Social and Political Worlds

32. Skills (check two): *If a topics course, must apply to ALL sections.*

Creative Thinking Critical Reading Effective Oral Communication Effective Writing Critical Thinking

Ethical Reasoning Quantitative/Spatial Analysis Scientific Inquiry Use of Technology

33. Is this a topics course? Yes No

If YES, please complete questions 34-36. If NO, please go to question 42.

TOPICS COURSE ONLY

34. Identify the Student Learning Outcomes that will be found in ALL topic syllabi offered under this course number. _____

35. Explain by what method(s) Student Learning Outcomes will be assessed in ALL topic syllabi offered under this course number.

36. Please attach an example of a Topic Syllabus offered under this course number.

NEW JUNIOR LEVEL WRITING COURSE (refer to question 19)

37. To which degree programs offered by your department/academic unit does this proposal apply? _____

Do you intend to offer ABC 300 and ABC 300W? yes no

If no, please submit a course delete form for the ABC 300.

GO TO question 42

NEW SENIOR CAPSTONE COURSE (refer to question 19)

39. To which degree programs offered by your department/academic unit does this proposal apply? _____

40. Does this proposal replace or modify an existing course or experience? yes no

If yes, which course(s)? _____

41. Do you intend to offer ABC 400 and ABC 400C? yes no

If no, please submit a course delete form for the ABC 400.

42. Approvals

<u>Janet M. McShane</u> Department Chair (if appropriate)	<u>20 Nov 2006</u> Date
<u>Walter A. Rudebrock</u> of college curriculum committee	<u>12-8-2006</u> Date
<u>J. J. Spennock</u> Dean of college	<u>7 Dec 06</u> Date

For Committees use only

For Liberal Studies Committee

Date

Action taken:

_____ Approved as submitted

_____ Approved as modified

For University Curriculum Committee

Date

Action taken:

✓ Approved as submitted

1/16/07
Date

_____ Approved as modified

STA 275: STATISTICAL ANALYSIS

General Information: STA 275 is a three-credit hour course meeting 150 minutes each week.

Prerequisites: A grade of C or better in MAT 137.

Catalog Description: STA 275 Statistics (3). A calculus-based applied statistics course. Descriptive statistics; discrete and continuous random variables; probability distributions including binomial, Poisson, normal and t distributions; one- and two-sample hypothesis tests and confidence intervals; simple linear regression and correlation. Credit cannot be earned in both STA 270 and STA 275.

Course Description: Statistics is the discipline that seeks to quantify uncertainty in decision making via data collection and analysis. As such, statistics is the cornerstone of much of scientific inquiry. STA 275 will focus on the use of data to draw conclusions in the face of uncertainty. We will develop and discuss data gathering, data analysis tools, the concept of a random variable, estimation and the evaluation of scientific hypotheses. The focus will be on the use of statistics particularly in science and engineering applications, using the tools of calculus to develop a deeper understanding of the material.

Student Learning Outcomes

Upon successful completion of the course, the student will be able to:

1. Understand and explain simple statistical methods commonly used in scientific research studies using correct statistical notation and appropriate language.
2. Construct informative graphical and numerical summaries of data appropriate for the type of data and the context in which it was collected, and interpret these summaries in written terms appropriate to the context in which the data was collected.
3. Understand the concept of a random variable; recognize standard probability distributions and be able to calculate probabilities for such random variables.
4. Recognize and carry out parameter estimation, construction of including confidence intervals, and hypothesis testing procedures both by hand and with the aid of a statistical calculator or using a statistical software program.
5. Understand the formalism of parameter estimation and hypothesis testing and how it relates to, supports, and advances the scientific method.
6. Properly apply the formalism of parameter estimation and hypothesis testing to scientific inquiry by appropriate statistical analysis of collected data.
7. Understand the limitations of the statistical methodology learned in the course, and be able to recognize problems in which the statistical methods learned are not appropriate.

Course Structure and Approach: The course will provide students with opportunities to learn about the methodology of statistics through a combination of lectures, discussions, individual and group projects, and computer laboratory activities according to instructor design and preference. Readings in the textbook will provide basic information to assist student learning.

Textbook: A textbook is required for this course. There are many possible textbooks available, including:

- (1) *Probability & Statistics for Engineering & the Sciences*, 6th ed., J.L. Devore, Duxbury, 2004.

- (2) *Statistics for Engineers & Scientists*, 2nd ed., W. Navidi, McGraw-Hill, 2007.
- (3) *Probability & Statistics for Engineers & Scientists*, 7th ed., R.E. Walpole, R.H. Myers, S.L. Myers & K. Ye, Prentice-Hall, 2002.

Calculator: A calculator is required to complete homework problems and for use in examinations. An excellent choice for this course is the TI-83 statistical calculator. [Note: In some sections (as indicated in the class schedule) the TI-83 calculator or its equivalent will be required.]

Computer Lab: The use of technology for data display, manipulation and calculation is a vital part of modern statistical analysis. So that you may become familiar with statistical software, one or more class sessions will be held in a computer lab in the Department of Mathematics & Statistics. There you will learn how to use a statistical software package [e.g., JMP]. The use of statistical software will be required to complete technology-based assignments and may also be used in completing other homework as indicated by your instructor.

Course Outline / Timeline

1. Descriptive Statistics – 3 days
Populations and samples; data collection; frequency distributions; graphical techniques for summarizing data; numerical measures of average and variation.
2. Probability – 16 days
Sample spaces, axioms of probability, counting principles, conditional probability & Bayes theorem. Discrete random variables; Binomial, Hypergeometric, Negative Binomial, and Poisson distributions. Continuous random variables; Uniform, Normal, Exponential, and t distributions.
3. Inferential Statistics – One Population – 10 days
The nature of inference; point estimation and confidence intervals for a population mean; point estimation and confidence intervals for a population proportion. The nature of hypothesis tests; hypothesis tests concerning a population mean; and hypothesis tests concerning a population proportion.
4. Inferential Statistics – Two Populations – 6 days
Confidence intervals and hypothesis tests concerning two population means; independent samples; paired samples. Confidence intervals and hypothesis tests concerning two population proportions
5. Simple linear regression – 4 days
The simple linear regression model. Estimating the model parameters. Inference about the slope and model prediction. Correlation.

6. Exams and computer laboratory activities – 6 days

Assessment of Student Learning Outcomes

Student progress toward achieving course objectives will be measured in a variety of ways:

- Student understanding of basic concepts and ability to properly apply statistical techniques will be evaluated by some or all of the following: regular homework assignments (at least weekly); quizzes; objective testing throughout the semester; and a comprehensive final examination.
- Student ability to properly use technology (graphing calculators or statistical software) as an aid to statistical calculation will be evaluated by special technology-based exercises, and in some sections individual projects.

- Student understanding of statistical procedures and ability to correctly interpret and explain them will be evaluated through class discussion, small group activities and test questions requiring short written responses.

Assessment will include a minimum of three in-class exams and a comprehensive final examination worth at least 25% of the overall grade. In addition, individual sections will use two or more of the following items: (a) collected traditional homework assignments; (b) collected homework requiring the use of statistical software; (c) quizzes; (d) group or individual projects requiring the collection of data, data analysis (using statistical software) and a written report.

Assignments, Examinations, Grading, and Other Policies

Hourly examinations and the comprehensive final exam. The emphasis in this course is on gaining a conceptual understanding and skill in the use of proper statistical procedures, not on memorization of formulas. Thus you will be allowed to bring a formula sheet with you for each exam. Examinations will consist of word problems requiring you to apply correct statistical procedures and interpret the results in the context of the problem. This will require the understanding of statistical terminology and the ability to convey results using correct technical English. For some problems, output from statistical software may be provided and you will be required to interpret the output in an appropriate manner. A portion (less than 20%) of the each examination may consist of multiple choice or true/false questions used to assess understanding of fundamental concepts, definitions and principles of statistics.

Homework assignments. Regular written homework assignments will be made requiring you to apply the statistical techniques discussed in class to solving problems. This will require familiarity and understanding of the mechanics of statistical techniques, their conceptual basis, the use of appropriate technology (statistical calculator or software), and the ability to interpret results using everyday language.

Grading System: A standard scale based on total points earned (*A*: 90% or higher; *B*: 80-89%, etc.) is suggested as a starting point.

Course Policies: These may vary from instructor to instructor. The following are suggested:

- Make-up tests will not be given except for institutional reasons
- Attendance at all class session is expected.
- Academic dishonesty will not be tolerated.

University policies: Students are responsible for the following University policies: Safe Environment, Students with Disabilities, Institutional Review Board, Academic Integrity, and the Academic Contact Hour Policy. A copy of these policies may be downloaded from the web site <http://jan.ucc.nau.edu/academicadmin/policy.doc>.

