UCCC AGENDA for October 8, 2014

Meeting 12:30-2:30 p.m.

Location: Witherspoon Center Rm 126

Minutes Recorder: Gina Neugebauer **Quorum: 12**

Call to Order

Welcome - Chair, Dr. David Auerbach

Remarks and updates from Dr. Barbara Kirby, Associate Vice Provost, Academic Programs and Services

Consent Agenda

Presenter:	Action:	Type:
n/a	Minutes - September 24th Mtg	n/a
Berube	FLG 301, 302, 307, 311, 315, 318, 320, 323, 325, 390, 430	Rev: pre-reqs
Brothers	FW 353-Wildlife Management	Rev: pre-reqs
Brothers	ET 484-Practice of Renewable Energy Assessments	Rev: pre-reqs
Brothers	GIS 295-Special Topics in Geospatial Information Science	New Course
Despain	HI 438-The Russian Empire to 1917	Drop Course, GEP GK and HUM
Despain	HI 439-History Soviet Union and After	Drop Course, GEP GK and HUM
Koch	MUS 295 - Special Topics in Music	New Course
Koch	MUS 493 - Recital	Rev: Instructional Format; Credit Hour
Koch	MUS 107, 112, 113, 115, 121, 122, 131, 132, 134, 140, 141, 143, 144, 150, 152, 207, 300, 390	Rev: Instructional Format

Major Actions

Presenter:	Reviewers:	Action:	Type:
College of Engineering			
Parish	Ozturk, Currie, Reiskind	Dual Degree with NC Central University (3+2 articulation) NCCU BS Physics/NCSU BS EE	New Dual Degree Agreement
Ozturk	Despain, Nowel, Hergeth	BEC 441/541 Expression Systems in Biomanufacturing	New Course/Dual Level
Parish	Hessling, Hardin, Berube	MSE 423 Introduction to Materials Engineering Design	Rev: Content, Course/Contact Hours, Student Learning Outcomes
Parish	Hessling, Hardin, Berube	Materials Science & Engineering (14MBEBS)	Rev: Various changes
College of Sciences			
Black	Despain, Nowel, Warren	BIO 444 The Biology of Love and Sex	New Course
Division of Academic & Student Affairs			
Koch	Black, Beller, Rieder	SLC 250 Critical and Creative Decision Making Models	New Prefix, Course, GEP-IP
College of Humanities and Social Sciences			
Berube	Ozturk, Currie, Reiskind	COM 342 Qualitative Methods in Communication Research	Rev: Content, Pre/Co-reqs, Catalog Desc., Student Learning Outcomes

DRAFT **DRAFT**

UCCC Minutes 9.24.2014
Room-Witherspoon Center 201
Call to Order: 12:34pm

ATTENDANCE

Members Present (Quorum Present: 18): Chair Auerbach, Alton Banks, Amanda Beller, David Berube, Betty Black, Debbie Currie, Scott Despain, Charles Hardin, Peter Hessling, Tom Koch, Andy Nowel, Hatice Ozturk, David Parish, Martha Reiskind, Farzad Rezaei, Kathleen Rieder, Rebecca Swanson, Robert Warren

Ex-Officio Members Present: Charles Clift, Catherine Freeman, Barbara Kirby, Brittany Mastrangelo

Recurring Guests Present: John Harrington

Members Absent: Gene Brothers (E), Michael Helms (E), Helmut Hergeth

Guests: Nancy Allbritton (*Chair,UNC/NCSU Joint Dept Biomedical Engineering*), Larry Blanton (*Director, University Honors Program*), Jerome Lavelle (*Assoc. Dean, College of Engineering*) , Aaron Stoller (*University Honors Program*), Carolyn Veale (*University Honors Program*)

WELCOME and INTRODUCTIONS

Remarks from Chair, David Auerbach:
Chair Auberach welcomed the committee to the second meeting of the academic year. He welcomed the guests in attendance.
Remarks from Associate Vice Provost Academic Programs, Barbara Kirby:
Dr. Kirby welcomed the committee to the meeting, and noted that she had no updates to provide.

CONSENT AGENDA

- A motion was made and seconded to approve the consent agenda. One member requested that the *Minutes from August 27, 2014 Meeting* be pulled out for further review. Without further discussion, the remaining actions in the motion were **APPROVED** unanimously.

Action	Type
Minutes from August 27, 2014 Meeting	
ANS/FS/NTR 301 *Introduction to Human Nutrition*	Rev: Remove ANS prefix from crosslisting
ANS/NTR 419 *Human Nutrition and Chronic Disease*	Rev: Remove ANS prefix from crosslisting
HS 305 *Interior Plantscapes*	Rev: Drop Course
HS 203 *Home Plant Propagation*	Rev: Scheduling Changes
HS 204 *Home Landscape Maintenance*	Rev: Scheduling Changes
HS 250 *Home Landscape Design: Creating Garden Spaces*	Rev: Scheduling Changes
HS 302 *Gardening with Herbaceous Perennials*	Rev: Scheduling Changes
HS 357 *Site Design and Construction Materials*	Rev: Scheduling Changes
HS 400 *Residential Landscaping*	Rev: Scheduling Changes
HS 416 *Planting Design*	Rev: Scheduling Changes
HS 421 *Temperate-Zone Tree Fruits: Physiology and Culture*	Rev: Scheduling Changes
HS 422 *Small Fruit Production*	Rev: Scheduling Changes
HS 451 *Plant Nutrition*	Rev: Scheduling Changes
PB 321 *Introduction to Whole Plant Physiology*	Rev: Change in Pre-reqs
Agricultural Education-*Horticultural Science* (11AGEDBS-11AGEDHS)	Rev: Add HS 215 to Genetics Requirement

- Minutes from August 27, 2014 Meeting-APPROVED unanimously pending revision to error.
  Discussion: An additional 'not' was present on the 2nd page of the minutes under the Accounting, Business

Administration, & Economics Curricula. Without any additional discussion, the minutes were approved unanimously pending revision.

NEW BUSINESS

- Biomedical and Health Science Engineering BS- **APPROVED** unanimously without discussion.

- ANS 240/ANS 240A Livestock Merchandising-**APPROVED** unanimously.
  Discussion: One member asked how an additional three hours would affect the resource statement. The presenter explained that the instructor is taking the additional time as part of the course load; it is formalizing what they instructor has already been doing. Another member asked if the '*A*' suffix was allowed in Mypack. Dr. Kirby explained that the '*A*' indicates the Agricultural Institute. Students in the Agricultural Institute have to receive special permission to take the course without the '*A*' suffix. Without any further discussion, the action was **APPROVED** unanimously.

- PB 345 Economic Botany-**APPROVED** unanimously pending revision.
  Discussion: The presenter explained to the committee that this course represents part of a departmental initiative to expand the plant biology focus in the department. One member asked for clarification on the term 'modern era'; it might be helpful for students to understand what 'modern' is defined as. Additionally he noted that the enrollment was listed as fourteen for Spring, and he wondered how this would translate into two course sections. The presenter explained that the course would be open to non-plant biology majors, but would be considered an elective for those in the Plant Biology curriculum. One member noted that the research presentations are supposed to be ten minutes each. He wondered how this would be utilized, since with a seventy five minutes class period, this would take three to four days, rather than the scheduled two days. He asked the presenter how much of the course would truly lecture, and wondered if a substantial time of the course would be lecture. The presenter explained that the presentations are integrated into the lecture. She explained that she could talk to the instructor about reducing the presentation time to five minutes to address this or can be done as group presentations. The member noted that then the student would be graded on five minutes for twenty percent of their grade. Chair Auerbach noted that courses change enrollment without bringing it forth to UCCC. Catherine Freeman noted that she did not think the presentation schedule would be in violation of any instructional formats currently used at NCSU. Another member noted that there has to be some trust involved believes that it is not the committee's job to enforce, but rather that is a task for department heads. A friendly suggestion to the instructor that if the course enrollment increases, that the presentation time will need to be reassessed. Additionally, she noted that the instructor could make the presentations group based rather than individual, which could be a viable solution. Another member noted that as a friendly suggestion, that other students outside of Plant Biology might be interested in taking the course. She suggested talking to the Horticulture and Biology departments. A member noted that there could be an issue with the *Late Assignments Policy*, which tells students they must bring forth a credible source of information to explain their absence. Catherine Freeman noted that students do not need to have a detailed explanation from a doctor noting why they missed a class so the statement should be modified. Without any additional discussion, the action was **APPROVED** unanimously pending revisions to: *Late Assignment Policy*.

- HS 280 Hands-On Horticulture-**APPROVED** unanimously pending revisions.
  Discussion: One member noted that an abbreviated title had not been provided on the *Course Action Form*. Another member asked for clarification on the transportation statement as it states that it is a student's responsibility but then later the syllabus states that the College will transport students to the field. Chair Auerbach noted that field trips may be different then the Horticulture Science laboratory. A different member noted that there seemed to be an expense for shovels and boots. If it is an extra expense, this needs to be included in the catalog description. Another member asked if the textbook was truly optional to succeed in the course. If test is required, information needs to be provided. One member noted that there were typos in the Course Justification and the Academic Integrity sections. Without any further discussion, the action was **APPROVED** unanimously pending revisions to: material costs for tools and equipment, information on the abbreviated title, more information on the textbooks and online materials needed for quizzes and certification, and clarification on the transportation statement.

- HS 171 Landscape Construction- **APPROVED** unanimously pending revisions.
  Discussion: One member noted that the textbook listed for HS 171 was the same listed as optional for HS 280, but is

required for the course. Another member asked if the grading scale as provided was correct. Without any additional discussion the action was **APPROVED** unanimously pending revisions to: material costs for tools and equipment and clarification on the transportation statement.

- Plant Biology Minor (11PBM)- **APPROVED** unanimously without discussion.

- Agricultural Education-*Poultry Science* (11AGEDBS-11AGEDPSC)-**APPROVED** unanimously.
  Discussion: One member asked if the course being dropped was the one semester of Organic Chemistry. The presenter explained that the curriculum will still keep an upper level course of Organic Chemistry. Without any further discussion, the action was **APPROVED** unanimously.

- HESM 476 Motor Learning and Sport Performance-**APPROVED** unanimously.
  Discussion: One member asked if the course was going to be taught DE. The presenter explained that the course would not be taught DE, but rather on campus only. Without any additional discussion, the action was **APPROVED** unanimously.

- Coaching Education Minor (24CAM)- **APPROVED** unanimously without discussion.

- HON 300 Race, Society, and Eugenics-**APPROVED** unanimously pending revision.
  Discussion: One member asked the presenter why the action was marked 'other' for scheduling. Larry Blanton, from the University Honors Program, explained that it is marked 'other' to explain that the course will not follow a traditional scheduling pattern. Another member gave his advice to the instructor that he understood why she chose *Bell Curve: Intelligence and Class Structure in American Life*[1], but asked if she should bring materials reflecting Art Literature. As a friendly suggestion, he noted that she should maybe consider another text. He noted that it looked like a good course. Another member asked how the student learning objectives of 'analyze' and 'evaluate' could be measured. The instructor explained that students are involved in intense discussions and write weekly reflections. Another member noted that there were other groups that were targeted for eugenics, such as Irish and Italians. He noted that Margaret Sanger is not included. The instructor explained that right now non-white faculty have conversations about race with the students, and they are focusing on Native American, Latino, and African American faculty. The member felt that not including other groups would be academically dishonest. A member from CHASS asked why a consult was not requested from CHASS for certain departments. The Chair as representing his department did not have any objections to the course. Larry Blanton explained that there has been a bit of a mixed message with consults as he thought it was a duplication issue. University Honors did not see any duplication of courses. Aaron Stoller, from the University Honors Program, noted that they would request consults. Chair Auerbach noted that he was unsure about the last book[2] as it is 'smoke and mirrors'. The instructor noted that it does dispute the other reading, and students have noted that they do get tired of reading it. Without any further discussion, the action was **APPROVED** unanimously pending revision to: consult with CHASS.

- HON 311 Words Through Space and Time-**APPROVED** unanimously.
  Discussion: One member asked how the course was reviewed by the Sociology & Anthropology department, and if University Honors has heard from them. Larry Blanton explained that the consultation was promised by Friday, but a consult had not been provided by the start of UCCC. One member made the suggestion to clarify the grading distribution for an assignment, but noted that the cumulative assignment was neat. A member noted that the *Policy on Incomplete Assignments* had a typo. A different member asked what is the criteria for denying students who are not in the Honors program for a GEP course. Larry Blanton explained that CUE has considered this when looking over Honors Special Topics courses and previous Honors courses. They have determined that the twenty five percent is in the spirit of restricting students to their own major. Students in the University Honors program come from several majors, and Honors courses have not been previously been held to that standard. Additionally, other students can enroll in the course if they meet the GPA requirements and are approved by the University Honors program. Without any additional discussion, the action was **APPROVED** unanimously

[1] Richard J. Herrnstein and Charles Murray; 1st edition

[2] *Race and Membership in American History: The Eugenics Movement-Facing History and Ourselves*

- HON 352 Self, Schooling, and the Social Order-**APPROVED** unanimously.
  Discussion: One member noted that the catalog description appears reflective of the course description, not the catalog description. Aaron Stoller noted that he would be happy to make a change to make the catalog description more general. The member also noted that the phrase 'Social Order' is prescriptive. She asked if this could be changed to add critical inquiry to the title or something to indicate that it is explorative not prescriptive. Aaron Stoller agreed. Without any further discussion, the action was **APPROVED** unanimously.

- HON 353 Code Breakers: Unlocking the Mysteries of One Human Language: **APPROVED** unanimously without discussion.

ANNOUNCEMENTS and DISCUSSION

Chair Elect Nominations
Chair Auerbach asked the committee for chair elect nominations as no one had self-elected yet. A suggestion was made for Scott Despain to be nominated as chair elect. Scott Despain agreed. A motion to close the nominations was made and seconded. By acclimation, a motion was made to elect Scott Despain as chair-elect. The committee approved the motion unanimously without discussion.

UCCC Subcommittee Information
Chair Auerbach to email him or Catherine Freeman if member are interested in participating in an UCCC Attendance Policy Subcommittee.

Meeting adjourned at 1:51pm.

Respectfully submitted by Gina Neugebauer

MEMORANDUM

5441

TO: UCCC

FROM: Helga G. Braunbeck, German Section Coordinator, FLL

DATE: August 26, 2014

SUBJECT: Updating prerequisites for FLG 301, 302, 307, 311, 315, 318, 320, 323, 325, 390, 430

Action required: Increase and update options for fulfilling prerequisites for upper level FLG courses.

1. FLG 300 level courses

Current: FLG 202 is the only prerequisite for FLG 301, 302, 307, 311, 315, 318, 320, 323, 325, 390.

Proposed: **FLG 202 or FLG 212** will be the prerequisite for FLG 301, 302, 307, 311, 315, 318, 320, 323, 325, 390.

Justification: FLG 202 used to be the only course at the level of 4th semester language skills. Now that the level of FLG 212 has been moved to also be at the level of 4th semester language skills, it can be an alternative prerequisite for our 300 level courses.

2. FLG 430

Current: Prerequisite: One FLG 300-level course and one from this list: FLG 300, 315, 316, 318, 323, 390.

Proposed: Prerequisite: One FLG 300-level course and one from this list: FLG 315, 318, 320, 323, 325, 390.

Justification: Our 300-level course numbers were changed. Therefore this list needs to be updated to reflect our current course numbers.

SIGNATURE PAGE

COURSE ACTION FOR FLG 301, 302, 307, 311, 315, 318, 320, 323, 325, 390, 430

RECOMMENDED BY:

[signature] 9.8.14 Associate Head (phone).

HEAD, DEPARTMENT/PROGRAM — DATE

ENDORSED BY:

[signature] 9/22/14

CHAIR, COLLEGE COURSES & CURRICULA COMMITTEE — DATE

Victoria J. Gallagher 9/24/14

COLLEGE DEAN — DATE

APPROVED BY:

CHAIR, UNIVERSITY COURSES & CURRICULA COMMITTEE — DATE

CHAIR, COUNCIL ON UNDERGRADUATE EDUCATION — DATE

DEAN, DIVISION OF ACADEMIC AND STUDENT AFFAIRS (DASA) — DATE

APPROVED EFFECTIVE DATE _____

North Carolina State University is a land-grant university and a constituent institution of the University of North Carolina

Department of Forestry and Environmental Resources

NC STATE UNIVERSITY

DEPARTMENT of FORESTRY and ENVIRONMENTAL RESOURCES
NC STATE UNIVERSITY

College of Natural Resources
Campus Box 8008
Raleigh, NC 27695-8008

919.515.2891
919.515.6193 (fax)

September 12, 2014

From: Dr. Lara Pacifici, Undergraduate Coordinator
Fisheries, Wildlife, and Conservation Biology Program
Department of Forestry and Environmental Resources

To: University Courses and Curricula Committee

Re: Proposal to revise prerequisites for Wildlife Management (FW 353)

With support from the College of Natural Resources Office of Academic Affairs, we request a change in the pre-requisite courses for FW 353 Wildlife Management.

Proposed Pre-requisite: Sophomore standing or higher

Current Pre-requisite: BIO 181

Justification:

The current pre-requisite prevents some transfer students from enrolling in the course because they come in with credit for a different biology course. Our proposed revision of the pre-requisite will allow access to students who are equipped to enter the Wildlife Management course.

Proposed implementation date: Spring 2015

Impact on Students:

More students will have access to FW 353, which is a required course for Fisheries, Wildlife, and Conservation Biology students.

Consultation: No consultation needed because FW 353 is the only course affected.

Budget: No new resources are needed.

Current CIP: 030101
Fisheries, Wildlife, and Conservation Biology

Approval Signatures:

Chair of the CNR Academic Affairs Committee — Date: Sept. 19 '2014

Dean of the College of Natural Resources — Date: 9/19/2014

Chair, University Courses & Curricula Committee — Date

Dean, Undergraduate Academic Program — Date

North Carolina State University is a land-grant university and a constituent institution of the University of North Carolina

Department of Forestry and Environmental Resources

NC STATE UNIVERSITY

DEPARTMENT of FORESTRY and ENVIRONMENTAL RESOURCES
NC STATE UNIVERSITY

College of Natural Resources
Campus Box 8008
Raleigh, NC 27695-8008

919.515.2891
919.515.6193 (fax)

September 9, 2014

From: Dr. Elizabeth Nichols and Terrie Litzenberger
Environmental Technology and Management Program
Department of Forestry and Environmental Resources

To: University Courses and Curricula Committee

Re: Proposal to revise prerequisites and times for Practice of Renewable Energy Assessments (ET484)

With support from the College of Natural Resources Office of Academic Affairs, we request a change in the pre-requisite courses for ET 484 – Practice of Renewable Energy Assessments.

Proposed Pre-requisites: ET 220 and one of either ET 240, ET 255, or ET 262. For renewable energy assessment minors only.

Current Pre-requisites: ET 220, ET 240, and ET 255

Justification:
The prerequisite change for ET 484 reflects the altered sequence of courses due to instructor availability. Part of this course involves actual installment of a solar PV so students need to have taken ET 220 Solar PV Assessment.

Proposed implementation date: Spring 2015

Impact on Students:
Students will be prepared for ET 484 and able to take the course given the change in other ET courses for the renewable energy minor.

Consultation: No consultation needed because the only courses affected are in the ET program.

Budget: No new resources are needed.

Current CIP: 15.0507
Environmental Technology and Management Program

Approval Signatures:

Candace Kidd
Chair of the CNR Academic Affairs Committee

Sept. 19 2014
Date

A. G. Kirkman
Dean of the College of Natural Resources

9/19/2014
Date

Chair, University Courses & Curricula Committee

Date

Dean, Undergraduate Academic Program

Date

N.C. STATE UNIVERSITY
UNDERGRADUATE COURSE ACTION FORM
Effective September 2008

NOTE: Click shaded fields to type data and click on boxes to check.

Department/Program	Center for Geospatial Analytics/GIST
Course Prefix/Number	GIS 295
Previous Prefix/Number	TYPE PREVIOUS COURSE/SPECIAL TOPIC PREFIX NUMBER HERE
Course Title	Special Topics in Geospatial Information Science
Abbreviated Title	Special Topics in GIS
Scheduling	Fall ☒ Spring ☒ Summer ☒ Every Year ☒ Alt. Year Odd ☐ Alt. Year Even ☐ Other ☐
Course Delivery Check all that apply	On Campus ☒ Distance Education ☒ Online ☒ Remote Location ☐
Course Credit/Grading	**Credit Hours** 1-4 — **Grading** ABCDF ☒ S/U ☐
Contact Hours ***See contact/credit hour guidelines for detail.***	Lecture 1-4 Seminar Laboratory Problem Studio Independent Study Research Internship Practicum Field Work
Is course repeatable for credit?	Y — # Repeats allowed 3
Instructor(s) (Name/Rank)	Dr. Eric Money/Assistant Teaching Professor Dual Appointment? ☐

Anticipated Enrollment	Per semester 40 Per section 40 Will multiple sections be offered? Yes ☒ No ☐
Prerequisite(s) Course(s) to be completed prior to enrolling	None Enforce pre-requisite checking? Yes or No
Co-requisite(s) Course(s) to be taken concurrently with this course	None Enforce co-requisite checking? Yes or No
Pre/Co-requisite for…	N/A
Restrictive Statement (ex: MA and AMA majors only)	TYPE BRIEF STATEMENT HERE AND INCLUDE STATEMENT IN CATALOG DESCRIPTION BELOW
Course is required for:	LIST DEGREE KEY FOR ALL CURRICULA OR IDENTIFY MINOR IN WHICH COURSE IS OR WILL BE REQUIRED
Course is an elective for:	LIST DEGREE KEY FOR ALL CURRICULA OR IDENTIFY MINOR IN WHICH COURSE SERVES OR WILL SERVE AS AN ELECTIVE
Proposed Effective Date 1/2015	Approved Effective Date — Course Review Due

Catalog Description: (Include any Restrictive, Transportation, or Fee Statements) (100 word limit)
Special Topics in Geospatial Information Science at the 200 level for offering courses on an experimental basis.

Type of Proposal

New Course	☒
Drop Course	☐
Revise Course	☐
Revision in:	
Content	☐
Prefix/Number	☐
Title	☐
Abbreviated Title	☐
Credit Hours	☐
Contact Hours	☐
Grading Method	☐
Scheduling	☐
Pre/Co-requisites	☐
Restrictive Statement	☐
Catalog Description	☐
Learning Outcomes	☐
GEP Learning Outcomes Only	☐
Dual-Level Course	☐
GEP Course	☐
Check applicable category below:	
Humanities	☐
Social Sciences	☐
Mathematical Sciences	☐
Natural Sciences	☐
Interdisciplinary Perspectives	☐
Visual & Performing Arts	☐
PE/Healthy Living	☐
Global Knowledge Co-req	☐
U.S. Diversity Co-req	☐
Thematic Track	☐

Documentation as Required

(check all that apply)

Course Justification	☒
Proposed Revision(s) with Reasons	☐
Enrollment Last 5 Years	☐
New Resources Statement	☐
Consultation with Department(s) provided	☐
Syllabus (Old and New)	☐
GEP Category Objectives	☐
GEP Student Learning Outcomes	☐
Means of Assessing GEP Outcomes	☐

Signature Page Attached

For Course Action Form Instructions see
http://www.ncsu.edu/uap/academic-standards/courses/crsinst.html

SIGNATURE PAGE

COURSE ACTION FOR GIS 295

RECOMMENDED BY:

Sept 3, 2014

HEAD, DEPARTMENT/PROGRAM — DATE

ENDORSED BY:

Sept 19, 2014

CHAIR, COLLEGE COURSES & CURRICULA COMMITTEE — DATE

9/19/2014

COLLEGE DEAN — DATE

APPROVED BY:

CHAIR, UNIVERSITY COURSES & CURRICULA COMMITTEE — DATE

CHAIR, COUNCIL ON UNDERGRADUATE EDUCATION — DATE

DEAN, DIVISION OF ACADEMIC AND STUDENT AFFAIRS (DASA) — DATE

APPROVED EFFECTIVE DATE _____

JUSTIFICATION

THE GEOSPATIAL INFORMATION SCIENCE & TECHNOLOGY (GIST) PROGRAM WOULD LIKE TO CREATE A SHELL NUMBER AT THE 200 LEVEL TO EXPAND OUR UNDERGRADUATE GIS OFFERINGS AND TEST NEW COURSES AT THIS LEVEL. THIS WILL ALLOW US TO OFFER COURSES TO AN UNDERGRADUATE POPULATION THAT OUR PROGRAM HAS NOT REACHED BEFORE. THERE IS A LARGE DEMAND FOR GIS COURSES AT THIS LEVEL AND THE SPECIAL TOPICS SHELL COURSE WILL ALLOW US TO BEGIN OFFERING THESE COURSES AND TESTING THEM FOR POSSIBLE PERMANENT ADDITIONS TO THE CURRICULUM.

GRADING

GRADING WILL BE BASED ON PROJECTS, EXAMS, QUIZZES, CLASS PARTICIPATION, AND WRITTEN ASSIGNMENTS AS APPROPRIATE FOR EACH COURSE.

RESOURCES

THIS COURSE WILL NOT REQUIRE ANY NEW RESOURCES.

N.C. STATE UNIVERSITY
UNDERGRADUATE COURSE ACTION FORM
Effective September 2008

NOTE: Click shaded fields to type data and click on boxes to check.

5444

DEPARTMENT/PROGRAM	HISTORY
COURSE PREFIX/NUMBER	HI 438
PREVIOUS PREFIX/NUMBER	
COURSE TITLE	THE RUSSIAN EMPIRE TO 1917
ABBREVIATED TITLE	RUS EMPIRE TO 1917
SCHEDULING	Fall ☐ Spring ☒ Summer ☐ Every Year ☐ Alt. Year Odd ☐ Alt. Year Even ☒ Other ☐
COURSE DELIVERY CHECK ALL THAT APPLY	ON CAMPUS ☒ DISTANCE EDUCATION ☐ ONLINE ☐ REMOTE LOCATION ☐
COURSE CREDIT/GRADING	CREDIT HOURS 3 | GRADING ABCDF ☒ S/U ☐
CONTACT HOURS *See contact/credit hour guidelines for detail.*	LECTURE 3 SEMINAR LABORATORY PROBLEM STUDIO INDEPENDENT STUDY RESEARCH INTERNSHIP PRACTICUM FIELD WORK
IS COURSE REPEATABLE FOR CREDIT?	# REPEATS ALLOWED NO
INSTRUCTOR(S) (NAME/RANK)	GERALD SURH, ASSOCIATE PROFESSOR DUAL APPOINTMENT? ☐

ANTICIPATED ENROLLMENT	Per semester 30 Per section 30 Will multiple sections be offered? Yes ☐ No ☒
PREREQUISITE(S)	3 HOURS OF HISTORY
COURSE(S) TO BE COMPLETED PRIOR TO ENROLLING	ENFORCE PRE-REQUISITE CHECKING? YES
CO-REQUISITE(S)	
COURSE(S) TO BE TAKEN CONCURRENTLY WITH THIS COURSE	ENFORCE CO-REQUISITE CHECKING?
PRE/CO-REQUISITE FOR...	
RESTRICTIVE STATEMENT (EX: MA AND AMA MAJORS ONLY)	
COURSE IS REQUIRED FOR:	
COURSE IS AN ELECTIVE FOR:	16HISTBA, 16HISTBS, 16HISTTED, 16HIM, 16RUM, 16ISM, 16INTSTBA-16INTSTEUR
PROPOSED EFFECTIVE DATE 8/14	APPROVED EFFECTIVE DATE | COURSE REVIEW DUE

CATALOG DESCRIPTION: (INCLUDE ANY RESTRICTIVE, TRANSPORTATION, OR FEE STATEMENTS) (100 WORD LIMIT)

RUSSIAN EMPIRE TO THE REVOLUTION OF 1917. KIEV RUS AND THE MONGOL CONQUEST, SERFDOM, TERRITORIAL EXPANSION, CULTURAL INSULARITY OF THE GREAT RUSSIAN STATE IN MOSCOW, WESTERNIZATION, REFORM, AND GREAT POWER STATUS IN 18TH AND 19TH CENTURIES, PEOPLES OF THE MULTI-NATIONAL EMPIRE, CULTURAL, EDUCATED SOCIETY, AND REVOLUTIONARY OPPOSITION, INDUSTRIALIZATION, RAPID URBANIZATION, WAR, AND REVOLUTION. CREDIT WILL NOT BE GIVEN FOR BOTH HI 438 AND HI 538.