UNIVERSITY CURRICULUM COMMITTEE

Proposal for New Course

1. Is this course being proposed for Liberal Studies designation? Yes No
If yes, route completed form to Liberal Studies.
2. New course effective beginning what term and year? (ex. Spring 2008, Summer 2008) Fall 2007
See effective dates schedule.
3. College Engineering and Natural Sciences 4. Academic Unit Mathematics and Statistics
5. Course subject/catalog number STA 477 6. Units 3
7. Co-convened with -- 7a. Date approved by UGC --
(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented.)
8. Cross-listed with --
(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)
9. Long course title Time Series Analysis
(max 100 characters including spaces)
10. Short course title (max. 30 characters including spaces) Time Series Analysis
11. Catalog course description (max. 30 words, excluding requisites).
Methods for analyzing time series including: decomposition of time series, seasonal adjustment methods, index numbers; forecasting including causal models, trend models, smoothing models, autoregressive models, moving average and integrated models.
12. Grading option: Letter grade Pass/Fail or Both
(If both, the course may only be offered one way for each respective section.)
13. Is this a topics course? Yes No
14. May course be repeated for *additional* units? yes no
a. If yes, maximum units allowed? _____
b. If yes, may course be repeated for additional units in the same term? (ex. PES 100) yes no
15. Please check **ONE** of the following that most appropriately describes the course:
Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research
Seminar Field Studies Independent Study Activity Supervision
16. Prerequisites (must be completed *before* proposed course) STA 471 with grade greater than or equal to C
17. Corequisites (must be completed *with* proposed course) --
18. If course has no requisites, will all sections of the course require (If course has pre or co requisite, skip to question 19):
instructor consent department consent no consent

If the course being submitted for approval is NOT a LIBERAL STUDIES course, please go to step 42.

LIBERAL STUDIES ONLY

Contact name: _____

Contact email: _____

Dept. Chair name: _____

Dept. Chair email: _____

College Contact name : _____

College Contact email: _____

27. This course is a Single section Multi-section

28. List names of faculty who may teach this course: _____

29. Section enrollment cap: _____

If this course is being submitted for approval as a new LIBERAL STUDIES course, please complete questions 30-33.

OR

If this course is being submitted for approval as a new JUNIOR LEVEL WRITING course, please complete questions 37-38.

OR

If this course is being submitted for approval as a new SENIOR CAPSTONE course, please complete questions 39-41.

NEW LIBERAL STUDIES COURSE

30. Thematic Focus (check all that apply): *If a topics course, must apply to ALL sections.*

Environmental Consciousness Technology and Its Impact Valuing the Diversity of Human Experience

31. Distribution Block (check one): *If a topics course, must apply to ALL sections.*

Aesthetic and Humanistic Inquiry Cultural Understanding Lab Science

Science/Applied Science Social and Political Worlds

32. Skills (check two): *If a topics course, must apply to ALL sections.*

Creative Thinking Critical Reading Effective Oral Communication Effective Writing Critical Thinking

Ethical Reasoning Quantitative/Spatial Analysis Scientific Inquiry Use of Technology

33. Is this a topics course? Yes No

If YES, please complete questions 34-36. If NO, please go to question 42.

TOPICS COURSE ONLY

34. Identify the Student Learning Outcomes that will be found in ALL topic syllabi offered under this course number. _____

35. Explain by what method(s) Student Learning Outcomes will be assessed in ALL topic syllabi offered under this course number.

36. Please attach an example of a Topic Syllabus offered under this course number.

NEW JUNIOR LEVEL WRITING COURSE (refer to question 19)

37. To which degree programs offered by your department/academic unit does this proposal apply? _____

38. Do you intend to offer ABC 300 and ABC 300W? yes no

If no, please submit a course delete form for the ABC 300.

GO TO question 42

NEW SENIOR CAPSTONE COURSE (refer to question 19)

39. To which degree programs offered by your department/academic unit does this proposal apply? _____

40. Does this proposal replace or modify an existing course or experience? yes no

If yes, which course(s)? _____

41. Do you intend to offer ABC 400 and ABC 400C? yes no

If no, please submit a course delete form for the ABC 400.

42. Approvals

Janet M. McShane

Department Chair (if appropriate)

20 Nov 06

Date

Arthur A. Hildebrandt
of college curriculum committee

Dec 7, 2006

Date

L. J. Huennaka
Dean of college

7 Dec 06

Date

For Committees use only

For Liberal Studies Committee

Date

Action taken:

_____ Approved as submitted

_____ Approved as modified

For University Curriculum Committee

Date

Ron Ball

11/16/07

Action taken:

Approved as submitted

_____ Approved as modified

STA 477: TIME SERIES ANALYSIS

General Information: STA 477 is a three-credit hour course meeting 150 minutes each week.

Prerequisites: A grade of C or better in MAT 471.

Catalog Description: Methods for analyzing time series including: decomposition of time series, seasonal adjustment methods, index numbers; forecasting models including causal models, trend models, smoothing models, autoregressive models, moving average and integrated models.

Prerequisite: STA 471 with grade greater than or equal to C

Course Description: A time series is a collection of observations made sequentially through time. Examples occur in a variety of fields, ranging from economics to engineering. The particular essence of time series analysis is its concern with the nature of dependence among the members of the sequence of random variables. Specific methods of analyzing time series have been developed and constitute an important area of statistics. The methods covered in the course include: decomposition of time series, seasonal adjustment methods, index numbers; forecasting models including causal models, trend models, smoothing models, autoregressive models, moving average and integrated models.

Student Learning Outcomes

Upon successful completion of the course students will be able to:

1. Understand the important features of a given time series and be able to extract these in order to build a model.
2. Understand the definitions of a wide variety of models, and be able to put in place the necessary steps to build such models.
3. Be able to calculate things such as autocorrelation functions, regions of admissible parameter values, forecasts, etc.
4. Be able to apply statistical software package(s) in the analysis of time series.
5. Be able to interpret the output of statistical software package(s) in the analysis of time series.

Course Structure and Approach: The class will meet for three 50-minute periods per week for the fifteen week semester. Class meetings will consist of lectures, discussions and demonstration and use of statistical software.

Textbook: A textbook is required for this course. There are many possible textbooks available, including:

The Analysis of Time Series: An Introduction, Chris Chatfield, 6th ed., (2004).

Topics will be selected from Chapters 1-5, 13 and 14 of the text. If time permits, further material may be selected from Chapter 8.

Computer Lab:

A statistical software package (e.g. R) will be used in lectures and instructions to its use provided in handouts throughout the course. Computer-related code and output will be discussed. The students will be required to use the package for homework assignments and exams.

Course Outline / Timeline

1. Introduction – 3 days
 - Some Representative Time Series.
 - Terminology
 - Objectiveness of Time Series Analysis
 - Problems of Autocorrelation
2. Simple Descriptive Techniques – 10 days
 - Types of Variation
 - Stationary Time Series
 - The Time Plot
 - Transformations
 - Estimation and Elimination of Trend in the Absence of Seasonality
 - Estimation and Elimination of Trend and Seasonality
 - Tests of Randomness
 - Handling Real Data
3. Some Time Series Models – 19 days
 - Stochastic Processes and Their Properties
 - Stationary Processes and Autocorrelation
 - Autocorrelation and the Correlogram
 - Some Properties of the Population ACV.F and the Population AC.F
 - Moving Average Process MA(q)
 - Autoregressive Processes AR(p)
 - Autoregressive Moving Average Model ARMA (1,1)
4. Estimation of the Mean and the ACV.F– 4 days
 - Estimation of the Mean
 - Estimation of the Populations ACV.F and AC.F
5. ARMA models – 4 days
 - ARMA Processes
 - AC.F and PAC.F of ARMA(p,q)
 - Forecasting ARMA Processes
6. Integrated ARMA or ARIMA Models – 3 days
 - Building ARIMA Models
 - Seasonal ARMA Model
 - Mixed Seasonal ARMA
7. Modeling - 2 days
 - Assessment
 - Selection

Assessment of Student Learning Outcomes

Student progress toward achieving course objectives will be measured in a variety of ways:

- Student understanding of basic concepts and ability to properly apply the appropriate model will be evaluated by some or all of the following: regular homework assignments (at least weekly); tests and quizzes; and a comprehensive final examination.
- Student ability to properly use technology (statistical software package(s)) in the analysis of time series will be evaluated by special technology-based exercises on homework assignments and, possibly, in take-home portions of exams.
- Student understanding of methodology and ability to correctly interpret and explain concepts related to time series will be evaluated through class discussion, homework problems and test questions.

The precise nature of the assessments may vary from instructor to instructor. The following is one possible scheme:

- A number of homework assignments will be given during the semester. They will be weighted equally and may be done in groups.
- Two exams will be given – a midterm and a comprehensive final. Successful completion of the final is necessary to pass the class. The in-class component of the exams are closed book although students will be provided with necessary formulas. The format for the in-class portion of the exams will range from multiple choice, short answer and some longer ‘show your work’ problems.
- Take-home components of the two exams will be constructed in a similar way to homework assignments and will emphasize computer application. But in contrast to homework assignments, these take-home components of the exams are to be done independently using only class notes and the textbook.