TYPE OF PROPOSAL	
NEW COURSE	☐
DROP COURSE	☒
REVISE COURSE	☐
REVISION IN:	
CONTENT	☐
PREFIX/NUMBER	☐
TITLE	☐
ABBREVIATED TITLE	☐
CREDIT HOURS	☐
CONTACT HOURS	☐
GRADING METHOD	☐
SCHEDULING	☐
PRE/CO-REQUISITES	☐
RESTRICTIVE STATEMENT	☐
CATALOG DESCRIPTION	☐
LEARNING OUTCOMES	☐
GEP LEARNING OUTCOMES ONLY	☐
DUAL-LEVEL COURSE	☒
GEP COURSE	☐
CHECK APPLICABLE CATEGORY BELOW:	
HUMANITIES	☒
SOCIAL SCIENCES	☐
MATHEMATICAL SCIENCES	☐
NATURAL SCIENCES	☐
INTERDISCIPLINARY PERSPECTIVES	☐
VISUAL & PERFORMING ARTS	☐
PE/HEALTHY LIVING	☐
GLOBAL KNOWLEDGE CO-REQ	☒
U.S. DIVERSITY CO-REQ	☐
THEMATIC TRACK	☐

DOCUMENTATION AS REQUIRED (CHECK ALL THAT APPLY)	
COURSE JUSTIFICATION	☐
PROPOSED REVISION(S) WITH REASONS	☒
ENROLLMENT LAST 5 YEARS	☐
NEW RESOURCES STATEMENT	☐
CONSULTATION WITH DEPARTMENT(S) PROVIDED	☒
SYLLABUS (OLD AND NEW)	☐
GEP CATEGORY OBJECTIVES	☐
GEP STUDENT LEARNING OUTCOMES	☐
MEANS OF ASSESSING GEP OUTCOMES	☐

SIGNATURE PAGE ATTACHED

FOR COURSE ACTION FORM INSTRUCTIONS SEE
HTTP://WWW.NCSU.EDU/UAP/ACADEMIC-STANDARDS/COURSES/CRSINST.HTML

SIGNATURE PAGE

COURSE ACTION FOR HI 438

RECOMMENDED BY:

HEAD, DEPARTMENT/PROGRAM — DATE 8/28/14

ENDORSED BY:

CHAIR, COLLEGE COURSES & CURRICULA COMMITTEE — DATE 9/22/14

COLLEGE DEAN — DATE 9/24/14

APPROVED BY:

CHAIR, UNIVERSITY COURSES & CURRICULA COMMITTEE — DATE

CHAIR, COUNCIL ON UNDERGRADUATE EDUCATION — DATE

DEAN, DIVISION OF ACADEMIC AND STUDENT AFFAIRS (DASA) — DATE

APPROVED EFFECTIVE DATE _____

Justification for dropping HI 438: The Russian Empire to 1917

In 2013-14, the History Department revised its Russian/Soviet history offerings. We have a new course, HI 338 (Empire, War and Revolution in Russia) that replaces HI 438 (Russian Empire to 1817) and HI 439 (History of the Soviet Union and After).

HI 438 is in the elective lists for the Russian Studies Minor, the International Studies Minor, and the European concentration in the International Studies major. Those departments have been alerted that we will continue to offer one Russian history course in Spring semesters. The Russian Studies Minor requires only one elective course; the list of four available courses includes HI 438 and HI 439. Providing the replacement HI 338 will continue to provide a HI elective for students. HI 338 will typically be offered with more than twice as many seats as the previous 400-level courses, and with a lesser prerequisite. Similarly, the Europe area studies list in International Studies contains over 50 courses in the Area Studies elective, including 19 other European history courses. Impact on availability for students of having only one Russian history course will be minimal.

N.C. STATE UNIVERSITY
UNDERGRADUATE COURSE ACTION FORM
Effective September 2008

NOTE: Click shaded fields to type data and click on boxes to check.

DEPARTMENT/PROGRAM	HISTORY
COURSE PREFIX/NUMBER	HI 439
PREVIOUS PREFIX/NUMBER	
COURSE TITLE	HISTORY OF THE SOVIET UNION AND AFTER
ABBREVIATED TITLE	SOV UNION & AFTER
SCHEDULING	Fall ☒ Spring ☐ Summer ☐ Every Year ☐ Alt. Year Odd ☐ Alt. Year Even ☒ Other ☐
COURSE DELIVERY CHECK ALL THAT APPLY	ON CAMPUS ☒ DISTANCE EDUCATION ☐ ONLINE ☐ REMOTE LOCATION ☐
COURSE CREDIT/GRADING	CREDIT HOURS 3 | GRADING ABCDF ☒ S/U ☐
CONTACT HOURS *See contact/credit hour guidelines for detail.*	LECTURE 3 SEMINAR LABORATORY PROBLEM STUDIO INDEPENDENT STUDY RESEARCH INTERNSHIP PRACTICUM FIELD WORK
IS COURSE REPEATABLE FOR CREDIT?	# REPEATS ALLOWED NO
INSTRUCTOR(S) (NAME/RANK)	GERALD SURH, ASSOCIATE PROFESSOR DUAL APPOINTMENT? ☐

ANTICIPATED ENROLLMENT	Per semester 30 Per section 30 Will multiple sections be offered? Yes ☐ No ☒
PREREQUISITE(S)	3 HOURS OF HISTORY
COURSE(S) TO BE COMPLETED PRIOR TO ENROLLING	ENFORCE PRE-REQUISITE CHECKING? YES
CO-REQUISITE(S)	
COURSE(S) TO BE TAKEN CONCURRENTLY WITH THIS COURSE	ENFORCE CO-REQUISITE CHECKING?
PRE/CO-REQUISITE FOR...	
RESTRICTIVE STATEMENT (EX: MA AND AMA MAJORS ONLY)	
COURSE IS REQUIRED FOR:	
COURSE IS AN ELECTIVE FOR:	16HISTBA, 16HISTBS, 16HISTTED, 16HIM, 16RUM, 16ISM, 16INTSTBA-16INTSTEUR
PROPOSED EFFECTIVE DATE 8/14	APPROVED EFFECTIVE DATE | COURSE REVIEW DUE

CATALOG DESCRIPTION: (INCLUDE ANY RESTRICTIVE, TRANSPORTATION, OR FEE STATEMENTS) (100 WORD LIMIT)

SOVIET STATE AND SOCIETY FROM THE 1917 REVOLUTION, INCLUDING THE POST-SOVIET SITUATION. POLITICAL DISARRAY AND RESISTANCE TO THE BOLSHEVIK REGIME, 1917-21; INDUSTRIALIZATION, URBANIZATION, AND APPLICATION OF COERCIVE TECHNIQUES OF RULE; POPULAR RECONCILIATION WITH PARTY STATE AND GREAT POWER STATUS DURING WORLD WAR II AND AFTER; FATE OF NON-RUSSIAN NATIONALITIES; DE-STALINIZATION, STAGNATION, AND THE FAILED ATTEMPT AT PARTY RENEWAL AFTER 1985. CREDIT WILL NOT BE GIVEN BOTH FOR HI 439 AND HI 539.

TYPE OF PROPOSAL

- NEW COURSE ☐
- DROP COURSE ☒
- REVISE COURSE ☐
  - REVISION IN:
    - CONTENT ☐
    - PREFIX/NUMBER ☐
    - TITLE ☐
    - ABBREVIATED TITLE ☐
    - CREDIT HOURS ☐
    - CONTACT HOURS ☐
    - GRADING METHOD ☐
    - SCHEDULING ☐
    - PRE/CO-REQUISITES ☐
    - RESTRICTIVE STATEMENT ☐
    - CATALOG DESCRIPTION ☐
    - LEARNING OUTCOMES ☐
- GEP LEARNING OUTCOMES ONLY ☐
- DUAL-LEVEL COURSE ☒
- GEP COURSE ☐
  CHECK APPLICABLE CATEGORY BELOW.
  - HUMANITIES ☒
  - SOCIAL SCIENCES ☐
  - MATHEMATICAL SCIENCES ☐
  - NATURAL SCIENCES ☐
  - INTERDISCIPLINARY PERSPECTIVES ☐
  - VISUAL & PERFORMING ARTS ☐
  - PE/HEALTHY LIVING ☐
  - GLOBAL KNOWLEDGE CO-REQ ☒
  - U.S. DIVERSITY CO-REQ ☐
  - THEMATIC TRACK ☐

DOCUMENTATION AS REQUIRED

(CHECK ALL THAT APPLY)

- COURSE JUSTIFICATION ☐
- PROPOSED REVISION(S) WITH REASONS ☒
- ENROLLMENT LAST 5 YEARS ☐
- NEW RESOURCES STATEMENT ☐
- CONSULTATION WITH DEPARTMENT(S) PROVIDED ☒
- SYLLABUS (OLD AND NEW) ☐
- GEP CATEGORY OBJECTIVES ☐
- GEP STUDENT LEARNING OUTCOMES ☐
- MEANS OF ASSESSING GEP OUTCOMES ☐

SIGNATURE PAGE ATTACHED

FOR COURSE ACTION FORM INSTRUCTIONS SEE
HTTP://WWW.NCSU.EDU/IAP/ACADEMIC-STANDARDS/COURSES/CRSINST.HTML

SIGNATURE PAGE

COURSE ACTION FOR HI 439

RECOMMENDED BY:

HEAD, DEPARTMENT/PROGRAM — DATE 8/29/14

ENDORSED BY:

CHAIR, COLLEGE COURSES & CURRICULA COMMITTEE — DATE 9/22/14

COLLEGE DEAN — DATE 9/24/14

APPROVED BY:

CHAIR, UNIVERSITY COURSES & CURRICULA COMMITTEE — DATE

CHAIR, COUNCIL ON UNDERGRADUATE EDUCATION — DATE

DEAN, DIVISION OF ACADEMIC AND STUDENT AFFAIRS (DASA) — DATE

APPROVED EFFECTIVE DATE _____

Justification for dropping HI 439: History of the Soviet Union and After

In 2013-14, the History Department revised its Russian/Soviet history offerings. We have a new course, HI 338 (Empire, War and Revolution in Russia) that replaces HI 438 (Russian Empire to 1817) and HI 439 (History of the Soviet Union and After).

HI 439 is in the elective lists for the Russian Studies Minor, the International Studies Minor, and the European concentration in the International Studies major. Those departments have been alerted that we will continue to offer one Russian history course in Spring semesters. The Russian Studies Minor requires only one elective course; the list of four available courses includes HI 438 and HI 439. Providing the replacement HI 338 will continue to provide a HI elective for students. HI 338 will typically be offered with more than twice as many seats as the previous 400-level courses, and with a lesser prerequisite. Similarly, the Europe area studies list in International Studies contains over 50 courses in the Area Studies elective, including 19 other European history courses. Impact on availability for students of having only one Russian history course will be minimal.

N.C. STATE UNIVERSITY
UNDERGRADUATE COURSE ACTION FORM
Effective September 2008

NOTE: Click shaded fields to type data and click on boxes to check.

DEPARTMENT/PROGRAM	MUSIC/DASA
COURSE PREFIX/NUMBER	MUS 295
PREVIOUS PREFIX/NUMBER	
COURSE TITLE	SPECIAL TOPICS IN MUSIC
ABBREVIATED TITLE	SPECIAL TOPICS IN MUSIC
SCHEDULING	Fall ☒ Spring ☒ Summer ☒ Every Year ☐ Alt. Year Odd ☐ Alt. Year Even ☐ Other ☒ As needed
COURSE DELIVERY CHECK ALL THAT APPLY	ON CAMPUS ☒ DISTANCE EDUCATION ☐ ONLINE ☐ REMOTE LOCATION ☐
COURSE CREDIT/GRADING	**CREDIT HOURS** 1-3 **GRADING** ABCDF ☒ S/U ☐
CONTACT HOURS *See contact/credit hour guidelines for detail.*	LECTURE 1-3 SEMINAR LABORATORY PROBLEM STUDIO INDEPENDENT STUDY RESEARCH INTERNSHIP PRACTICUM FIELD WORK
IS COURSE REPEATABLE FOR CREDIT?	Y # REPEATS ALLOWED 3
INSTRUCTOR(S) (NAME/RANK)	DEPENDENT ON TOPIC; INSTRUCTOR OF RECORD TOM KOCH DUAL APPOINTMENT? ☐

ANTICIPATED ENROLLMENT	Per semester 20 Per section 20 Will multiple sections be offered? Yes ☒ No ☐
PREREQUISITE(S) COURSE(S) TO BE COMPLETED PRIOR TO ENROLLING	NONE ENFORCE PRE-REQUISITE CHECKING?
CO-REQUISITE(S) COURSE(S) TO BE TAKEN CONCURRENTLY WITH THIS COURSE	NONE ENFORCE CO-REQUISITE CHECKING?
PRE/CO-REQUISITE FOR…	N/A
RESTRICTIVE STATEMENT (EX: MA AND AMA MAJORS ONLY)	
COURSE IS REQUIRED FOR:	N/A
COURSE IS AN ELECTIVE FOR:	
PROPOSED EFFECTIVE DATE 1/2015	APPROVED EFFECTIVE DATE / COURSE REVIEW DUE

CATALOG DESCRIPTION: (INCLUDE ANY RESTRICTIVE, TRANSPORTATION, OR FEE STATEMENTS) (100 WORD LIMIT)

EXAMINATION OF SPECIAL TOPICS IN MUSIC.

TYPE OF PROPOSAL

- NEW COURSE ☒
- DROP COURSE ☐
- REVISE COURSE ☐
  - REVISION IN:
    - CONTENT ☐
    - PREFIX/NUMBER ☐
    - TITLE ☐
    - ABBREVIATED TITLE ☐
    - CREDIT HOURS ☐
    - CONTACT HOURS ☐
    - GRADING METHOD ☐
    - SCHEDULING ☐
    - PRE/CO-REQUISITES ☐
    - RESTRICTIVE STATEMENT ☐
    - CATALOG DESCRIPTION ☐
    - LEARNING OUTCOMES ☐
- **GEP LEARNING OUTCOMES ONLY** ☐
- DUAL-LEVEL COURSE ☐
- **GEP COURSE** ☐
  CHECK APPLICABLE CATEGORY BELOW.
  - HUMANITIES ☐
  - SOCIAL SCIENCES ☐
  - MATHEMATICAL SCIENCES ☐
  - NATURAL SCIENCES ☐
  - INTERDISCIPLINARY PERSPECTIVES ☐
  - VISUAL & PERFORMING ARTS ☐
  - PE/HEALTHY LIVING ☐
  - GLOBAL KNOWLEDGE CO-REQ ☐
  - U.S. DIVERSITY CO-REQ ☐
  - THEMATIC TRACK ☐

DOCUMENTATION AS REQUIRED

(CHECK ALL THAT APPLY)

- COURSE JUSTIFICATION ☒
- PROPOSED REVISION(S) WITH REASONS ☐
- ENROLLMENT LAST 5 YEARS ☐
- NEW RESOURCES STATEMENT ☐
- CONSULTATION WITH DEPARTMENT(S) PROVIDED ☐
- SYLLABUS (OLD AND NEW) ☐
- GEP CATEGORY OBJECTIVES ☐
- GEP STUDENT LEARNING OUTCOMES ☐
- MEANS OF ASSESSING GEP OUTCOMES ☐

SIGNATURE PAGE ATTACHED

FOR COURSE ACTION FORM INSTRUCTIONS SEE
HTTP://WWW.NCSU.EDU/UAP/ACADEMIC-STANDARDS/COURSES/CRSINST.HTML

Justification:

The Music Department is proposing MUS 295 as a special topic shell to allow for offering of music courses on a trial basis at the 200-level and to offer a music course on a topic not currently covered in the departmental curriculum which is likely to be offered one time only.

Requirements and Grading:

Faculty will provide a syllabus for offerings under the special topics shell per the syllabus regulation requirements and grades will be determined based on tests, projects, homework an by other appropriate evaluation methods.

Resources:

There are no additional resources needed for establishing this special topic shell and topic offerings will be part of the faculty course load as applicable.

Department Head Signature 10/1/14 Date

DASA/CCC Chair Signature 10/1/14 Date

College Dean Signature Date

UCCC Chair Signature Date

Dean, Division of Academic & Student Affairs (DASA) Date

North Carolina State University is a land-grant university and a constituent institution of The University of North Carolina

Department of Music
Division of Student Affairs

NC STATE UNIVERSITY

Price Music Center
Campus Box 7311
Raleigh, NC 27695-7311

919.515.2981
919.515.4204 (fax)

MEMORANDUM

TO: University Courses and Curricula Committee (UCCC)

FROM: Tom Koch, Interim Director, Music Department

DATE: September 18, 2014

RE: Revision in instructional format and number of credits for MUS 493 (Recital)

With this memo, I am requesting a

1. A change in instructional format for MUS 493 (Recital) from Studio to Recital, Performance, and Ensemble (RPE)
2. A change in the number of credits allotted to MUS 493 (Recital) from 2 credits to 1 credit.

Justification:

1. In accordance with the UNC-wide instatement of new instructional formats, MUS 493 should be reassigned to Recital, Performance, and Ensemble (RPE) to better match its content and purpose.
2. A change in credit hours is needed under this new format, which sets the number of contact minutes per credit at 750. The contact minutes of MUS 493 averages approximately 1,000 minutes and thus does not justify 2 credits (= 1,500 minutes).

Proposed effective date: January 2015

Thomas D. Koch 10/1/14
Department Head Signature Date

10/1/14
DASA CCC Chair Signature Date

College Dean Signature Date

UCCC Chair Signature Date

Dean, Division of Academic & Student Affairs (DASA) Date

North Carolina State University is a land-grant university and a constituent institution of The University of North Carolina

Music Dept
DASA
Price Music Center
Campus Box 7311
Raleigh, NC 27695-7311

NC STATE UNIVERSITY

919.515.2981
919.515.4204 (fax)

MEMORANDUM

TO: University Courses and Curricula Committee (UCCC)

FROM: Tom Koch, Interim Director, Music Department

DATE: September 18, 2014

RE: Reassignment of courses to Recital, Performance, and Ensemble (RPE)

With this memo, I am requesting that, in accordance with the UNC-wide instatement of new instructional formats, the following courses be reassigned to Recital, Performance, and Ensemble (RPE) to better match their content and purpose. Although contact hours per course vary from 1 to 5 hours per week, each shall continue to receive 1 credit.

Reassignment of the following courses to RPE:

MUS 107 (Class Piano I)	currently Studio
MUS 112 (Men's Choir)	currently Studio
MUS 113 (Women's Choirs)	currently Studio
MUS 115 (State Chorale)	currently Studio
MUS 121 (Raleigh Civic Symphony)	currently Studio
MUS 122 (Raleigh Civic Chamber Orch)	currently Studio
MUS 131 (Marching Band)	currently Studio
MUS 132 (Varsity Band)	currently Studio
MUS 134 (Wind Ensemble)	currently Studio
MUS 140 (Jazz Improvisation)	currently Studio
MUS 141 (Jazz Combo II)	currently Studio
MUS 142 (Jazz Ensemble II)	currently Studio
MUS 143 (Jazz Combo I)	currently Studio
MUS 144 (Jazz Ensemble I)	currently Studio
MUS 150 (Vocal Techniques)	currently Laboratory
MUS 152 (Pipes and Drums)	currently Seminar
MUS 207 (Class Piano II)	currently Studio
MUS 300 (Chamber Music Perf)	currently Laboratory
MUS 390 (Applied Music)	currently Lecture

Proposed effective date: January 2015

Thomas D. Koch 10/1/14
Department Head Signature Date

Peggy L. Duncan 10/1/14
DASA CCC Chair Signature Date

College Dean Signature Date

UCCC Chair Signature Date

Dean, Division of Academic & Student Affairs (DASA) Date

APPENDIX J

UNIVERSITY OF NORTH CAROLINA

REQUEST FOR AUTHORIZATION TO PARTICIPATE IN AN INTER-INSTITUTIONAL ARRANGEMENT

INSTRUCTIONS: Three copies are to be submitted to the General Administration prior to implementation of an inter-institutional arrangement.

Date: **September 15, 2014**

Constituent Institution: **North Carolina Central University (NCCU)**

Constituent Institution: **North Carolina State University (NC STATE)**

Proposed Title of the Inter-institutional Organization:

Physics-Engineering Dual-Degree Program between NCCU and NC STATE

1. **Describe the nature and purpose of the proposed inter-institutional arrangement.**

   The purpose of the proposed inter-institutional arrangement is to establish Dual Degree programs of study between North Carolina Central University (NCCU) and North Carolina State University (NCSU). The dual degree programs will be:

   B.S in Physics from NCCU and B.S. in Electrical Engineering from NCSU

2. **Provide the name, location, and a description of the governance of the contracting organizations (or those that will form the consortium) with information concerning the accredited status of all parties involved.**

   NCCU and NCSU are two of the 16 constituent institutions that make up the multi-campus University of North Carolina system of universities for the state of North Carolina. NCCU is located in Durham, NC. NCSU is located in Raleigh, NC, about 20 miles from Durham.

   The B.S. in Physics degree program is offered by NCCU through its Department of Mathematics & Physics in the College of Arts and Sciences. The B.S. in Electrical Engineering is offered by NCSU through its Department of Electrical and Computer Engineering in the College of Engineering. Both NCCU and NCSU are accredited by the Southern Association of Colleges and Schools' Commission on Colleges (SACS). There

is no accrediting body for the B.S. in Physics degree program offered by NCCU. The Engineering Accreditation Commission (EAC) of the ABET accredits the B.S. in Electrical Engineering degree program offered by NCSU.

3. **Provide the rationale for entering into the contract or the consortium and an assessment of need. Indicate the extent of course sharing and the use of shared courses in degree programs.**

   The proposed Dual Degree program builds upon the existing natural links between the two institutions as members of the UNC System. Presently students do transfer between the two institutions and many course equivalencies have already been mapped. This program is focused on creating a specific linkage between strategically important programs at each institution — namely the BS in Physics program at NCCU and the Electric Engineering program at NC State. This program will create a mechanism to recruit, admit and graduate students into these programs that does not exist today. It allows NC Central to offer recruited STEM-interested students a pathway to an engineering degree that would be more economically feasible. In addition, targeted students who desire both the environment and culture of the HBCU experience as well as a pathway to an engineering degree should find this option attractive. For NC State, this program provides a mechanism to partner with a UNC sister institution in its recruitment of high engineering quality students — specifically advancing college goals related to access and diversity.

   Under the Dual Degree format students would be first admitted to NCCU and attend for approximately three (3) academic years following a physics curriculum. After completing course requirements students would then transfer to and attend NCSU for approximately two (2) academic years following the electrical engineering curriculum. General education, science and mathematics course credits earned by students at NCCU will be transferred toward meeting degree requirements in engineering at NCSU. Conversely, engineering course credits earned by students at NCSU will transfer back to NCCU toward meeting the remaining degree requirements for physics. The Dual Degree program curriculum plan for Physics at NCCU and Electrical Engineering at NCSU are presented in Attachment I.

   The Dual Degree student will be eligible to apply for graduation from either or both institutions at any point in time as they meet necessary requirements for either or both degrees. After completing the academic requirements of both cooperating institutions, the student will have been awarded a B.S. Degree in Physics from NCCU and a B.S. Degree in Electrical Engineering from NCSU.

4. **Provide a timetable for implementation of the contract/consortium.**

   The proposed degree program builds on existing curriculum and an existing transfer pathway for students at the institutions. As such, we seek for approval for this program effective August 1, 2015 (beginning of Fall semester 2015).

5. **Describe administrative oversight over the quality of programs/services offered through the contract/consortium.**

   The Dual Degree program curriculum plan for Physics at NCCU and Electrical Engineering at NCSU presented in Attachment I represents a guide for course crediting for the undergraduate degree at the respective institutions. The University Registrar at each institution will utilize this document and the appropriate course transfer forms completed by the departmental advisors in crediting courses on the student's transcript and to clear students to receive the respective degrees.

   To insure that the admission and academic success of participating students, North Carolina Central University and North Carolina State University agree to develop, maintain, and improve continuously program management and reporting as outlined below.

   <u>Each institution will:</u>

   1. Appoint a program coordinator to coordinate activities, monitor student progress, and evaluate the program.

   2. Appoint an advisor for each participating student

   3. List the program in the appropriate publications of the institution

   4. Exchange regularly updated copies of its general catalogs and any other publications which may be helpful in advising students

   5. Exchange dual degree program forms and applications as appropriate

   6. Provide timely information about significant changes in the program of study that relate to the preparation of participating students.

   7. Share monitoring information about newly admitted students and progress information about continuing students in the program.

   8. Meet and discuss program activity at least once annually

   9. The program coordinators from each institution will assess the program annually in collaboration with participating faculty, advisors, and students to continuously improve the program.

6. **Identify resources required to support the conditions of the contract/consortium (financial resources, library/learning resources, physical facilities, equipment).**

   The degree programs in this agreement at each institution already exist and no new or additional resources are required to support a 3-plus-2 Dual Degree program between NCCU and NCSU. Undergraduate Admissions at NCCU and at NCSU are the same minimum course requirements as all UNC System institutions.

7. **Attach any charter or bylaws and a copy of the contract for programs/services or the consortial arrangement statement.**

   There are no special charter or bylaws and no special contract for program/services for this agreement.

8. **Provide the name, title, and address of the person authorized to respond to any questions.**

North Carolina Central University **1801 Fayetteville Street** **Durham, NC 27707** Benjamin Crowe, Ph.D. Coordinator of Physics Program Mathematics and Physics Department email: bcrowe@nccu.edu phone: 919-530-5103 Caesar Jackson, Dean School of Graduate Studies email: crjackson@nccu.edu phone: 919-530-7396 Sung-Sik Kwon, Interim Chair Mathematics and Physics Department email: skwon@nccu.edu phone: 919-530-5111 Carlton Wilson, Dean College of Arts and Sciences email: cwilson@nccu.edu phone: 919-530-6794	**North Carolina State University** **Raleigh, NC 27695** Pam Page Carpenter, Ph.D. Education Program Manager Electrical and Computer Engineering Dept. email: pam_carpenter@ncsu.edu phone: 919-513-8335 Alice Forgety Director, Recruiting, Enrollment Management & Educational Programs email: alice_forgety@ncsu.edu phone: 919-515-3263 Jerome Lavelle, Ph.D. Associate Dean of Academic Affairs College of Engineering email: jerome_lavelle@ncsu.edu Phone: 919-515-3263

Chancellor: _____ Chancellor: _____

North Carolina Central University North Carolina State University

Proposed 3-PLUS-2 NCCU Physics Curriculum Plan			
YEAR 1			
Fall Semester	**Cr**	**Spring Semester**	**Cr**
*ENG 1110 English Composition I	3	*ENG 1210 English Composition II	3
*HUSC 1521 Dimensions of Learning	2	*HUM Arts & Humanities I or II	3
*HEDU 1531 Health	2		
%MATH 2010 Calc & Anal Geom I	5	%MATH 2020 Calc & Anal Geom II	5
*PHYS 2305 Fun of Physics I	3	*PHYS 2310 Fun of Physics II	3
*PHYS 2410 Fun of Physics Laboratory I	1	*PHYS 2420 Fun of Physics Laboratory II	1
	16		**15**
YEAR 2			
Fall Semester	**Cr**	**Spring Semester**	**Cr**
*ENG 1250 Elements of Speech	3	*HIST 1320 World Societies	3
%MATH 3020 Differential Eqns	3	*PEDU 1541 Fitness	2
%CHEM 1100 Gen Chemistry I	4	%CHEM 1200 Gen Chemistry II	4
*PHYS 2320 Fun of Physics III	3	%MATH 2030 Calc & Anal Geom III	3
*PHYS 3100 Princ. of Electronics or PHYS 3200 Data Acq Contr & Anal	3	*PHYS 3310 Modern Physics	3
		*PHYS 3210 Advanced Lab I	2
	16		**17**
YEAR 3			
Fall Semester	**Cr**	**Spring Semester**	**Cr**
*WI GEC Course	3	*SOSC GEC Requirement	3
*MFL Level III GEC Requirement	3	*HUM GEC Requirement	3
*PHYS 3110 Mechanics	3	*PHYS 4300 Intro to Quantum Mech	3
*PHYS 4220 Math Methods of Phys	3	*PHYS 3060 Electricity & Magnetism	3
*PHYS 3410 Comp Physics	3	#PHYS Physics Elective	1
		*PHYS 3220 Advanced Lab II	2
	15		**15**
TRANSFER CREDITS FROM NC STATE TO SATISFY FOLLOWING (30 cr hrs)			
	Cr		**Cr**
$#PHYS Physics Elective	3	$#PHYS Physics Elective	3
$#PHYS Physics Elective	3	$#PHYS Physics Elective	3
$#PHYS Physics Elective	3	$#PHYS Physics Elective	3
$& Elective	3	$& Elective	3
$& Elective	3	$& Elective	3

Proposed 3-PLUS-2 NC STATE Electrical Engineering Curriculum Plan			
SUMMER			
Summer Session I	**Cr**	**Summer Session II**	**Cr**
ECE 200 Intro to ECE Lab	**4**	ECE 200 – 10 week course	
	4		
PLUS YEAR 1			
Fall Semester	**Cr**	**Spring Semester**	**Cr**
ECE 211 Electric Circuits	4	ECE Foundation Elect	3
ECE 109 Intro to Computer Systems	3	ECE 383 Intro to Entrepreneurship	1
E 115 Intro to Computing Environ	1	ECE 302 Intro to Microelectronics	4
ECE 220 Anal Found of ECE	3	Open Tech Elect	3
ST 371 Intro Prob & Distr Theory	3	ECE 212 Fund of Logic Des	3
		ECE 209 Comp Sys Programming	3
	14		**17**
Summer Session I		ECE 301 Linear Sys	**3**
		ECE 303 Electromagnetic Fields	**3**
PLUS YEAR 2			
Fall Semester	**Cr**	**Spring Semester**	**Cr**
ECE 482 Engr Entrepren I	3	ECE 483 Engr Entrepren II	3
ECE 4XX Elective	3	Open Tech Elect	3
ECE 4XX Elective	3	ECE 4XX Elective	3
ENG 331 Com for Engr & Tech	3	ECE 4XX Elective	3
ECE Foundation Elect	3		
	15		**12**
TRANSFER CREDITS FROM NCCU TO SATISFY FOLLOWING (55 cr hrs)			
General Education			
• Includes ENG 101	4	MA 141, 241, 242	12
• Includes Humanities/Arts	6	Chem 101, 102	4
• ECON, Social Sci, Add Breadth	9	Phys 205,206,208,209	8
• Includes PE/Health	2	GEP: Inter Persp, COM 110, E 101	10

15	**15**
TOTAL MINIMUM CREDIT HOURS: 124 (94-NCCU plus 30-NC STATE)	
Distribution of Hours * Core Curriculum - 72 % Non-Departmental Required Courses – 24 # Physics Electives – 13 & Electives – 15 (SI) = Speaking Intensive; (WI) = Writing Intensive < Possible Physics Electives: PHYS 3070-Electricity and Magnetism II, PHYS 3100-Principles of Electronics or PHYS 3200-Data Acquisition and Analysis, PHYS 3120-Mechanics II, PHYS- 3290 Environmental Physics, PHYS 3510-Nanotechnology, PHYS 4230- Lasers and Applied Optics, PHYS 4250-Science Instrumentation, PHYS 4310- Quantum Mechanics II, PHYS 4320-Nuclear and Particle Physics, PHYS 4330- Solid State Physics, PHYS 4410-Computational Physics II, PHYS 4700-Physics Research Seminar, PHYS 4800-Undergraduate Physics Research, PHYS- 4900 Senior Thesis. Many 3000-4000 science courses may be approved.	