Grading System: This may vary from instructor to instructor, but a standard scale based on total points earned (*A*: 90% or higher; *B*: 80-89%, etc.) is suggested as a starting point.

Course Policies: These may vary from instructor to instructor. The following are suggested:

- Make-up tests will not be given except for institutional reasons
- Attendance at all class session is expected.
- Academic dishonesty will not be tolerated.

University policies: Students are responsible for the following University policies: Safe Environment, Students with Disabilities, Institutional Review Board, Academic Integrity, and the Academic Contact Hour Policy. A copy of these policies may be downloaded from the web site <http://jan.ucc.nau.edu/academicadmin/policy.doc>.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR COURSE CHANGE

1. Is this a Liberal Studies or Diversity Course? Liberal Studies Diversity Both

2. Course change effective beginning of what term and year?
(ex. Spring 2008, Summer 2008) *See effective dates schedule.* Fall 2007

3. College Engineering and Natural Sciences 4. Academic Unit Mathematics and Statistics

5. Current course subject/catalog number STA 270

6. Current catalog title, course description, and units. (Copy and paste from current on-line academic catalog).

STA 270 APPLIED STATISTICS (3)

Graphical and quantitative description of data; binomial, normal, and t distributions; one- and two-sample hypothesis tests and confidence intervals; simple linear regression and correlation. Prerequisite: MAT 102X with a grade greater than or equal to C or Math Placement 46 or International Student Group SAS.

7. Is course currently cross-listed or co-convened? yes no

If yes, list course _____
Will this continue? _____

8. Is course an elective? or required for an academic plan/subplan?

BSF Forestry, BS Environmental Science, etc.
If required, for what academic plan/subplan? _____
If required, also submit *Proposal for New Plan or Plan Change*.

9. Will other courses or academic units, be affected by this change? (Consider prerequisites, degree requirements, etc.) yes no
If yes, explain in the justification and provide supporting documentation from the affected departments.

10. Does this change affect community college articulation? yes no
If yes, explain how in the justification and provide supporting documentation from the affected institutions.

Is the course a Common Course as defined by your Articulation Task Force? yes no

If yes, has the change been approved by the Articulation Task Force? yes no

If this course has been listed in the Course Equivalency Guide, should that listing be left as is, or be revised?

If revised, how should it be revised? _____

FOR SECTION 11 ONLY COMPLETE WHAT IS CHANGING.

11. a. Proposed course subject /catalog number _____ b. Proposed units _____

c. If subject/catalog number change, is there a course fee attached to the current subject/catalog number that needs to be moved? Yes No

If yes, please attach a Justification Form for Instructional Fees indicating the new course subject/catalog number change.

d. Proposed to co-convene with _____ Date approved by UGC _____
(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented.)

e. Proposed to cross-list with _____
(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)

f. Proposed long course title _____
(max 100 characters including spaces)

g. Proposed short course title _____
(max 30 characters including spaces)

h. Proposed catalog course description (max. 30 words, excluding requisites)

Graphical and quantitative description of data; binomial, normal, and t distributions; one- and two-sample hypothesis tests and confidence intervals; simple linear regression and correlation.
Credit cannot be earned in both STA 270 and STA 275. Prerequisite: MAT 102X with a grade greater than or equal to C or Math Placement 46 or International Student Group SAS

i. Proposed grading option: Letter grade Pass/Fail or Both
(If both, the course may only be offered one way for each respective section.)

j. May course be repeated for additional units? yes no

j.1. If yes, maximum units allowed? _____

j.2. If yes, may course be repeated for additional units in the same term? (ex. BIO 300, PES 100)
yes no

k. Please check ONE of the following that most appropriately describes the proposed course change(s):

Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research
Seminar Field Studies Independent Study Activity Supervision

l. Proposed prerequisites (must be completed before) _____

m. Proposed corequisites (must be completed with) _____

n. If course has no requisites, will all sections of the course require: (If course has pre or co requisite, skip to question 12)
Instructor consent Department consent No consent

12. Justification for course change. Please indicate how past assessments of student learning prompted proposed changes.

The Department has proposed a new course STA 275, similar to STA 270, for its majors. This will have a stronger theoretical base than STA 270 but there will be a substantial overlap of material.

13. Approvals

Janit M. McShane 20 Nov 2006
Department Chair/ Unit Head (if appropriate) Date

William A. Woldbrodt 12-07-2006
Chair of college curriculum committee Date

G. J. Huenneke 7 Dec 06
Dean of college Date

For Committee use only

Ron B. D. 1/16/07
For University Curriculum Committee Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to college dean, department chair, and Academic Information Office.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR COURSE CHANGE

1. Is this a Liberal Studies or Diversity Course? Liberal Studies Diversity Both

2. Course change effective beginning of what term and year?
(ex. Spring 2008, Summer 2008) *See effective dates schedule.* Fall 2007

3. College Engineering and Natural Sciences 4. Academic Unit Mathematics and Statistics

5. Current course subject/catalog number STA 371

6. Current catalog title, course description, and units. (*Copy and paste from current on-line academic catalog*).

STA 371 INTERMEDIATE STATISTICS (3)

Applies statistical methods to real world problems. Simple and multiple regression, ANOVA, experimental design, and categorical data analysis. Designing studies and collecting data, analyzing information, and writing reports. Prerequisite: STA 270 with grade greater than or equal to C

7. Is course currently cross-listed or co-convened? yes no
If yes, list course _____
Will this continue? _____

8. Is course an elective? or required for an academic plan/subplan?
BS - Mathematics (Extended Major) :
If required, for what academic plan/subplan? Statistics subplan; Statistics Minor
If required, also submit *Proposal for New Plan or Plan Change*.

9. Will other courses or academic units, be affected by this change? (Consider prerequisites, degree requirements, etc.) yes no
If yes, explain in the justification and provide supporting documentation from the affected departments.

10. Does this change affect community college articulation? yes no
If yes, explain how in the justification and provide supporting documentation from the affected institutions.

Is the course a Common Course as defined by your Articulation Task Force? yes no
If yes, has the change been approved by the Articulation Task Force? yes no

If this course has been listed in the *Course Equivalency Guide*, should that listing
be left as is, or be revised?
If revised, how should it be revised? _____

FOR SECTION 11 ONLY COMPLETE WHAT IS CHANGING.

Only fill in what is changing.

If information is remaining the same, leave the section blank.

11. a. Proposed course subject /catalog number _____ b. Proposed units _____

c. If subject/catalog number change, is there a course fee attached to the current subject/catalog number that needs to be moved? Yes No

If yes, please attach a Justification Form for Instructional Fees indicating the new course subject/catalog number change.

d. Proposed to co-convene with _____ Date approved by UGC _____
(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented.)

e. Proposed to cross-list with _____
(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)

f. Proposed long course title _____
(max 100 characters including spaces)

g. Proposed short course title _____
(max 30 characters including spaces)

h. Proposed catalog course description (max. 30 words, excluding requisites)

i. Proposed grading option: Letter grade Pass/Fail or Both
(If both, the course may only be offered one way for each respective section.)

j. May course be repeated for additional units? yes no

j.1. If yes, maximum units allowed? _____

j.2. If yes, may course be repeated for additional units in the same term? (ex. BIO 300, PES 100)
yes no

k. Please check **ONE** of the following that most appropriately describes the proposed course change(s):

Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research
Seminar Field Studies Independent Study Activity Supervision

l. Proposed prerequisites (must be completed before) _____
(STA 270 or STA 275) with grades greater than or equal to C

m. Proposed corequisites (must be completed with) _____

n. If course has no requisites, will all sections of the course require: (If course has pre or co requisite, skip to question 12)
Instructor consent Department consent No consent

12. Justification for course change. Please indicate how past assessments of student learning prompted proposed changes.

The Department has proposed a new course, similar to STA 270, for its majors. This will have a stronger theoretical base than STA 270 and will serve as an alternate prerequisite for STA 371.

13. Approvals

Janet M. McShane 20 Nov 2006
Department Chair/ Unit Head (if appropriate) Date

Steven R. Goldblatt Dec 7 2006
Chair of college curriculum committee Date

[Signature] 7 Dec 06
Dean of college Date

For Committee use only

Ron B. [Signature] 1/16/07
For University Curriculum Committee Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to college dean, department chair, and Academic Information Office.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR COURSE CHANGE

1. Is this a Liberal Studies or Diversity Course? Liberal Studies Diversity Both

2. Course change effective beginning of what term and year?
(ex. Spring 2008, Summer 2008) *See effective dates schedule.* Fall 2007

3. College Engineering and Natural Sciences 4. Academic Unit Mathematics and Statistics

5. Current course subject/catalog number STA 471

6. Current catalog title, course description, and units. (*Copy and paste from current on-line academic catalog*).

STA 471 REGRESSION ANALYSIS (3)

Simple linear, multiple linear, curvilinear, and multiple curvilinear regression models. Simple, multiple, and partial correlation. Variable selection techniques. Prerequisite: STA 270 and (MAT 136 or MAT 136H) with grades greater than or equal to C

7. Is course currently cross-listed or co-convened? yes no

If yes, list course _____
Will this continue? _____

8. Is course an elective? or required for an academic plan/subplan?

BS- Mathematics (Extended Major) :
Actuarial Science and Statistics subplans
and B.S. Environmental Sciences –Applied
If required, for what academic plan/subplan? Mathematics (extended major)

If required, also submit *Proposal for New Plan or Plan Change*.