21	**34**
TOTAL MINIMUM CREDIT HOURS: 122 (68-NC STATE plus 55-NCCU)	
Notes: ECON 2300 should be taken at NCCU; it transfers as EC 201. ENG 2200 should be taken at NCCU; it transfers as COM 110. E 101 substitute will be met via transfer of unused science. E 115 could be taken online while at NCCU via the NCSU NDS program. GK and USD must be met in transferred GEP's or taken at NCSU. **NCCU Request:** Interested in undergraduate research experience program for 3-plus-2 candidates during first summer transition.	

DUAL DEGREE PROGRAM AGREEMENT
BETWEEN NORTH CAROLINA CENTRAL UNIVERSITY AND
NORTH CAROLINA STATE UNIVERSITY, COLLEGE OF ENGINEERING

This agreement ("Agreement") establishes an Agreement whereby an undergraduate student will attend North Carolina Central University ("NCCU") for approximately three years and then attend North Carolina State University's ("NCSU") College of Engineering for approximately two years. After successful completion of the admission, transfer, and academic requirements of both institutions, as summarized below, the student will be awarded a Bachelor of Science degree in a discipline (listed below) from NCCU and a Bachelor of Science degree in a discipline (listed below) from NCSU.

BS from NCCU	**BS from NCSU**
Physics	Electrical Engineering

Admission to NCCU

1. Any student who meets the general admission requirements of NCCU is eligible to participate in this program. However preferences will be given to students with a strong background in mathematics and the sciences.

2. Students are encouraged to enroll in this program before the first semester of their freshman year; they should declare their NCCU major during their first semester at NCCU and choose as an advisor the Engineering Program Coordinator at NCCU.

3. Students who enroll into this program during or after their first semester at NCCU may have to extend their time to complete the two degrees. Alternative solutions to meeting the requirements of the program may be suggested by the Engineering Program Coordinator at NCCU.

4. Students can transfer from other colleges and universities into this program at NCCU and receive credit for the equivalent courses common to both the NCCU and NCSU curricula. The equivalencies will be determined and communicated to the student by the Engineering Program Coordinator at NCCU and the Coordinator of Transfer Programs at NCSU College of Engineering.

Transfer to North Carolina State University

1. Participants in this program must take, including courses in which the student is currently enrolled a minimum of 55 semester hours at NCCU (and including courses transferred to NCCU from other institutions, including NCSU) before applying for transfer admission to NCSU. Note that the student must take 48 of the last 60 hours of the engineering major at NCSU.

2. Students must maintain a GPA of 3.0 or better at NCCU to continue enrollment in the program. Admission to NCSU College of Engineering is dependent on GPA and the successful completion of a set of required courses. (See the College of Engineering transfer website for a list of current minimum requirements: http://www.engr.ncsu.edu/academics/undergrad/admission/transfer-admission.

3. When a dual degree student is admitted to NCSU, the transcript from NCCU will be evaluated, and appropriate credit will be given toward the NCSU degree requirements. A current list of equivalent courses can be accessed on-line at the "NCSU Transferable Course List" at: https://www.acs.ncsu.edu/scripts/ugadmiss/trnsfcrs.pl.

4. The Engineering Program Coordinator at NCCU and the Coordinator of Transfer Programs at NCSU will remain in communication with one another regarding the evaluation of transfer courses. In order to maximize transfer credit, students must consult the Engineering Program Coordinator at NCCU on a regular basis to determine which courses are applicable to their intended NCSU engineering degree.

5. Students who are ready for an official transfer must complete an NCSU transfer application at: http://admissions.ncsu.edu/apply/.

Academic Program

1. To complete the program, students must take courses as required for graduation and for the chosen degrees in the NCCU and NCSU catalogs. The Engineering Program Coordinator at NCCU will assist the student in designing a five (5)-year plan to satisfy the requirements of both schools.

2. The student is responsible for making sure that courses taken to satisfy general education requirements at either NCCU or NCSU are approved for this purpose by both schools before taking the course. This approval will come from the Dean of the College of Arts & Sciences at NCCU and the Coordinator of Transfer Programs at NCSU. The Engineering Program Coordinator at NCCU will assist this process.

3. The Dean of the College of Arts & Sciences at NCCU shall approve courses taken at NCSU to satisfy NCCU general education requirements.

Program Management

1. If a student falls behind schedule, the selected program may be extended in time without including additional courses.

2. If any curriculum changes occur at either institution that could affect this program, such changes are to be resolved and incorporated into the program through consultation between the two institutions.

3. Any student admitted to NCSU who does not successfully complete or who elects not to complete the requirements for the NCSU degree will be eligible to complete the requirements for the Bachelor's degree declared at NCCU.

4. This Agreement is subject to change or modification by written mutual consent between the institutions.

5. Either institution may terminate this Agreement by written notice to the other institution, given at least one (1) year in advance of such termination date. It is, however, understood and agreed that any student already admitted to the Dual Degree Program at NCCU and specifically tracked for admission or already admitted to the NCSU portion of the program will be given the opportunity to complete such program, notwithstanding termination of this Agreement, so long as the student is and continues in good academic standing and is making progress toward completing the program and degree.

MEMORANDUM OF AGREEMENT FOR DUAL DEGREE PARTNERSHIP

Collaborative Academic Agreement

Establishment of a dual degree with N.C. State University requires completion of this MOA and signatory approval by the Provost. In addition, SACSCOC must be notified 6 months prior to implementation of this agreement.

Complete the following:

I. N.C. State Participation:

Level of Degree: BS **College Participating:** COE **Other Participating College(s):** N/A

Full Title of Degree Conferred (Include concentration title if applicable.): Bachelor of Science in Electrical Engineering

Name and contact information for the primary developer of Agreement: Alice Forgety, afforget@ncsu.edu,
Director of Recruiting, Enrollment Management & Educational Partnerships
College of Engineering
North Carolina State University
Campus Box 7094, 120 Page Hall
919-515-3263 (phone) 919-515-8702 (fax)

II. Participating Partner Institution: ***If multiple partners, complete separate form for each.***

Name of Partner Institution: North Carolina Central University
Location of Institution: Durham, NC

Name and contact information for the primary developer of this Agreement (include address, phone, email, etc.)
Caesar R. Jackson, PhD

Dean (Interim) School of Graduate Studies
North Carolina Central University
1801 Fayetteville Street
Durham, NC 27707
Office Phone: (919) 530-7396

Level of Degree: BS **or** Enter text

Full Title of Degree Conferred (Include concentration title if applicable):
Bachelor of Science in Physics

Partner Institution Accreditation Status: Category 1 - Accredited by SACSCOC

Other Accreditation, Licensure or Approving Body Information (Ex: ABET, EQUIS/EFMD, AACSB):
Enter text

Duration of Agreement: ***(Minimum 5 years. Unless otherwise specified – prior to end of 5th year, agreement must be approved for extension.)***
At least 5 years

III. Timeline:

Proposed Start Date of Agreement: 8/1/2015

Expected Date for recruitment and advertising: 8/1/2015

Expected Date of student matriculation/enrollment in dual degree program: 8/15/2015

Date NCCU students start in the dual degree program: August 2015

IV. Attachments:

In addition to this MOA, attach other applicable documentation and list each attachment/appendices below:

(ex: Memorandum of Understanding (broad agreement of partnership), prospectus (if substantive change))

See attached MOU and proposed curriculum.

V. Collaborative Objectives:

1. **What is the purpose and benefits of the dual degree partnership?** Increasing access, diversity and enrollment in a STEM discipline at both institutions.
2. **What evidence of institutional/program comparability exists (rankings, joint faculty research, publications, etc.)?** NC Central's BS in Physics is an excellent match academically for a dual degree with NCSU's BS in Electrical Engineering. There are many curricular areas of commonality. NCCU does not offer a degree in engineering. This dual degree program would offer educational enrichment and enhanced career opportunities for the degree recipients.
3. **What are the areas of mutual interest? Past partnerships?** Increasing diversity and enrollment in a STEM discipline. No previous dual degree program was available through the College of Engineering.
4. **Provide a brief description of how this agreement advances the partner institution's priorities?** It offers their students a viable path to an engineering degree at a local university. It may also increase enrollment and graduation rates in the discipline of physics.
5. **How does this agreement advance the mission of NC State University?** In addition to promoting good will and access, it advances diversity in the College of Engineering.
6. **How does this agreement advance the mission of the partnering College at NC State University?** It increases the academic and career opportunities for its students in engineering, a discipline to which they would not otherwise have had access.

VI. Administration:

1. **How was the proposed dual degree developed?** ***Describe the process by which NC State faculty worked with the partner faculty to plan program content, select courses, and choose mode of delivery.***
   - **A.** Staff from NCSU's Electrical and Computer Engineering Department and from Engineering Academic Affairs worked directly with representatives from NCCU to develop the initial curriculum, taking into account the requirements for both degrees and also making sure to include the required engineering transfer courses for NCSU admission. A couple of iterations on the proposed curriculum ensured completion of all prerequisites and graduation requirements from both institutions were met.
   - **B.** We held a joint meeting on 8-26-14 to hone details. NCSU representatives present at the meeting were as follows:
     Cecilia Townsend – Coordinator of Undergraduate Programs, ECE department,
     Jerome Lavelle – Associate Dean of Academic Affairs,
     Alice Forgety – Director of Educational Partnerships, College of Engineering Academic Affairs.
     NCCU representatives present were:
     Caesar Jackson, Interim Dean of Graduate Studies,
     Ben Crowe – Associate Professor, Physics

2. **How will the proposed program be administered?** ***Include detail regarding each partner responsibilities related to administration, academic policy enforcement, logistics, and student recruitment, registration, admissions. Attach organizational chart if applicable.***
   Students will meet required transfer courses at NCCU prior to admission into the College of Engineering. They will apply to transfer to NCSU. If they meet all minimum requirements and are competitive, they may be admitted to NCSU. There is no guarantee of admission to NCSU. Refer to this link for details of College of Engineering transfer admission: *http://www.engr.ncsu.edu/academics/undergrad/admission/transfer-admission*

To help insure the admission and academic success of participating students, North Carolina Central University and North Carolina State University agree to develop, maintain, and improve continuously program management and reporting as outlined below.

Each institution will:

1. Appoint a program coordinator to coordinate activities, monitor student progress, and evaluate the program.
2. Appoint an advisor for each participating student
3. List the program in the appropriate publications of the institution
4. Exchange regularly updated copies of its general catalogs and any other publications which may be helpful in advising students
5. Exchange dual degree program forms and applications as appropriate
6. Provide timely information about significant changes in the program of study that relate to the preparation of participating students.
7. Share monitoring information about newly admitted students and progress information about continuing students in the program.
8. Meet and discuss program activity at least once annually
9. The program coordinators from each institution will assess the program annually in collaboration with participating faculty, advisors, and students to continuously improve the program.

3. How will tuition and fees be coordinated? No coordination is required. NCCU students will pay for NCSU courses as they take them.

4. Proposed NC State SIS code for designated students participating in dual degree. (max 10 char) Enter text

NDS until admitted. Once admitted: 14EEBS

VII. NC State Policy Disclaimer for this agreement:

"Students participating in this coordinated dual degree program will be subject to all applicable N.C. State University policies and regulations."

Yes

VIII. Expected Annual Faculty/Student Participation:

N.C. State	Year 1	Year 2	Year 3	Year 4	Year 5
Students	#	#	#	#	#
Faculty Exchange	0	0	0	0	0

Partner Institution	Year 1	Year 2	Year 3	Year 4	Year 5
Students	1-5	5-10	5-10	10-15	10-15
Faculty Exchange	0	0	0	0	0

IX. CURRICULUM DESIGN:

1. **Provide an overview of how the degree requirements for each Institution will be completed as part of this dual arrangement.** Students will spend about 3 years at NCCU completing physics degree requirements and NCSU engineering minimum transfer admission requirements. They will then spend about 2 years at NCSU completing electrical engineering degree requirements as well physics course requirements met by courses which will transfer back to NCCU.
2. **Provide list of NC State course requirements for degree and equivalency to related courses at Partner Institution.** ***(Attach as semester-by-semester display of course requirements and provide a list of course requirements and equivalencies for the dual degree program):***
   See attached semester-by-semester display.
3. **Provide list of Partner Institution's course requirements, analysis of course content, and equivalency to related courses at NC State.** All NCCU courses have already been evaluated and are in the NCSU transfer equivalency database. Refer to http://www.engr.ncsu.edu/academics/undergrad/admission/transfer-admission.
4. **Describe how and when transfer courses will be evaluated.** Courses are already approved for transfer and in NCSU database.
5. **If Thesis requirement, provide details (supervision/credit).** N/A
6. **What is the total percentage of courses taken at Partner Institution?** 45%
7. **What is the total percentage of courses taken at NC State?** *(For graduate programs at least 50% of hours and for undergraduate programs at least 25% must be taken at NC State)* 55%
8. **List the total number of degree hours required for completion of the N.C. State degree** 122 **and the total number of hours that will be accepted in transfer credit by N.C. State** *(Note: If exceeding the 12 hour transfer maximum for graduate programs, explain)***.** 55
9. **List the total number of degree hours required for completion of the Partner Institution's degree** 124 **and the total number of hours that will be accepted in transfer credit by the Partner Institution.** 30
10. **Will the course credit from Partner Institution count toward NC State GPA calculation? (If yes, explain)** No
11. **To be eligible for a bachelor's degree, a student must have earned at least 30 of the last 45 hours of course credit through NC State courses. If this requirement will not be met, please explain.** Enter text
12. **Describe other requirements. (residence, comprehensive exams, internships, language, etc)** All NCSU degree requirements for a BS in EE will be met. All NCCU degree requirements for a BS in Physics will be met.
13. **Provide list of courses that will be offered totally online and in hybrid format. Indicate the applicable format next to each course.** None are needed.
14. **Will NC State courses be offered at an off-campus site either through DE or face-to-face? If so, has the site been approved by SACS?** No

X. ASSESSMENT/MEASURABLE OUTCOMES:

What are the measurable student learning outcomes for this academic arrangement and how will they be assessed?
Note: Outcomes for the existing degree must be met in the dual degree arrangement. Provide any additional outcomes related to the academic collaborate arrangement

There are no additional learning outcomes related to the collaborative agreement. The learning outcomes and assessment will be the same as those for any other NCSU students receiving a BS in electrical engineering. The outcomes include the following outcomes vetted by ABET accreditation and listed herein and at this link: http://www.abet.org/eac-criteria-2014-2015/ :

(a) an ability to apply knowledge of mathematics, science, and engineering
(b) an ability to design and conduct experiments, as well as to analyze and interpret data
(c) an ability to design a system, component, or process to meet desired needs within realistic constraints such as economic, environmental, social, political, ethical, health and safety, manufacturability, and sustainability

(d) an ability to function on multidisciplinary teams
(e) an ability to identify, formulate, and solve engineering problems
(f) an understanding of professional and ethical responsibility
(g) an ability to communicate effectively
(h) the broad education necessary to understand the impact of engineering solutions in a global, economic, environmental, and societal context
(i) a recognition of the need for, and an ability to engage in life-long learning
(j) a knowledge of contemporary issues
(k) an ability to use the techniques, skills, and modern engineering tools necessary for engineering practice.

XI. FACULTY CREDENTIALS FROM THE PARTNER INSTITUTION:

Provide a list of the faculty directly involved in teaching courses as part of this program of study. ***Attach the CV for each.***
Not applicable: NCCU is SACS accredited. Their faculty have been vetted. NCSU already accepts all of the courses for transfer which will be used in this degree.

XII. INSTITUTIONAL COMMITMENT AND RESOURCES:

NC State University:

1. **Provide description of NC State's commitment to this academic arrangement.** No additional funds or resources are needed. These students will be engineering transfer students who happen to be also receiving a degree from NCCU.
2. **Provide detail regarding the funding for this arrangement (amount,source,duration).** None needed.
3. **Provide detail regarding facilities and space (amount,source,duration).** None needed.
4. **Provide detail regarding library resources (amount,source,duration).** None needed.
5. **Provide detail regarding equipment required for this arrangement.** None needed.
6. **Other:** Enter text

Partner Institution:

1. **Provide description of Partner's commitment to this academic arrangement.** No additional funds or resources are needed. These students will be NCCU physics students who transfer to NCSU and who will also be receiving both a degree from NCCU and NCSU.
2. **Provide detail regarding the funding for this arrangement (amount,source,duration).** None needed.
3. **Provide detail regarding facilities and space (amount,source,duration).** None needed.
4. **Provide detail regarding library resources (amount,source,duration).** None needed.
5. **Provide detail regarding equipment required for this arrangement.** None needed.
6. **Provide detail regarding any institutional policy or practice that would prohibit student participation based on race, gender, ethnicity, or religion.** N/A
7. **Other:** Enter text

XIII. REVIEW SCHEDULE FOR AGREEMENT:

All agreements will be for a period of five years, unless otherwise specified. Prior to the end of the fifth year the agreement must be reviewed and re-approved if requesting an extension. Upon the scheduled review date, responses to review criteria will be

required to be completed and provided to the university review committee. If the agreement will be discontinued, a teach-out plant will be required for those students remaining in the program.

As part of this agreement, specify the following:

What criteria will be used by the participating NC State College to determine whether the program should continue?
Number enrolled, number graduating with dual degree

In what year will this agreement be evaluated? 5 years from the date of final signature

XIV. SACSCOC disclaimer to be followed as part of this Agreement:

For agreements with Partner institutions that are not accredited by SACSCOC, the following disclaimer must be included in the Memorandum of Agreement and in any advertised postings by the Partner institution in compliance with SACSCOC procedures related to collaborative academic agreements. The NC State program coordinator for this agreement must monitor the Partner institution's statements of relationship to ensure conformance with this disclaimer. In addition, neither Member nor Partner institutions may use the SACSCOC logo. Its use is reserved exclusively for the Southern Association of Colleges and Schools Commission on Colleges.

Disclaimer Statement:

*"North Carolina State University is accredited by the Southern Association of Colleges and Schools Commission on Colleges to award **[state degree levels]**. **[Name of Partner institution]** is not accredited by the Commission on Colleges and the accreditation of North Carolina State University does not extend to or include [name of Partner institution] or its students. Further, although North Carolina State University agrees to accept certain course-work from **[Name of Partner institution]** to be applied toward an award from North Carolina State University, that course-work may not be accepted by other colleges or universities in transfer, even if it appears on a transcript from North Carolina State University. The decision to accept course-work in transfer from any institution is made by the institution considering the acceptance of credits and course-work."*

XV. This agreement must follow the stipulations listed below to be in compliance with N.C. State and SACS policies:

☒ The SACSCOC disclaimer is included in this agreement and will be included in any marketing for this dual degree arrangement.
☒ This agreement requires at least 25% of the credits for an Undergraduate program and 50% for a Graduate program be awarded by N.C. State. Enter text
☒ The SACSCOC logo does not appear on this agreement and will not be used by the N.C. State or the Partner institution.
☒ The Partner institution will provide timely access to their materials, physical site(s), and personnel in conjunction with accreditation reviews, if requested.
☒ This agreement will be reviewed in 5 years from the date of final signature.

The signing of this agreement and any supporting documentation assures compliance with the requirements of this Memorandum of Agreement. Any changes will require approval by the signatories and other approval bodies as applicable.

N.C. STATE UNIVERSITY
UNDERGRADUATE COURSE ACTION FORM
Effective September 2008

NOTE: Click shaded fields to type data and click on boxes to check.

DEPARTMENT/PROGRAM	BIOMANUFACTURING TRAINING AND EDUCATION CENTER
COURSE PREFIX/NUMBER	BEC 441 541
PREVIOUS PREFIX/NUMBER	
COURSE TITLE	Expression Systems in Biomanufacturing II
ABBREVIATED TITLE	EXP SYS BIOMANUFAC II
SCHEDULING	Fall ☐ Spring ☒ Summer ☐ Every Year ☒ Alt. Year Odd ☐ Alt. Year Even ☐ Other ☐
COURSE DELIVERY CHECK ALL THAT APPLY	ON CAMPUS ☒ DISTANCE EDUCATION ☐ ONLINE ☐ REMOTE LOCATION ☐
COURSE CREDIT/GRADING	CREDIT HOURS 3 — GRADING ABCDF ☒ S/U ☐
CONTACT HOURS *See contact/credit hour guidelines for detail.*	LECTURE 1 SEMINAR LABORATORY 5 PROBLEM STUDIO INDEPENDENT STUDY RESEARCH INTERNSHIP PRACTICUM FIELD WORK
S COURSE REPEATABLE FOR CREDIT?	No — # REPEATS ALLOWED
INSTRUCTOR(S) (NAME/RANK)	GISELE CANDIA PASSADOR-GURGEL, TEACHING ASSISTANT PROFESSOR DUAL APPOINTMENT? ☐

ANTICIPATED ENROLLMENT	Per semester 20 Per section 20 Will multiple sections be offered? Yes ☐ No ☒
PREREQUISITE(S)	BEC440 OR BIT410
COURSE(S) TO BE COMPLETED PRIOR TO ENROLLING	ENFORCE PRE-REQUISITE CHECKING? YES
CO-REQUISITE(S)	
COURSE(S) TO BE TAKEN CONCURRENTLY WITH THIS COURSE	ENFORCE CO-REQUISITE CHECKING?
PRE/CO-REQUISITE FOR...	
RESTRICTIVE STATEMENT EX: MA AND AMA MAJORS ONLY)	
COURSE IS REQUIRED FOR:	
COURSE IS AN ELECTIVE FOR:	MINOR IN BIOMANUFACTURING
PROPOSED EFFECTIVE DATE 01/01/2014	APPROVED EFFECTIVE DATE — COURSE REVIEW DUE

CATALOG DESCRIPTION: (INCLUDE ANY RESTRICTIVE, TRANSPORTATION, OR FEE STATEMENTS) (100 WORD LIMIT)

ntroduction to insect and mammalian cell expression systems, their advantages and disadvantages. Advanced techniques in DNA cloning, cell transformation and optimization of protein expression. Selection, archiving and characterization of production line. The lab portion of the course provides students with practical experience in DNA cloning and protein expression techniques in insect and mammalian cell expression systems.

TYPE OF PROPOSAL

NEW COURSE	☒
DROP COURSE	☐
REVISE COURSE	☐
REVISION IN:	
CONTENT	☐
PREFIX/NUMBER	☐
TITLE	☐
ABBREVIATED TITLE	☐
CREDIT HOURS	☐
CONTACT HOURS	☐
GRADING METHOD	☐
SCHEDULING	☐
PRE/CO-REQUISITES	☐
RESTRICTIVE STATEMENT	☐
CATALOG DESCRIPTION	☐
LEARNING OUTCOMES	☐
GEP LEARNING OUTCOMES ONLY	☐
DUAL-LEVEL COURSE	☒
GEP COURSE	☐
CHECK APPLICABLE CATEGORY BELOW:	
HUMANITIES	☐
SOCIAL SCIENCES	☐
MATHEMATICAL SCIENCES	☐
NATURAL SCIENCES	☐
INTERDISCIPLINARY PERSPECTIVES	☐
VISUAL & PERFORMING ARTS	☐
PE/HEALTHY LIVING	☐
GLOBAL KNOWLEDGE CO-REQ	☐
U.S. DIVERSITY CO-REQ	☐
THEMATIC TRACK	☐

DOCUMENTATION AS REQUIRED

(CHECK ALL THAT APPLY)

COURSE JUSTIFICATION	☒
PROPOSED REVISION(S) WITH REASONS	☐
ENROLLMENT LAST 5 YEARS	☒
NEW RESOURCES STATEMENT	☒
CONSULTATION WITH DEPARTMENT(S) PROVIDED	☒
SYLLABUS (OLD AND NEW)	☒
GEP CATEGORY OBJECTIVES	☐
GEP STUDENT LEARNING OUTCOMES	☐
MEANS OF ASSESSING GEP OUTCOMES	☐

SIGNATURE PAGE ATTACHED

FOR COURSE ACTION FORM INSTRUCTIONS SEE
HTTP://WWW.NCSU.EDU/UAP/ACADEMIC-STANDARDS/COURSES/CRSINST.HTML

SIGNATURE PAGE

COURSE ACTION FOR BEC441

RECOMMENDED BY:

HEAD, DEPARTMENT/PROGRAM — DATE 4-11-2014

ENDORSED BY:

CHAIR, COLLEGE COURSES & CURRICULA COMMITTEE — DATE 10 Sept 14

COLLEGE DEAN — DATE 9/10/14

APPROVED BY:

CHAIR, UNIVERSITY COURSES & CURRICULA COMMITTEE — DATE

CHAIR, COUNCIL ON UNDERGRADUATE EDUCATION — DATE

DEAN OF UNDERGRADUATE ACADEMIC PROGRAMS — DATE

APPROVED EFFECTIVE DATE _____

A. Course Justification

Bioprocessing is a broad term encompassing the research, development, manufacturing, and commercialization of products prepared from or used by biological systems, including food, feed, pharmaceutical, and cosmetics. Choice of an appropriate expression system is a key element of most biomanufacturing processes, so it is critical that professionals in this industry have a good understanding of the basic techniques and practices used to generate, select and optimize those systems.

Lectures and labs will focus on two of the most commonly used expression systems in the biopharmaceutical industry: insect and mammalian cell expression. Advanced DNA manipulation and protein expression techniques as well as important regulatory components for optimal expression will be reviewed and considerations for selecting a suitable production line will be presented. By the end of the module, the student will be able to understand fundamentals of insect and mammalian cell expression systems and will be aware of the techniques involved in creating and selecting the appropriate production line as well as the parameters affecting expression and yield.

B. Enrollment for the Last Five Years

BEC 441 541 will be taught for the first time during the 2015 Spring semester with a maximum enrollment of 20 students. Taught as BEC 495-002 in Spring 2014.

C. Resources Statement

Continuing funding for operations of the Biomanufacturing Training and Education Center (BTEC), including salary support, is provided on a line-item basis by the North Carolina Legislature. Furthermore, the BTEC provides salary support for Dr. Gisele Passador-Gurgel, the primary instructor for BEC 441 541 and a teaching assistant professor with BTEC.

D. Consultation with other Departments

Dr. Susan Carson, the Biotechnology Program Academic Coordinator, was asked to review the draft course action form for BEC 441 541 and provided the following comment:

"I don't have as much of an issue with BEC 441 since it is not directly duplicating courses we teach."

E. Syllabus

See following pages for proposed syllabus.

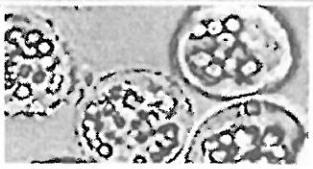
Biomanufacturing Training and Education Center

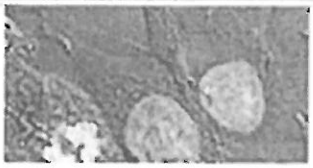
Course information for

Expression Systems in Biomanufacturing II

Course #	**BEC 441 541**
Instructor	Dr. Gisele C. Passador-Gurgel 850 Oval Drive North Carolina State University Raleigh, NC 27695-7928 Phone: 919-515-0222 Fax: 919-513-8235 email: gisele_gurgel@ncsu.edu
Prerequisites	BEC440/540 or BIT410/510
Credit Hours	3
Class Hours	Lectures: Monday and Thursday, 18:00-18:30; Laboratory: Monday and Thursday, 18:30-21:00
Office Hours	Tuesday, 15:30-16:30
GEP Status	None
Course Website	http://moodle.ncsu.edu
Delivery Format	This is a full-semester class. Students are required to attend weekly lectures and laboratories during the semester.
Course Description	Introduction to insect and mammalian cell expression systems, their advantages and disadvantages. Advanced techniques in DNA cloning, cell transformation and optimization of protein expression. Selection, archiving and characterization of production line. The lab portion of the course provides students with practical experience in DNA cloning and protein expression techniques in insect and mammalian cell expression systems.
Technology Requirements	In order to complete the module, all students will be required to have access to an active internet connection. If you do not have Adobe Acrobat Reader installed on your computer, you will need to go to the following web site and follow the instructions to download a free version. http://www.ncsu.edu/it/essentials/software-site/available-software/freq_used.php
Text Requirements	All required reading material is contained within the module or is available through a World Wide Web link provided within the module content. At present, all laboratory reading materials will be provided.
Learning Outcomes	By the end of this course, students should be able to: • explain fundamentals of insect and mammalian cell expression systems; • identify advanced DNA manipulation processes used in the biomanufacturing industry; • demonstrate laboratory and molecular biology techniques using insect and mammalian cell expression systems; and • evaluate results of laboratory experiments as well as identify the steps involved in creation and selection of a production line. In addition to the above learning outcomes, graduate students will be able to: • identify possible solutions for problems faced during experimental procedures; and • create comprehensive experimental designs such as a grant proposal to produce a protein of interest in insect and mammalian expression systems.
Lecture Outlines by Topical Areas	1. Course overview, syllabus, grading policy, course website 2. Overview of antibody, antibody fragments and glycosylated proteins 3. Review of basic molecular biology techniques: part I 4. Review of basic molecular biology techniques: part II 5. Introduction to insect cells expression system: part I 6. Introduction to insect cells expression system: part II 7. Insect cells culture techniques