9. Will other courses or academic units, be affected by this change? (Consider prerequisites, degree requirements, etc.) yes no
If yes, explain in the justification and provide supporting documentation from the affected departments.

Environmental Science is affected but the change is only to add an alternate course as a prerequisite.

10. Does this change affect community college articulation? yes no
If yes, explain how in the justification and provide supporting documentation from the affected institutions.

Is the course a Common Course as defined by your Articulation Task Force? yes no
If yes, has the change been approved by the Articulation Task Force? yes no

If this course has been listed in the *Course Equivalency Guide*, should that listing
be left as is, or be revised?
If revised, how should it be revised? _____

FOR SECTION 11 ONLY COMPLETE WHAT IS CHANGING.

11. a. Proposed course subject /catalog number _____ b. Proposed units _____

c. If subject/catalog number change, is there a course fee attached to the current subject/catalog number that needs to be moved? Yes No

If yes, please attach a Justification Form for Instructional Fees indicating the new course subject/catalog number change.

Only fill in what is changing.

If information is remaining the same, leave the section blank.

d. Proposed to co-convene with _____ Date approved by UGC _____
(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented.)

e. Proposed to cross-list with _____
(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)

f. Proposed long course title _____
(max 100 characters including spaces)

g. Proposed short course title _____
(max 30 characters including spaces)

h. Proposed catalog course description (max. 30 words, excluding requisites)

i. Proposed grading option: Letter grade Pass/Fail or Both

(If both, the course may only be offered one way for each respective section.)

j. May course be repeated for additional units? yes no

j.1. If yes, maximum units allowed? _____

j.2. If yes, may course be repeated for additional units in the same term? (ex. BIO 300, PES 100)

yes no

k. Please check **ONE** of the following that most appropriately describes the proposed course change(s):

Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research

Seminar Field Studies Independent Study Activity Supervision

(STA 270 or STA 275) and (MAT 136 or MAT 136H) with grades greater than or equal to C

l. Proposed prerequisites (must be completed before) _____

m. Proposed corequisites (must be completed with) _____

n. If course has no requisites, will all sections of the course require: (If course has pre or co requisite, skip to question 12)

Instructor consent Department consent No consent

12. Justification for course change. Please indicate how past assessments of student learning prompted proposed changes.

The Department has proposed a new course, similar to STA 270, for its majors. This will have a stronger theoretical base than STA 270 and will serve as an alternate prerequisite for STA 471.

13. Approvals

Janet M. McShane 20 Nov. 2006
Department Chair/ Unit Head (if appropriate) Date

Debra A. Woodworth 12-07-2006
Chair of college curriculum committee Date

RJ Hueneke 7 Dec 06
Dean of college Date

For Committee use only

Ron Batt 1/14/07
For University Curriculum Committee Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to college dean, department chair, and Academic Information Office.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR COURSE CHANGE

1. Is this a Liberal Studies or Diversity Course? Liberal Studies Diversity Both

2. Course change effective beginning of what term and year?
(ex. Spring 2008, Summer 2008) *See effective dates schedule.* Fall 2007

3. College Engineering and Natural Sciences 4. Academic Unit Mathematics and Statistics

5. Current course subject/catalog number STA 472

6. Current catalog title, course description, and units. (*Copy and paste from current on-line academic catalog*).

STA 472 NONPARAMETRIC STATISTICS (3)

Surveys nonparametric procedures, including binomial, Mann-Whitney, Wilcoxon, Kruskal-Wallis, Friedman, Kolmogorov-Smirnov, and chi-square tests; comparisons to parametric techniques. Prerequisite: STA 270 with grade greater than or equal to C

7. Is course currently cross-listed or co-convened? yes no

If yes, list course _____
Will this continue? _____

8. Is course an elective? or required for an academic plan/subplan?

**BS- Mathematics (Extended Major)
Statistics subplan and B.S. Environmental
Sciences – Applied Mathematics (extended
major)**

If required, for what academic plan/subplan? _____
If required, also submit *Proposal for New Plan or Plan Change*.

9. Will other courses or academic units, be affected by this change? (Consider prerequisites, degree requirements, etc.) yes no

If yes, explain in the justification and provide supporting documentation from the affected departments.

Environmental Science is affected but the change is only to add an alternate course as a prerequisite.

10. Does this change affect community college articulation? yes no
If yes, explain how in the justification and provide supporting documentation from the affected institutions.

Is the course a Common Course as defined by your Articulation Task Force? yes no

If yes, has the change been approved by the Articulation Task Force? yes no

If this course has been listed in the *Course Equivalency Guide*, should that listing be left as is, or be revised?

If revised, how should it be revised? _____

FOR SECTION 11 ONLY COMPLETE WHAT IS CHANGING.

Only fill in what is changing.

If information is remaining the same, leave the section blank.

11. a. Proposed course subject /catalog number _____ b. Proposed units _____

c. If subject/catalog number change, is there a course fee attached to the current subject/catalog number that needs to be moved? Yes No

If yes, please attach a Justification Form for Instructional Fees indicating the new course subject/catalog number change.

d. Proposed to co-convene with _____ Date approved by UGC _____
(Must be approved by UGC prior to bringing to UCC. Both course syllabi must be presented.)

e. Proposed to cross-list with _____
(Please submit a single cross-listed syllabus that will be used for all cross-listed courses.)

f. Proposed long course title _____
(max 100 characters including spaces)

g. Proposed short course title _____
(max 30 characters including spaces)

h. Proposed catalog course description (max. 30 words, excluding requisites)

i. Proposed grading option: Letter grade Pass/Fail or Both
(If both, the course may only be offered one way for each respective section.)

j. May course be repeated for additional units? yes no

j.1. If yes, maximum units allowed? _____

j.2. If yes, may course be repeated for additional units in the same term? (ex. BIO 300, PES 100)
yes no

k. Please check **ONE** of the following that most appropriately describes the proposed course change(s):

Lecture w/0 unit embedded lab Lecture only Lab only Clinical Research
Seminar Field Studies Independent Study Activity Supervision

l. Proposed prerequisites (must be completed before) _____
(STA 270 or STA 275) with grade greater than or equal to C

m. Proposed corequisites (must be completed with) _____

n. If course has no requisites, will all sections of the course require: (If course has pre or co requisite, skip to question 12)
Instructor consent Department consent No consent

12. Justification for course change. Please indicate how past assessments of student learning prompted proposed changes.

The Department has proposed a new course, similar to STA 270, for its majors. This will have a stronger theoretical base than STA 270 and will serve as an alternate prerequisite for STA 472.

13. Approvals

Janet M. McShane 30 Nov 2006
Department Chair/ Unit Head (if appropriate) Date

William A. Glendon 12-07-06
Chair of college curriculum committee Date

G. J. Huennike 7 Dec 06
Dean of college Date

For Committee use only

Ron Ball 1/16/07
For University Curriculum Committee Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to college dean, department chair, and Academic Information Office.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR NEW ACADEMIC PLAN, PLAN CHANGE, OR PLAN DELETION

1. College Engineering and Natural Sciences
2. Academic Unit Mathematics and Statistics
3. Academic Plan Name B.S.Ed. Mathematics-Secondary
4. Subplan (if applicable)? --
5. Effective Date FALL 2007
6. Is this proposal for a : New Plan Plan Change Plan Deletion
(Please refer to Plan and Subplan definitions) New Subplan Subplan Change Subplan Deletion

7.

For Plan Changes, place the existing catalog text in this column. Please copy and paste the text directly from the current on line academic catalog:

<http://www4.nau.edu/aio/AcademicCatalog/academiccatalogs.htm>

Be sure you include all catalog text that pertains to this plan change

For New Plans, leave this column blank.

B.S. ED. MATHEMATICS SECONDARY EDUCATION

To earn this degree, you must complete at least 120 units of coursework, which we describe in the sections that follow:

- at least 32 units of liberal studies requirements Be aware that you may not use courses with an MAT or STA prefix to satisfy these liberal studies requirements. Please note that the usual 35 units for liberal studies are reduced to 32 units for mathematics majors, who are exempted from the 3-unit mathematics foundation requirement.
- at least 50 units of major requirements
- at least 31 units of teacher-preparation requirements
- elective courses, if needed, to reach an overall total of at least 120 units

Be aware that some courses required for your degree may have prerequisites that you must also take. Check the courses in the appropriate subject. (You may be able to count these prerequisites toward your liberal studies or general elective credit.)