	8. Gateway Cloning Technology 9. Baculovirus Expression Vectors 10. Introduction to mammalian cells expression system: part I 11. Introduction to mammalian cells expression system: part II 12. Mammalian cells culture techniques 13. Transient x stable expression in mammalian cells 14. Scaling up for large scale production in mammalian cell cultures **15. Final Exam. Laboratory notebook report # 3.**
Laboratory Topical Areas	1. Lab safety. Lab notebook instructions and partner selection. Experimental diagram flow. Overview of insect cells experiments. Initiation of insect cell adherent cultures, subculturing and maintenance. Transformation of DH10Bac competent *E.coli* with recombinant plasmid. 2. Initiation of insect cell suspension cultures. Screening *E. coli* colonies for recombinant bacmid DNA. Preparation of recombinant bacmid DNA. 3. **Quiz #1.** Transfection of insect cell cultures with recombinant bacmid. Preparation of insect cells frozen stocks. 4. Isolation of P1 viral stock/P2 infection in adherent culture. Infection with P2 viral stock in suspension culture. 5. **Laboratory notebook report #1.** Preparation of insect cell lysates from suspension cultures. SDS/PAGE analysis. 6. **Quiz # 2.** Purification of recombinant protein using IMAC. 7. SDS-PAGE analysis of purified recombinant protein. Western blot transference and labeling. 8. Measuring activity with ELISA and protein yield with Bradford assay. 9. Overview of mammalian cells experiments. LR recombination reaction between the entry clone and the destination vector to generate an expression clone. Transformation of *E. coli* competent cells and selection for ampicillin-resistant expression clones. 10. **Quiz # 3.** Re-streak selected colonies to test for false positives. Plasmid preparation from selected colonies. PCR amplification to confirm presence of the gene. DNA gel electrophoresis of purified plasmids. 11. **Laboratory notebook report # 2.** Initiation of mammalian cell suspension cultures, subculturing and maintenance. 12. Transfection of mammalian cells with recombinant plasmid. 13. Preparation of transfected mammalian cell lysates. SDS-PAGE analysis of crude lysates for the recombinant protein expression. 14. **Quiz # 4.** Purification of recombinant protein using IMAC. SDS-PAGE analysis of purified recombinant protein. Western blot of crude lysates and purified recombinant protein. 15. **Written paper (BEC 541 students only).** Measurement of recombinant protein activity by ELISA and protein concentration and yield with Lowry assay.
Course Grading Structure	1. Four quizzes: 40% for undergraduate students and 30% for graduate students 2. Skills demonstrations (10%) 3. Three lab notebook reports (30%) 4. Final Exam (20%) 5. Written paper for graduate students only (10%) Students enrolled in the course on a credit-only basis (S/U) will be required to attend all lectures, to complete all laboratory assignments, submit written laboratory report, but will not be required to take the final exam. To earn a CR grade, the overall score must be at least 69.0. In order to earn a grade of AU, students enrolled in the class as an audit must attend all lectures and complete all laboratory assignments.
Grading Scale	A+ = 97.0-100%





A	=	92.0-96.9%
A-	=	89.0-91.9%
B+	=	86.0-88.9%
B	=	82.0-85.9%
B-	=	79.0-81.9 %
C+	=	76.0-78.9%
C	=	72.0-75.9%
C-	=	69.0-71.9%
D+	=	66.0-68.9%
D	=	62.0-65.9%
D-	=	59.0-61.9%
F	=	< 59.0%

Late Assignments	When not otherwise addressed through an excused absence any late assignment will be reduced in grade by 30%.
Incomplete Grades	Incomplete as a course grade will be awarded only for work not completed during the course due to conditions deemed by the instructor to be beyond the reasonable control of the student. For undergraduate students, unless an extended deadline is authorized by the instructor or department, an unfinished incomplete grade will automatically change to an F after either (a) the end of the next regular semester in which the student is enrolled (not including summer sessions), or (b) the end of 12 months if the student is not enrolled, whichever is shorter. Incompletes that change to F will count as an attempted course on transcripts. The University policy on incomplete grades is located at http://www.ncsu.edu/policies/academic_affairs/grades_undergrad/REG02.50.3.php For graduate students, if an extended deadline is not authorized by the Graduate School, an unfinished incomplete grade will automatically change to an F after either (a) the end of the next regular semester in which the student is enrolled (not including summer sessions) or (b) by the end of 12 months if the student is not enrolled, whichever is shorter. Incompletes that change to F will count as an attempted course on transcripts. The burden of fulfilling an incomplete grade is the responsibility of the student. The University policy on incomplete grades is located at http://www.ncsu.edu/policies/academic_affairs/grades_undergrad/REG02.50.3.php Additional information relative to incomplete grades for graduate students can be found in the Graduate Administrative Handbook in Section 3.18.F at: http://www.fis.ncsu.edu/grad_publicns/handbook/ .
Policy on Late Assignments and Incomplete Grades	Assignments are due on or before the time and date indicated on the assignments. Due dates can be extended for students with valid reasons as defined by the NCSU Attendance policy at: www.ncsu.edu/policies/academic_affairs/courses_undergrad/REG02.20.3.php. In cases where the conflict can be anticipated, prior arrangements must be made with the instructor to receive an extension. In cases of illness or family emergency, the student may be required to present documentation or other proof to receive an extension. Late assignments without a valid excuse will not be accepted and will receive a score of zero. The university policy regarding incomplete grades (IN) applies to this course. See http://ncsu.edu/policies/academic_affairs/grades_undergrad/REG02.50.3.php for instructor's policy on IN grades.
Academic Integrity Statement	It is expected that each student will complete his/her own homework, quizzes, and exams with academic integrity. Students shall follow the *NCSU Code of Student Conduct (http://www.ncsu.edu/policies/student_services/student_discipline/POL11.35.1.php)* In addition, your signature on any test or assignment means that you neither gave nor

	received unauthorized aid. In other words, your signature on to-be-graded work in this course communicates an understanding of, and adherence to, the University Honor Pledge:"I have neither given nor received unauthorized aid on this test or assignment."
Attendance Policy	Students are expected to attend class and attendance will be taken. If there is a need to miss class, notify the instructor prior to the class. It is the student's responsibility to obtain assignments and information for any missed classes. For NCSU attendance regulations, refer to the academic policy and regulations website at: http://www.ncsu.edu/policies/academic_affairs/courses_undergrad/REG02.20.3.php Attendance at **ALL** laboratories is mandatory and a single unexcused absence from lab will result in failure of the course. Each unexcused lecture absence will result in a reduction of 10 points in the final grade. When excuses are accepted student must complete all missed coursework before the end of next academic semester. However, instructor strongly encourages students to complete missed assignment before the final exams of actual course semester.
Laboratory Safety	Each student is expected to observe proper laboratory procedures as outlined in the class instructions for each laboratory period and in the Lab Safety Plan to be presented at the first laboratory meeting.
Students with Disability Policy	Reasonable accommodations will be made for students with verifiable disabilities. In order to take advantage of available accommodations, students must register with Disability Services for Students (http://www.ncsu.edu/dso/) at 1900 Student Health Center, Campus Box 7509, 515-7653. For more information on NC State's policy on working with students with disabilities, please see the Academic Accommodations for Students with Disabilities Regulation at (http://www.ncsu.edu/policies/academic_affairs/courses_undergrad/REG02.20.1.php)
Anti-Discrimination Statement	NC State University provides equality of opportunity in education and employment for all students and employees. Accordingly, NC State affirms its commitment to maintain a work environment for all employees and an academic environment for all students that is free from all forms of discrimination. Discrimination based on race, color, religion, creed, sex, national origin, age, disability, veteran status, or sexual orientation is a violation of state and federal law and/or NC State University policy and will not be tolerated. Harassment of any person (either in the form of quid pro quo or creation of a hostile environment) based on race, color, religion, creed, sex, national origin, age, disability, veteran status, or sexual orientation also is a violation of state and federal law and/or NC State University policy and will not be tolerated. Retaliation against any person who complains about discrimination is also prohibited. NC State's policies and regulations covering discrimination, harassment, and retaliation may be accessed at http://www.ncsu.edu/policies/campus_environ or http://www.ncsu.edu/equal_op . Any person who feels that he or she has been the subject of prohibited discrimination, harassment, or retaliation should contact the Office for Equal Opportunity (OEO) at 515-3148."

N.C. STATE UNIVERSITY
UNDERGRADUATE COURSE ACTION FORM
Effective September 2008

DEPARTMENT/PROGRAM	MATERIALS SCIENCE AND ENGINEERING
COURSE PREFIX/NUMBER	MSE 423
PREVIOUS PREFIX/NUMBER	MSE 423
COURSE TITLE	Introduction to Materials Engineering Design
ABBREVIATED TITLE	INTRO TO MATERIALS ENG DESIGN
SCHEDULING	Fall ☒ Spring ☐ Summer ☐ Every year ☒ Alt. Year Odd ☐ Alt. Year Even ☐ Other ☐
COURSE DELIVERY (check all that apply)	On Campus ☒ Distance Education ☐ Online ☐ Remote Location ☐
COURSE CREDIT/GRADING	Credit Hours 1 Grading ABCDF ☒ S/U ☐
CONTACT HOURS	Lecture 1 Seminar ____ Laboratory ____ Problem 1 Studio ____ Independent Study ____ Research ____ Internship ____ Practicum ____ Field Work ____
IS COURSE REPEATABLE FOR CREDIT?	No # of repeats allowed: ____
INSTRUCTOR(S)	Name/Rank J. Michael Rigsbee Dual Appointment? No
ANTICIPATED ENROLLMENT	Per semester 30 Per section 30 Will multiple sections be offered? No
PRE-REQUISITE(S) Courses(s) to be completed prior to enrolling	Senior standing in MSE Enforce pre-requisite checking? Yes
CO-REQUISITE(S) Courses(s) to be taken concurrently with this course	Enforce co-requisite checking?
PRE-REQUISITE FOR:	MSE 470
RESTRICTIVE STATEMENT	
COURSE IS REQUIRED FOR:	MSE
COURSE IS AN ELECTIVE FOR:	
PROPOSED EFFECTIVE DATE January 1, 2015	**APPROVED EFFECTIVE DATE** **COURSE REVIEW DATE**

CATALOG DESCRIPTION: (Include restrictive, transportation or fee statements. 100 word limit.)

Materials selection in engineering design involving lecture, cooperative and problem-based learning techniques. Course stresses creative thinking, problem solving methodology, life-long learning, interdependence of design with analysis and evaluation, teamwork and sharpening of oral and written communication skills. Real industrial problems are introduced which are analyzed by student teams. Classroom lectures end at mid-semester. In the second half of the semester, students work in teams to develop a proposal for solving an assigned industrial problem. This proposal is submitted to the industrial sponsors at the end of the semester. The proposal defines future work to be conducted under MSE 470 in the following spring semester.

TYPE OF PROPOSAL	
New Course	☐
Drop Course	☐
REVISE COURSE	☒
Revision in:	
Content	☒
Prefix/Number	☐
Title	☐
Abbreviated Title	☐
Credit Hours	☒
Contact Hours	☒
Grading Method	☐
Schedule	☐
Pre/Co-requisites	☐
Restrictive Statement	☐
Catalog Description	☐
Learning Outcomes	☒
GEP LEARNING OUTCOMES ONLY	☐
DUAL-LEVEL COURSE	☐
GEP COURSE	☐
(check applicable category below)	
Humanities	☐
Social Sciences	☐
Mathematical Sciences	☐
Natural Science	☐
Interdisciplinary Perspectives	☐
Visual & Performing Arts	☐
PE/Healthy Living	☐
Global Knowledge Co-requisite	☐
U.S. Diversity Co-requisite	☐
Thematic Track	☐

DOCUMENTATION AS REQUIRED (check all that apply)	
Course Justification	☒
Proposed Revisions with Reasons	☒
Enrollment Last 5 Years	☒
New Resources Statement	☒
Consultation with Dept(s) Provided	☒
Syllabus (Old and New)	☒
GEP Category Objectives	☐
GEP Student Learning Outcomes	☐
Means of Assessing GEP Outcomes	☐

SIGNATURE PAGE ATTACHED

For course action form instructions, see http://www.ncsu.edu/uap/academic-standards/courses/crsinstr.html

SIGNATURE PAGE

COURSE ACTION FOR **MSE 423**

RECOMMENDED BY:

HEAD, DEPARTMENT/PROGRAM — DATE 9-9-14

ENDORSED BY:

CHAIR, COLLEGE COURSES & CURRICULA COMMITTEE — DATE 17 Sept 14

COLLEGE DEAN — DATE 9/18/14

APPROVED BY:

CHAIR, UNIVERSITY COURSES & CURRICULA COMMITTEE — DATE

CHAIR, COUNCIL ON UNDERGRADUATE EDUCATION — DATE

DEAN, DIVISION OF ACADEMIC AND STUDENT AFFAIRS (DASA) — DATE

APPROVED EFFECTIVE DATE _____

MSE 423

Introduction to Materials Engineering Design

Supporting documentation

Course justification

The capstone senior design experience is mandated by ABET and provides the necessary bridge between concepts learned in the classroom and practical application of these concepts in an industrial setting. In MSE, this experience is a sequence of two courses: MSE 423 (fall) and MSE 470 (spring). MSE 423 introduces concepts in design-based materials selection, team-based problem-solving methodology and creative thinking skills. By the latter third of the fall semester, teams of three to four students are assembled and each team is assigned an individual, industry-sponsored, real-world materials science and engineering problem. Each team has a MSE faculty advisor and an industrial advisor. With the guidance of these two advisors, each team prepares a written proposal for solving their problem. This proposal is presented orally by each team at the end of the fall semester.

The actual work on the problem is carried out mainly in the second semester of the design course sequence. During the second semester several intermediate written and oral status reports are presented. At the end of the second semester written and oral final reports are presented to a panel of judges and industry sponsors.

Proposed revisions with reasons

In content and credit hours: The MSE external advisory board has recommended that we include more topics in statistics in our undergraduate curriculum. We have tried to implement this by devoting several lectures in MSE 423 to statistical topics which culminates in a small student project. This limited coverage has been inadequate and we believe a full course in statistics (ST 370) should be required for all MSE undergraduates. Removing the statistics lectures and project from MSE 423 reduces the work load to a level where it is appropriate to reduce the number of credit hours from 2 to 1.