Show the proposed changes in this column. Please BOLD the changes, to differentiate from what is not changing.

(Describe the changed requirements under headings that match those used in the left column. Please be aware that if the units are not totaled correctly, the catalog editor will adjust them accordingly.)

B.S. ED. MATHEMATICS SECONDARY EDUCATION

To earn this degree, you must complete at least 120 units of coursework, which we describe in the sections that follow:

- at least 32 units of liberal studies requirements Be aware that you may not use courses with an MAT or STA prefix to satisfy these liberal studies requirements. Please note that the usual 35 units for liberal studies are reduced to 32 units for mathematics majors, who are exempted from the 3-unit mathematics foundation requirement.
- at least 50 units of major requirements
- at least 31 units of teacher-preparation requirements
- elective courses, if needed, to reach an overall total of at least 120 units

Be aware that some courses required for your degree may have prerequisites that you must also take. Check the courses in the appropriate subject. (You may be able to count these prerequisites toward your liberal studies or general elective credit.)

7.

Please note that you must have a grade of C or better in each mathematics or statistics course that you use to fulfill the requirements of this major.

Also be aware that you must complete NAU's diversity requirements by taking two 3-unit courses, one in ethnic diversity and one in global awareness. These courses may be used to meet other requirements within your academic plan if you choose them carefully. Click here for a [list of the available diversity courses](#).

Additionally, be aware that you must have a grade point average of at least 2.5 in all of your NAU coursework in order to graduate. This requirement applies to all B.S.Ed. majors at NAU.

Also note that NAU requires that at least 30 units of the courses you take for your degree must be upper-division courses (those numbered 300 and above).

Finally, please note that you may be able to use some courses to meet more than one requirement; however, you must still meet the total of at least 120 units to graduate. Contact your advisor for details.

Finally be aware that, for the B.S.Ed. degree, you must have the following:

a grade of at least B for the English foundation requirement (ENG 105 or equivalent) (If you don't receive a 3.0, you may complete an additional writing course, at the 200 level or above, with at least a B, to meet this requirement.)

MAJOR REQUIREMENTS

You must complete the following 50 units:

MAT 136, 137, 226, 301, 318, 365, 401, 402, and 442C and STA 270 (35 units)

CS 122 (3 units) (If you complete a minor or major in computer science, you may add 3 units to your general electives instead.)

MAT 320W, which meets NAU's junior writing requirement (3 units)

MAT 411C or MAT 431C (3 units)

6 additional units of MAT and STA courses numbered 238 or above

TEACHER-PREPARATION REQUIREMENTS

You must complete 31 units of professional courses offered by the College of Education to qualify for certification to teach mathematics in Arizona and most other states.

Click here for more information about [Teacher](#)

Please note that you must have a grade of C or better in each mathematics or statistics course that you use to fulfill the requirements of this major.

Also be aware that you must complete NAU's diversity requirements by taking two 3-unit courses, one in ethnic diversity and one in global awareness. These courses may be used to meet other requirements within your academic plan if you choose them carefully. Click here for a [list of the available diversity courses](#).

Additionally, be aware that you must have a grade point average of at least 2.5 in all of your NAU coursework in order to graduate. This requirement applies to all B.S.Ed. majors at NAU.

Also note that NAU requires that at least 30 units of the courses you take for your degree must be upper-division courses (those numbered 300 and above).

Finally, please note that you may be able to use some courses to meet more than one requirement; however, you must still meet the total of at least 120 units to graduate. Contact your advisor for details.

Finally be aware that, for the B.S.Ed. degree, you must have the following:

- a grade of at least B for the English foundation requirement (ENG 105 or equivalent) (If you don't receive a 3.0, you may complete an additional writing course, at the 200 level or above, with at least a B, to meet this requirement.)

MAJOR REQUIREMENTS

You must complete the following 47 units:

- MAT 136, 137, 226, 301, 318, 365, 401, 402, and 442C and STA 275 (35 units)

- CS 122 (3 units) (If you complete a minor or major in computer science, you may add 3 units to your general electives instead.)

- MAT 320W, which meets NAU's junior writing requirement (3 units)

- MAT 411C or MAT 431C (3 units)

- 6 additional units of MAT and STA courses numbered 238 or above

TEACHER-PREPARATION REQUIREMENTS

You must complete 31 units of professional courses offered by the College of Education to qualify for certification to teach mathematics in Arizona and most other states.

Preparation in Secondary Education . You should also receive advisement from the College of Education for this part of your academic plan.

Please note that these 31 units include ECI 495C, which meets NAU's senior capstone requirement. Also note that for the B.S.Ed. in mathematics, you substitute MAT 302 for ECI 308.

GENERAL ELECTIVES

Additional coursework is required, if, after you have met the previously described requirements, you have not yet completed a total of 120 units of credit.

You may take these remaining courses from any academic areas, using these courses to pursue your specific interests and goals. We encourage you to consult with your advisor to select the courses that will be most advantageous to you. (Please note that you may also use prerequisites or transfer credits as electives if they weren't used to meet major, minor, or liberal studies requirements.)

Click here for more information about Teacher Preparation in Secondary Education . You should also receive advisement from the College of Education for this part of your academic plan.

Please note that these 31 units include ECI 495C, which meets NAU's senior capstone requirement. Also note that for the B.S.Ed. in mathematics, you substitute MAT 302 for ECI 308.

GENERAL ELECTIVES

Additional coursework is required, if, after you have met the previously described requirements, you have not yet completed a total of 120 units of credit.

You may take these remaining courses from any academic areas, using these courses to pursue your specific interests and goals. We encourage you to consult with your advisor to select the courses that will be most advantageous to you. (Please note that you may also use prerequisites or transfer credits as electives if they weren't used to meet major, minor, or liberal studies requirements.)

8. For undergraduate plans, will this requirement be a student individualized plan*? no yes

*A *Student Individualized Plan* is an academic requirement that varies by student, such as the 15-unit BAiLS focus, for which coursework requirements are established by the student in consultation with the advisor.

If yes, the academic unit listed at the top of this form hereby takes responsibility for providing complete information about each student's individual requirements for the degree audit system.

9. For undergraduate plans, will a milestone** be used to:

- a. verify satisfactory completion of a non course requirement.
 b. indicate admission to a major.
 c. will not be used.

**A *Milestone* is used to record noncourse requirements, such as the HRM 800-hour work experience requirement or admission to Business Major status.

If yes, the academic unit listed at the top of this form hereby takes responsibility for maintaining the milestone and keeping individual student records up to date.

10. Please list the Learning Outcomes of the Plan/Subplan (see degree major assessment webpage - <http://www4.nau.edu/assessment/main/degree/degree.htm>).

1. Develop the skills necessary to communicate clearly and in professional fashion (both verbally and in written form) to specialists and non-specialists using proper terminology and structure;
2. develop a solid, balanced, contemporary foundation in mathematics, statistics, mathematics education or actuarial science, including confidence in the use of mathematics and statistics and an awareness of concepts and advances of recent and current interest;
3. Develop the ability to use mathematics, statistics, mathematics pedagogy, or actuarial science to solve a wide range of basic problems;
4. Develop the ability to reason using the methods of the discipline;

5. Develop the ability to integrate knowledge and to use multiple perspectives to model simple realistic situations (or design curricula and delivery systems) and to solve related problems;
6. Develop an active approach to learning including the abilities to read disciplinary material in order to learn on their own and to use technology to experiment with functions and procedures;
7. Develop a context for disciplinary content and applications, including typical settings for the appearance of different concepts and methods in other disciplines and an appreciation for the development of the concepts and methods; and
8. Develop the skills necessary for successful entry into careers in the mathematical sciences and mathematics education or to pursue advanced study in their area and related areas.

11. Justification for proposal. Please indicate how past assessments of student learning prompted proposed changes.

The only change is to replace STA 270: Applied Statistics with a new course STA 27⁵, pending approval, that is a calculus-based course in applied statistics. The new course has a better mathematical foundation than STA 270 and will provide a more substantial statistical base for our secondary education majors.

(There is no real change to the number of hours; this merely corrects a previous typo.)

12. If this academic plan/subplan will require additional faculty, space, or equipment, how will these requirements be satisfied?
--

13. Will this academic plan/subplan affect other majors, liberal studies course offerings, plans/subplans, curricula, or enrollment at NAU? **No**
If so, attach supporting documentation from the affected departments/units and college dean.
--

14. Will present library holdings support this academic plan/subplan?
Yes

Certifications

Jamit M. McShane 20 Nov 2006
Department Chair/ Unit Head (if appropriate) Date

Wanda A. Kucharski 12-07-2006
Chair of college curriculum committee Date

L. J. Huennake 7 Dec 06
Dean of college Date

For committee use only

Ron B. J. 1/16/07
For University Curriculum Committee Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to the college dean, department chair, and Academic Information Office after approval.

requirements by taking two 3-unit courses, one in ethnic diversity and one in global awareness. These courses may be used to meet other requirements within your academic plan if you choose them carefully. Click here for a [list of the available diversity courses](#)

Also be aware that NAU requires that at least 30 units of the courses you take for your degree must be upper-division courses (those numbered 300 and above).

Finally, please note that you may be able to use some courses to meet more than one requirement; however, you must still meet the total of at least 120 units to graduate. Contact your advisor for details.

MAJOR REQUIREMENTS

These requirements include common courses as well as courses that are specific to your particular emphasis, for a total of at least 57 units.

You must complete the following 36 units regardless of which emphasis you choose:

- core courses: MAT 136, 137, 226, 238, and 316 (18 units)
- MAT 320W, which meets NAU's junior writing requirement (3 units)
- CS 122 (3 units) (If you complete a minor or major in computer science, you may add 3 units to your general electives instead.)
- MAT 411C, 431C, and STA 473C (9 units) (Please note that these three courses together meet part of NAU's senior capstone requirement for this major; the remainder of the requirement is filled within your specific emphasis.)

In addition, you complete the following 24-27 units, which are specific to the emphasis—mathematics, applied mathematics, statistics, or actuarial science—you choose:

Actuarial Science Emphasis

You take these 27 units:

- ACC 255 and 256 (6 units)
- STA 270 and 471 (6 units)
- MAT 239, 362, 467, and 480 (12 units)
- STA 474C, which meets the remainder of NAU's senior capstone requirement (3 units)

Applied Mathematics Emphasis

You take these 24 units:

requirements by taking two 3-unit courses, one in ethnic diversity and one in global awareness. These courses may be used to meet other requirements within your academic plan if you choose them carefully. Click here for a [list of the available diversity courses](#)

Also be aware that NAU requires that at least 30 units of the courses you take for your degree must be upper-division courses (those numbered 300 and above).

Finally, please note that you may be able to use some courses to meet more than one requirement; however, you must still meet the total of at least 120 units to graduate. Contact your advisor for details.

MAJOR REQUIREMENTS

These requirements include common courses as well as courses that are specific to your particular emphasis, for a total of at least 57 units.

You must complete the following 33 units regardless of which emphasis you choose:

- core courses: MAT 136, 137, 226, 238, and 316 (18 units)
- MAT 320W, which meets NAU's junior writing requirement (3 units)
- CS 122 (3 units) (If you complete a minor or major in computer science, you may add 3 units to your general electives instead.)
- MAT 411C, 431C, and STA 473C (9 units) (Please note that these three courses together meet part of NAU's senior capstone requirement for this major; the remainder of the requirement is filled within your specific emphasis.)

In addition, you complete the following 24-27 units, which are specific to the emphasis—mathematics, applied mathematics, statistics, or actuarial science—you choose:

Actuarial Science Emphasis

You take these ~~27~~³⁰ units:

- ACC 255 and 256 (6 units)
- STA 270 or STA 275 (3 units)
- STA 471 and 477 (6 units)
- MAT 239, 362, 467, and 480 (12 units)
- STA 474C, which meets the remainder of NAU's senior capstone requirement (3 units)

Applied Mathematics Emphasis

- MAT 239 and 362 (6 units)
- three of MAT 335, 368, 461 or 467 (9 units)
- one of MAT 412C or 441C or STA 474C, each of which meets the remainder of NAU's senior capstone requirement (3 units)
- MAT 480 or MAT 485 (3 units)
- 3 units of additional courses from MAT or STA courses numbered 300 or above (except MAT 301, 302, 401, and 402)

Mathematics Emphasis

You take these 24 units:

- one of MAT 239, 318, 365, and 442C (3 units)
- two of MAT 412C or 441C or STA 474C, each of which meets the remainder of NAU's senior capstone requirement (6 units)
- MAT 485 (3 units)
- 12 units of additional courses from MAT 239 and MAT or STA courses numbered 300 or above (except MAT 301, 302, 401, and 402)

Statistics Emphasis

You take these 24 units:

- STA 270, 371, 471, and 472 (12 units)
- STA 474C, which meets the remainder of NAU's senior capstone requirement (3 units)
- STA 485 or MAT 485 or MAT 480 (3 units)
- 6 units of additional courses from MAT 239 and MAT or STA courses numbered 300 or above (except MAT 301, 302, 401, and 402)

GENERAL ELECTIVES

Additional coursework is required, if, after you have met the previously described requirements, you have not yet completed a total of 120 units of credit.

You may take these remaining courses from any academic areas, using these courses to pursue your specific interests and goals. We encourage you to consult with your advisor to select the courses that will be most advantageous to you. (Please note that you may also use prerequisites or transfer credits as electives if they weren't used to meet major, minor, or liberal studies requirements.)

You take these 24 units:

- MAT 239 and 362 (6 units)
- three of MAT 335, 368, 461 or 467 (9 units)
- one of MAT 412C or 441C or STA 474C, each of which meets the remainder of NAU's senior capstone requirement (3 units)
- MAT 480 or MAT 485 (3 units)
- 3 units of additional courses from MAT or STA courses numbered 300 or above (except MAT 301, 302, 401, and 402)

Mathematics Emphasis

You take these 24 units:

- one of MAT 239, 318, 365, and 442C (3 units)
- two of MAT 412C or 441C or STA 474C, each of which meets the remainder of NAU's senior capstone requirement (6 units)
- MAT 485 (3 units)
- 12 units of additional courses from MAT 239 and MAT or STA courses numbered 300 or above (except MAT 301, 302, 401, and 402)

Statistics Emphasis

You take these 24 units:

- STA 270 or 275, 371, 471, 472 and 477 (15 units)
- STA 474C, which meets the remainder of NAU's senior capstone requirement (3 units)
- STA 485 or MAT 485 or MAT 480 (3 units)
- 3 units of additional courses from MAT 239 and MAT or STA courses numbered 300 or above (except MAT 301, 302, 401, and 402)

GENERAL ELECTIVES

Additional coursework is required, if, after you have met the previously described requirements, you have not yet completed a total of 120 units of credit.

You may take these remaining courses from any academic areas, using these courses to pursue your specific interests and goals. We encourage you to consult with your advisor to select the courses that will be most advantageous to you. (Please note that you may also use prerequisites or transfer credits as electives if they weren't used to meet major, minor, or liberal studies requirements.)

8. For undergraduate plans, will this requirement be a student individualized plan*? no yes

*A *Student Individualized Plan* is an academic requirement that varies by student, such as the 15-unit BAiLS focus, for which coursework requirements are established by the student in consultation with the advisor.

If yes, the academic unit listed at the top of this form hereby takes responsibility for providing complete information about each student's individual requirements for the degree audit system.

9. For undergraduate plans, will a milestone** be used to:

- a. verify satisfactory completion of a non course requirement.
 b. indicate admission to a major.
 c. will not be used.

**A *Milestone* is used to record noncourse requirements, such as the HRM 800-hour work experience requirement or admission to Business Major status.

If yes, the academic unit listed at the top of this form hereby takes responsibility for maintaining the milestone and keeping individual student records up to date.

10. Please list the Learning Outcomes of the Plan/Subplan (see degree major assessment webpage - <http://www4.nau.edu/assessment/main/degree/degree.htm>).

This plan addresses three general student learning outcomes: breadth and depth of mathematical knowledge, ability to communicate mathematics clearly, and facility with mathematical reasoning. Broad mathematical knowledge implies a basic understanding of the theory and applications of calculus, set theory, algebraic structures, and probability. Students should be able to communicate effectively, and be comfortable collaborating with others on mathematical problems. Mathematical reasoning involves the ability to read and understand formal mathematics, construct rigorous proofs, and solve mathematical problems, as well as an understanding of the context and applications of mathematics, and facility with the use of technology in a mathematical context.

11. Justification for proposal. Please indicate how past assessments of student learning prompted proposed changes.

One change is to replace STA 270: Applied Statistics with a new course STA 275, which is pending approval; this is a calculus-based course in applied statistics. The new course has a better mathematical foundation than STA 270 and will provide a more substantial statistical base for majors in the actuarial science and statistics emphases in the extended mathematics major.

Another new course, STA 477, pending approval will be required for the same two subplans in the extended major. Together with STA 471 the new course fulfills the Society of Actuaries' Validation by Educational Experience (VEE) requirement for Applied Statistical Methods. The course will also be invaluable to statistics majors as it allows the analysis of a different type of data set to other courses.

(There is no real change to the number of hours; this merely corrects a previous typo.)

12. If this academic plan/subplan will require additional faculty, space, or equipment, how will these requirements be satisfied?

--

13. Will this academic plan/subplan affect other majors, liberal studies course offerings, plans/subplans, curricula, or enrollment at NAU? **No**

If so, attach supporting documentation from the affected departments/units and college dean.

--

14. Will present library holdings support this academic plan/subplan?

Yes

Certifications

Janet M. McShane 20 Nov 2006
Department Chair/ Unit Head (if appropriate) Date

Wayne A. Albrecht 12-07-2006
Chair of college curriculum committee Date

J. J. Huennike 7 Dec 06
Dean of college Date

For committee use only

Ron Bell 1/16/07
For University Curriculum Committee Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to the college dean, department chair, and Academic Information Office after approval.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR NEW ACADEMIC PLAN, PLAN CHANGE, OR PLAN DELETION

1. College Engineering and Natural Sciences
2. Academic Unit Mathematics and Statistics
3. Academic Plan Name Minor in Mathematics Secondary Education
4. Subplan (if applicable)? -
5. Effective Date FALL 2007
6. Is this proposal for a : New Plan Plan Change Plan Deletion
(Please refer to Plan and Subplan definitions) New Subplan Subplan Change Subplan Deletion

7. For Plan Changes, place the existing catalog text in this column. Please copy and paste the text directly from the **current** on line academic catalog: (<http://www4.nau.edu/ain/AcademicCatalog/academiccatalogs.htm>)
Be sure you include all catalog text that pertains to this plan change

For New Plans, leave this column blank.

MINOR MATHEMATICS SECONDARY EDUCATION

To complete this minor, you take the following 20 units:

- MAT 136, 137, and 320W (11 units)
- three of MAT 226, 301, 365, 401, and 402 plus STA 270 (9 units)

Please note that you must have a grade of C or better in each mathematics or statistics course that you use to fulfill the requirements of this minor.

- Show the proposed changes in this column. Please **BOLD** the changes, to differentiate from what is not changing.
(Describe the changed requirements under headings that match those used in the left column. Please be aware that if the units are not totaled correctly, the catalog editor will adjust them accordingly.)

MINOR MATHEMATICS SECONDARY EDUCATION

To complete this minor, you take the following 20 units:

- MAT 136, 137, and 320W (11 units)
- three of MAT 226, 301, 365, 401, and 402 plus STA 270 **or STA 275** (9 units)

Please note that you must have a grade of C or better in each mathematics or statistics course that you use to fulfill the requirements of this minor.

8. For undergraduate plans, will this requirement be a student individualized plan*? no yes

*A *Student Individualized Plan* is an academic requirement that varies by student, such as the 15-unit BAiLS focus, for which coursework requirements are established by the student in consultation with the advisor.

If yes, the academic unit listed at the top of this form hereby takes responsibility for providing complete information about each student's individual requirements for the degree audit system.

9. For undergraduate plans, will a milestone** be used to:
- a. verify satisfactory completion of a non course requirement.
 - b. indicate admission to a major.
 - c. will not be used.

**A *Milestone* is used to record noncourse requirements, such as the HRM 800-hour work experience requirement or admission to Business Major status.
If yes, the academic unit listed at the top of this form hereby takes responsibility for maintaining the milestone and keeping individual student records up to date.

10. Please list the Learning Outcomes of the Plan/Subplan (see degree major assessment webpage - <http://www4.nau.edu/assessment/main/degree/degree.htm>).

N/A (Minor)

11. Justification for proposal. Please indicate how past assessments of student learning prompted proposed changes.

Proposals for the new course STA 275 is pending. STA 275 is similar to STA 270 but with a more theoretical base and, if approved, credit will not be allowed for both STA 270 and STA 275. The change here allows either course to count for the minor.

12. If this academic plan/subplan will require additional faculty, space, or equipment, how will these requirements be satisfied?

--

13. Will this academic plan/subplan affect other majors, liberal studies course offerings, plans/subplans, curricula, or enrollment at NAU? **No**

If so, attach supporting documentation from the affected departments/units and college dean.

--

14. Will present library holdings support this academic plan/subplan?

Yes

Certifications

Janet M. McShane 20 Nov 2006
 Department Chair/ Unit Head (if appropriate) Date

Wynne A. Kridelbroelt 12-07-2006
 Chair of college curriculum committee Date

J. Schuenneke 7 Dec 06
 Dean of college Date

For committee use only

[Signature] 1/16/07
 For University Curriculum Committee Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to the college dean, department chair, and Academic Information Office after approval.

UNIVERSITY CURRICULUM COMMITTEE

PROPOSAL FOR NEW ACADEMIC PLAN, PLAN CHANGE, OR PLAN DELETION

1. College Engineering and Natural Sciences
2. Academic Unit Mathematics and Statistics
3. Academic Plan Name Minor in Statistics
4. Subplan (if applicable)? -
5. Effective Date FALL 2007
6. Is this proposal for a : New Plan Plan Change Plan Deletion
(Please refer to Plan and Subplan definitions) New Subplan Subplan Change Subplan Deletion

7. For Plan Changes, place the existing catalog text in this column. Please copy and paste the text directly from the **current** on line academic catalog: (<http://www4.nyu.edu/ain/AcademicCatalog/academiccatalogs.htm>)
Be sure you include all catalog text that pertains to this plan change

For New Plans, leave this column blank.

MINOR STATISTICS

To complete this minor, you take the following 18 units:

- STA 270, 371, 471, and 472 (12 units)
- two of STA 473C, 474C, 570, 571, 572, 574, and 575 plus MAT 368 and 467 (6 units)

Please note that you must have a grade of C or better in each mathematics or statistics course that you use to fulfill the requirements of this minor.

Show the proposed changes in this column. Please **BOLD** the changes, to differentiate from what is not changing.
(Describe the changed requirements under headings that match those used in the left column. Please be aware that if the units are not totaled correctly, the catalog editor will adjust them accordingly.)

MINOR STATISTICS

To complete this minor, you take the following 18 units:

- STA 270 **or 275**, 371, 471, and 472 (12 units)
- two of STA 473C, 474C, **477**, 570, 571, 572, 574, and 575 plus MAT 368 and 467 (6 units)

Please note that you must have a grade of C or better in each mathematics or statistics course that you use to fulfill the requirements of this minor.

8. For undergraduate plans, will this requirement be a student individualized plan*? no yes

*A Student Individualized Plan is an academic requirement that varies by student, such as the 15-unit BAiLS focus, for which coursework requirements are established by the student in consultation with the advisor.

If yes, the academic unit listed at the top of this form hereby takes responsibility for providing complete information about each student's individual requirements for the degree audit system.

9. For undergraduate plans, will a milestone** be used to:
- a. verify satisfactory completion of a non course requirement.
 - b. indicate admission to a major.
 - c. will not be used.

**A Milestone is used to record noncourse requirements, such as the HRM 800-hour work experience requirement or admission to Business Major status.

If yes, the academic unit listed at the top of this form hereby takes responsibility for maintaining the milestone and keeping individual student records up to date.

10. Please list the Learning Outcomes of the Plan/Subplan (see degree major assessment webpage - <http://www4.nau.edu/assessment/main/degree/degree.htm>).

N/A (Minor)

11. Justification for proposal. Please indicate how past assessments of student learning prompted proposed changes.

Proposals for the new courses STA 275 and STA 477 are pending. STA 275 is similar to STA 270 but with a more theoretical base and, if approved, credit will not be allowed for both STA 270 and STA 275. The change here allows either course to count for the minor and adds the other new course STA 477 to the list of optional courses.

12. If this academic plan/subplan will require additional faculty, space, or equipment, how will these requirements be satisfied?

--

13. Will this academic plan/subplan affect other majors, liberal studies course offerings, plans/subplans, curricula, or enrollment at NAU? **No**

If so, attach supporting documentation from the affected departments/units and college dean.

--

14. Will present library holdings support this academic plan/subplan?

Yes

Certifications

Garet M. McShane 20 Nov 2006
Department Chair/ Unit Head (if appropriate) Date

Wayne A. Riddelmelt Dec-07-2006
Chair of college curriculum committee Date

J. J. Huennicke 7 Dec 06
Dean of college Date

For committee use only

Ron B. [Signature] 1/16/07
For University Curriculum Committee Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to the college dean, department chair, and Academic Information Office after approval.

9. For undergraduate plans, will a milestone** be used to:
- a. verify satisfactory completion of a non course requirement.
 - b. indicate admission to a major.
 - c. will not be used.

A *Milestone* is used to record noncourse requirements, such as the HRM 800-hour work experience requirement or admission to Business Major status. If **yes, the academic unit listed at the top of this form hereby takes responsibility for maintaining the milestone and keeping individual student records up to date.

10. Please list the Learning Outcomes of the Plan/Subplan (see degree major assessment webpage - <http://www4.nau.edu/assessment/main/degree/degree.htm>).

N/A (Minor)

11. Justification for proposal. Please indicate how past assessments of student learning prompted proposed changes.

The change in hours follows a change from 3 hours to 4 hours for MAT 238 and keeps the number of *courses* in the minor as originally intended. MAT 335: Complex Variables should be an attractive choice for students majoring in physics and some engineering programs; its inclusion in the "one of MAT 226, 320W, or 365" category is justified as by its theoretical base. A proposal for STA 275 is pending; if approved, credit will not be allowed for both STA 270 and STA 275. The statement here in the minor is simply to clarify this

12. If this academic plan/subplan will require additional faculty, space, or equipment, how will these requirements be satisfied?

--

13. Will this academic plan/subplan affect other majors, liberal studies course offerings, plans/subplans, curricula, or enrollment at NAU? **No**

If so, attach supporting documentation from the affected departments/units and college dean.

--

14. Will present library holdings support this academic plan/subplan?

Yes

Certifications

Janet M. McShane 20 Nov 2006
 Department Chair/ Unit Head (if appropriate) Date

Acquiesce A. Hildebrandt 07-Dec-2006
 Chair of college curriculum committee Date

L. J. Huenneke 7 Dec 06
 Dean of college Date

For committee use only

Bon Giff 11/16/07
 For University Curriculum Committee Date

Action taken: approved as submitted approved as modified

Note: Submit original to associate provost's office. That office will provide copies to the college dean, department chair, and Academic Information Office after approval.

UNIVERSITY CURRICULUM COMMITTEE

2006-07

MEETING SIGN IN SHEET

DATE: January 16, 2007

NAME	SIGNATURE
ALLEN, JIM	<i>Jim Allen</i>
GLASS, MERTON	<i>Mert Glass</i>
HAGOOD, JOHN	<i>John Hagood</i>
HAMMERSLEY, CHARLES	
HARDY-SHORT, DAYLE	<i>Dayle HS</i>
HILL, EMILY	<i>Emily Hill</i>
KOERNER, DAVID	<i>David Koerner</i>
KOZAK, KATHRYN (CCC)	<i>Kathryn Kozak</i>
LEE, CHUNHYE	<i>Chunhye Lee</i>
LI, DAN	<i>Dan Li</i>
MARIS, BRIAN	<i>Brian Maris</i>
MEDINA, CATHERINE	<i>Catherine Medina</i>
NORGARD, ERIC (ASNAU)	<i>Eric Norgard</i>
POLLAK, PEGGY	<i>Peggy Pollak</i>
RAYMOND, DEBORAH	<i>Deborah Raymond</i>
RIEMER, FRANCES	
RUWE, DONELLE	<i>Donelle Ruwe</i>
TALLMAN, GARY	<i>Gary Tallman</i>
URDANG, BRUCE	<i>Bruce Urdang</i>
WILLIS, BECKY	<i>Becky Willis</i>

EX OFFICIO	SIGNATURE
BRADFORD, ERIC	
DEEGAN, PATRICK	<i>Patrick Deegan</i>
HEINRICHS, JANET	<i>Janet Heinrichs</i>
MAHONEY, EILEEN	<i>Eileen Mahoney</i>
MARTIN, DARRELLE	<i>Darrelle Martin</i>
PITT, RON	<i>Ron Pitt</i>
RENSINK, PATRICIA	
WILLIAMS, LISA	<i>Lisa Williams</i>
GUESTS	SIGNATURE
<i>Moate</i>	<i>Tessie Moate</i>
<i>Deanne Johnson</i>	<i>Deanne Johnson</i>
<i>John</i>	<i>John</i>

Patrick Deegan
Janet Heinrichs
Eileen Mahoney
Darrelle Martin
Ron Pitt
Lisa Williams

Moate
Deanne Johnson → *oogs!*
John

UNIVERSITY CURRICULUM COMMITTEE
January 16, 2007
3:00 p.m. – University Union, Havasupai A/B

Agenda

OLD BUSINESS

I. MINUTES OF THE November 28, 2006 MEETING *approved*

NEW BUSINESS

I. CONSENT ITEMS *approved*

A. COLLEGE OF SOCIAL AND BEHAVIORAL SCIENCES

- | | |
|--|---|
| 1. EMF 251 – Electronic Media Staff Workshop 1 | Course Change – grading option, requisites, description |
| 2. EMF 252 – Electronic Media Mgmt Workshop 2 | Course Change- grading option, requisites |
| 3. JLS 208 – Fieldwork Experience | Course Change – credits |
| 4. JLS 230 – Humor Writing | Course Change – offering status |
| 5. POS 159 – Nature and Politics | Course Deletion |
| 6. POS 428 – Topics in Public Administration | Course Change – prerequisite |
| 7. VC 329 – Typographics | Course Change – prerequisite |
| 8. VC 333 – Graphic Design | Course Change - prerequisite |

B. CONSORTIUM OF PROFESSIONAL SCHOOLS

- | | |
|---------------------------|-------------------------------|
| 1. HS 305W, 307, 333, 490 | Course Change – prerequisites |
|---------------------------|-------------------------------|

C. Diversity -

FOR 270 for US Ethnic Diversity- ~~Fall '06~~ *Spring 07*

D. COLLEGE OF ENGINEERING AND NATURAL SCIENCES

- | | |
|---|---|
| 1. EGR 286 – Engineering Design: The Process | Course Change – description, requisites |
| 2. CENE 180 – Computer Aided Drafting | Course Change - description |
| 3. CENE 251 – Applied Mechanics Statics | Course Change - description, requisites |
| 4. CENE 270 – Plane Surveying | Course Change – title, description |
| 5. CENE 280 – Environ. Engineering Fundamentals | Course Change – corequisite |
| 6. CENE 330 – Air Quality Engineering | Course Change – description |
| 7. CENE 332 – Solid and Hazardous Waste Mgmt. | Course Change- description, prerequisite |
| 8. CENE 333 – Applied Hydraulics | Course Change – description, prerequisite |
| 9. CENE 333L – Applied Hydraulics Lab | Course Change – description |
| 10. CENE 376 – Structural Analysis I | Course Change- description |
| 11. CENE 386W –Engineering Design: The Methods | Course Change – description |
| 12. CENE 418 – Highway Engineering | Course Change – description |
| 13. CENE 420 – Traffic Study and Signal | Course Change – description, prerequisite |
| 14. CENE 430 – Air Pollution Controls Design | Course Change - prerequisite |
| 15. CENE 433 – Hydrology and Flood Control | Course Change- description, prerequisite |
| 16. CENE 434 –Water & Waste-Water Units Design | Course Change – description |
| 17. CENE 436 – Structural Steel Design | Course Change – description |
| 18. CENE 437 – Wood Building Design | Course Change – description |
| 19. CENE 438 – Reinforced Concrete Design | Course Change – description |
| 20. CENE 476 – Egr Design Porc Lab | Course Change – title, description |
| 21. CENE 486C – Engineering Design | Course Change – prerequisite |
| 22. STA 473C – Intro to Mathematical Statistics I | Course Change - prerequisite |

II. ACTION ITEMS

A. COLLEGE OF SOCIAL AND BEHAVIORAL SCIENCES

1. Minor in Native American Studies	Plan Change
2. BS Applied Indigenous Studies	Plan Change
3. BA Applied Indigenous Studies	Plan Change
4. BSJED	Plan Deletion
5. PRM 221 – Intro to Orienteering	New Course
6. PRM 222–Search and Rescue Technician II& III	New Course
7. PRM 223 – Intro to Technical Rescue	New Course
8. PRM 224 – Intro to Tracking	New Course
9. PRM 225 – Avalanche Safety Level I	New Course
10. PRM 432 – Intro to Multi-day River Expedition Leadership	New Course

approved
 No/1 tabled
 grading issue
 contact time/credit hr.
 fee?
 ccc offer?

B. COLLEGE OF ENGINEERING AND NATURAL SCIENCES

1. BS Biology	Plan Change
2. BS Exercise Science	Plan Change
3. CENE 150L – Intro to Environ. Engin. Lab	New Course
4. CENE 383L – Geotechnical Engineering 1 Lab	New Course
5. CENE 383 – Soil Mechanics and Foundations	Course Change – title, description, corequisite
6. CENE 457 – Masonry Design	New Course
7. STA 275 – Statistical Analysis	New Course
8. STA 477 – Time Series Analysis	New Course
9. STA 270 – Applied Statistics	Course Change – description
10. STA 371 – Intermediate Statistics	Course Change – prerequisite
11. STA 471 – Regression Analysis	Course Change- prerequisite
12. STA 472 – Nonparametric Statistics	Course Change- prerequisite
13. BSEd Mathematics Secondary	Plan Change
14. BS Mathematics Extended	Plan Change
15. Minor in Mathematics, Secondary Education	Plan Change
16. Minor in Statistics	Plan Change
17. Minor in Mathematics	Plan Change

for missing

approved = No/1 abstain
 = no abstain.
 approved
 approved
 approved

III. DISCUSSION

A. Curriculum Review of University Course Lines

Chair of or Chair designate ^{who} to represent curricular materials at the UCC mtg. effectively immediately.

is not on UCC

13/1/0