In catalog description and student learning outcomes: These have been changed to be consistent with the change in content and credit hours.

Course format

This course is scheduled to meet twice per week in a 75-minute time slot, which provides a total of 28 time slots for the semester. Ten of these slots are used for lectures and other organized class activities, which amounts to 1 credit hour of lecture. Another ten time slots are designated as Problem Sessions. These are spread throughout the semester and provide a common meeting time for the student teams to use as needed to work on class projects and their final design project proposals. No new course material is presented in the Problem Session time. The remaining eight time slots are available to the student teams if needed, but their use is optional. The final project presentations are scheduled during the final exam time slot. Details are provided in the Proposed Course schedule.

Enrollment for last 5 years

Year	2014	2013	2012	2011	2010
Enrollment	29	33	23	25	14

Consultation with other departments
This course is intended for MSE majors only and does not impact other departments.

Resource statement
No new resources are needed to offer this course.

New catalog description:
Materials selection in engineering design involving lecture, cooperative and problem-based learning techniques. Course stresses creative thinking, problem solving methodology, life-long learning, interdependence of design with analysis and evaluation, teamwork and sharpening of oral and written communication skills. Real industrial problems are introduced which are analyzed by student teams. Classroom lectures end at mid-semester. In the second half of the semester, students work in teams to develop a proposal for solving an assigned industrial problem. This proposal is submitted to the industrial sponsors at the end of the semester. The proposal defines future work to be conducted under MSE 470 in the following Spring semester.

Attachments
- Page 3: Proposed course syllabus (new)
- Page 9: Current course syllabus (old)

MSE 423 Proposed Course Syllabus

MSE 423 – Introduction to Materials Engineering Design

Section 001

FALL 2015

1 Credit Hour

Course Description

This course covers materials selection in engineering design and involves lecture, cooperative and problem based learning techniques. The course stresses creative thinking, problem solving methodology, interdependence of design with analysis and evaluation, teamwork and sharpening of communication skills. Real industrial problems, with each team addressing a unique industrial problem, are introduced in the second half of the course. Proposals submitted to industrial sponsors define work to be done in the spring term under MSE 470.

Learning Outcomes

Students completing this course should be able to:

- Describe systematically the design process
- Apply design-based computational methods for materials selection
- Conduct literature searches
- Work in teams
- Write effective technical reports
- Make effective technical oral presentations
- Produce a team project proposal

Course Structure

Over the semester, this course will average one 75-minute class period per week. About 30% of these periods will be used for lectures, 35% for team project meetings, 15% for team oral presentations and 20% for project proposal presentations by company representatives. Written and oral final project proposals will be presented by student teams at the end of the semester.

Instructors

James Michael Rigsbee (mrigsbee) - *Instructor*
Email: mrigsbee@ncsu.edu
Web Page: NA
Phone: 919-515-3272
Fax: NA
Office Location: 3014 Engineering Building I
Office Hours: TBD

Course Meetings

Lecture

Days: TH
Time: 3:50pm - 5:05pm
Campus: Centennial
Location: TBD
This meeting is required.

Course Materials

Textbooks

None.

Expenses

None.

Materials

CES 2012 EDUPACK Software for design-based materials selection. - 0
This material is required.

Requisites and Restrictions

Prerequisites

Senior standing in Materials Science and Engineering

Co-requisites

None.

Restrictions

None.

General Education Program (GEP) Information

GEP Category

This course does not fulfill a General Education Program category.

GEP Co-requisites

This course does not fulfill a General Education Program co-requisite.

Transportation

Students will be required to provide their own transportation for this class. Non-scheduled class time for field trips or out-of-class activities is NOT required for this class.

Safety & Risk Assumptions

Students will need to travel, probably multiple times, to consult or work on-site with their industrial sponsors. Additionally, for some projects students will perform general materials-oriented lab experiments.

Grading

Grade Components

Component	Weight	Details
Materials Selection Team Project		This is a team-based course. Two separate team-based projects that will be accomplished during the semester.
Oral Presentation	**20%**	The first (where teams are randomly organized by the course instructor) is a broad materials selection project with a life-long learning component. This lasts about 4 weeks and each team gives an oral presentation to the class and submits a written report to the instructor. The oral and written components will be evaluated separately. Also, there will be class and peer (intra-team) evaluations.
Written Report	**20%**	
Major Project Team Proposal		The second project is the "major" project that will continue through the second semester of the senior design sequence (MSE 470). Teams are assembled based on student interest (students rank their interest for the projects) and balancing academic strengths. The oral and written components will be evaluated separately. Grading will include input from academic and industrial advisors plus peer (intra-team) evaluations.
Oral Presentation	**30%**	
Written Report	**30%**	

Letter Grades

This Course uses Standard NCSU Letter Grading:

97 ≤ **A+** ≤ 100
93 ≤ **A** < 97
90 ≤ **A-** < 93
87 ≤ **B+** < 90
83 ≤ **B** < 87
80 ≤ **B-** < 83
77 ≤ **C+** < 80
73 ≤ **C** < 77
70 ≤ **C-** < 73
67 ≤ **D+** < 70
63 ≤ **D** < 67
60 ≤ **D-** < 63
0 ≤ **F** < 60

Requirements for Credit-Only (S/U) Grading

In order to receive a grade of S, students are required to complete all assignments, and earn a grade of C- or better. Conversion from letter grading to credit only (S/U) grading is subject to university deadlines. Refer to the Registration and Records calendar for deadlines related to grading. For more details refer to http://policies.ncsu.edu/regulation/reg-02-20-15.

Requirements for Auditors (AU)

Information about and requirements for auditing a course can be found at http://policies.ncsu.edu/regulation/reg-02-20-04.

Auditing is not allowed in this course.

Policies on Incomplete Grades

If an extended deadline is not authorized by the instructor or department, an unfinished incomplete grade will automatically change to an F after either (a) the end of the next regular semester in which the student is enrolled (not including summer sessions), or (b) the end of 12 months if the student is not enrolled, whichever is shorter. Incompletes that change to F will count as an attempted course on transcripts. The burden of fulfilling an incomplete grade is the responsibility of the student. The university policy on incomplete grades is located at http://policies.ncsu.edu/regulation/reg-02-50-3.

Late Assignments

Late assignments, without prior instructor consent, will be reduced by a letter grade for each day they are late.

Attendance Policy

Attendance Policy

Attendance is required. For complete attendance and excused absence policies, please see http://policies.ncsu.edu/regulation/reg-02-20-03

Absences Policy

Excused absences are accepted per the university attendance regulation.

Makeup Work Policy

There is no provision for makeup work.

Additional Excuses Policy

None.

Academic Integrity

Academic Integrity

Students are required to comply with the university policy on academic integrity found in the Code of Student Conduct found at http://policies.ncsu.edu/policy/pol-11-35-01

Academic Honesty

See http://policies.ncsu.edu/policy/pol-11-35-01 for a detailed explanation of academic honesty.

Honor Pledge

Your signature on any test or assignment indicates "I have neither given nor received unauthorized aid on this test or assignment."

Electronically-Hosted Course Components

There are no electronically-hosted components for this course.

Accommodations for Disabilities

Reasonable accommodations will be made for students with verifiable disabilities. In order to take advantage of available accommodations, student must register with the Disability Services Office (http://www.ncsu.edu/dso), 919-515-7653. For more information on NC State's policy on working with students with disabilities, please see the Academic Accommodations for Students with Disabilities Regulation at http://policies.ncsu.edu/regulation/reg-02-20-01.

Non-Discrimination Policy

NC State University provides equality of opportunity in education and employment for all students and employees. Accordingly, NC State affirms its commitment to maintain a work environment for all employees and an academic environment for all students that is free from all forms of discrimination. Discrimination based on race, color, religion, creed, sex, national origin, age, disability, veteran status, or sexual orientation is a violation of state and federal law and/or NC State University policy and will not be tolerated. Harassment of any person (either in the form of quid pro quo or creation of a hostile environment) based on race, color, religion, creed, sex, national origin, age, disability, veteran status, or sexual orientation also is a violation of state and federal law and/or NC State University policy and will not be tolerated. Retaliation against any person who complains about discrimination is also prohibited. NC State's policies and regulations covering discrimination, harassment, and retaliation may be accessed at http://policies.ncsu.edu/policy/pol-04-25-05 or http://www.ncsu.edu/equal_op/. Any person who feels that he or she has been the subject of prohibited discrimination, harassment, or retaliation should contact the Office for Equal Opportunity (OEO) at 919-515-3148.

Course Schedule (based on a 14-week semester, 28 classes)

Lecture TH 3:50pm - 5:05pm — Week 1

Lecture 1: Course overview and organization. Materials selection projects discussed.

Lecture 2: Computational design-based materials selection.

Lecture TH 3:50pm - 5:05pm — Week 2

Lecture 3: Computational design-based materials selection. Teams assigned for Materials selection projects.

Lecture 4: NCSU Library staff presentation.

Lecture TH 3:50pm - 5:05pm — Week 3

Problem Session 1: Teams meet to work on materials selection project.

Problem Session 2: Teams meet to work on materials selection project.

Lecture TH 3:50pm - 5:05pm — Week 4

Problem Session 3: Teams meet to work on materials selection project.

Problem Session 4: Teams meet to work on materials selection project.

Lecture TH 3:50pm - 5:05pm — Week 5

Lecture 5: Company project presentations.

Lecture 6: Company project presentations

Lecture TH 3:50pm - 5:05pm — Week 6

Lecture 7: Company project presentations.

Lecture 8: Company project presentations

Lecture TH 3:50pm - 5:05pm — Week 7

Lecture 9: Materials selection project team presentations. All written reports are due.

Lecture 10: Materials selection project team presentations.

Lecture TH 3:50pm - 5:05pm — Week 8

Problem Session 5: Teams meet to work on major project planning and proposal.

Class 2: Extra time available for teams to meet if needed.

Lecture TH 3:50pm - 5:05pm — Week 9

Problem Session 6: Teams meet to work on major project planning and proposal.

Class 2: Extra time available for teams to meet if needed.

Lecture TH 3:50pm - 5:05pm — Week 10

Problem Session 7: Teams meet to work on major project planning and proposal.

Class 2: Extra time available for teams to meet if needed.

Lecture TH 3:50pm - 5:05pm — Week 11

Problem Session 8: Teams meet to work on major project planning and proposal.

Class 2: Extra time available for teams to meet if needed.

Lecture TH 3:50pm - 5:05pm — Week 12

Problem Session 9: Teams meet to work on major project planning and proposal.

Class 2: Extra time available for teams to meet if needed.

Lecture TH 3:50pm - 5:05pm — Week 13

Problem Session 10: Teams meet to work on major project planning and proposal.

Class 2: Extra time available for teams to meet if needed.

Lecture TH 3:50pm - 5:05pm — Week 14

Class 1: Extra time available for teams to meet if needed.

Class 2: Extra time available for teams to meet if needed.

Lecture TH 3:50pm - 5:05pm — Week 15

Final exam time slot: Teams present major project proposal. <u>All written reports are due.</u>

MSE 423 Current Course Syllabus

MSE 423 – Introduction to Materials Engineering Design

Section 001

FALL 2013

2 Credit Hours

Course Description

This course covers materials selection in engineering design and involves lecture, cooperative and problem based learning techniques. The course stresses creative thinking, problem solving methodology, interdependence of design with analysis and evaluation, teamwork and sharpening of communication skills. Real industrial problems, with each team addressing a unique industrial problem, are introduced in the second half of the course. Proposals submitted to industrial sponsors define work to be done in the spring term under MSE 470.

Learning Outcomes

Students completing this course should be able to:

- Describe systematically the design process
- Apply design-based computational methods for materials selection
- Describe and apply statistical design of experiments methods
- Conduct literature searches
- Work in teams
- Write an effective technical report
- Make an effective technical oral presentation
- Produce a team project proposal
- Use software-based project management tools

Course Structure

This course will consist of two 75-minute lectures per week. About 60% of these periods will be used for lectures, 20% for team project meetings and 20% for team oral presentations. Written and oral final project proposals will be presented by student teams at the end of the semester.

Instructors

James Michael Rigsbee (mrigsbee) - *Instructor*
Email: mrigsbee@ncsu.edu
Web Page: NA
Phone: 919-515-3272
Fax: NA
Office Location: 3014 Engineering Building I
Office Hours: TBD

Course Meetings

Lecture

Days: TH
Time: 3:50pm - 5:05pm

Campus: Centennial
Location: TBD
This meeting is required.

Course Materials

Textbooks

None.

Expenses

None.

Materials

CES 2012 EDUPACK Software for design-based materials selection. - 0
This material is required.

Requisites and Restrictions

Prerequisites

Senior standing in Materials Science and Engineering

Co-requisites

None.

Restrictions

None.

General Education Program (GEP) Information

GEP Category

This course does not fulfill a General Education Program category.

GEP Co-requisites

This course does not fulfill a General Education Program co-requisite.

Transportation

Students will need to travel, probably multiple times, to consult or work on-site with their industrial sponsors. Students will be required to provide their own transportation for these trips.

Safety & Risk Assumptions

For some projects students will perform general materials-oriented lab experiments. Students will be required to follow established safety procedures that are in place for industrial and academic labs.

Grading

Grade Components

Component	Weight	Details
Team Projects -- Oral and Written Presentations	100%	This is a team-based course. Grading will be done based on oral and written team presentations.

Letter Grades

This Course uses Standard NCSU Letter Grading:

97≤ **A+**≤100
93≤ **A** <97
90≤ **A-** <93
87≤ **B+**<90
83≤ **B** <87
80≤ **B-** <83
77≤ **C+**<80
73≤ **C** <77
70≤ **C-** <73
67≤ **D+**<70
63≤ **D** <67
60≤ **D-** <63
0 ≤ **F** <60

Requirements for Credit-Only (S/U) Grading

In order to receive a grade of S, students are required to take all exams and quizzes, complete all assignments, and earn a grade of C- or better. Conversion from letter grading to credit only (S/U) grading is subject to university deadlines. Refer to the Registration and Records calendar for deadlines related to grading. For more details refer to **http://policies.ncsu.edu/regulation/reg-02-20-15.**

Requirements for Auditors (AU)

Information about and requirements for auditing a course can be found at **http://policies.ncsu.edu/regulation/reg-02-20-04.**

Auditing is not allowed in this course.

Policies on Incomplete Grades

If an extended deadline is not authorized by the instructor or department, an unfinished incomplete grade will automatically change to an F after either (a) the end of the next regular semester in which the student is enrolled (not including summer sessions), or (b) the end of 12 months if the student is not enrolled, whichever is shorter. Incompletes that change to F will count as an attempted course on transcripts. The burden of fulfilling an

incomplete grade is the responsibility of the student. The university policy on incomplete grades is located at **http://policies.ncsu.edu/regulation/reg-02-50-3**.

Late Assignments

Late assignments, without prior instructor consent, will be reduced by a letter grade for each day they are late.

Attendance Policy

For complete attendance and excused absence policies, please see **http://policies.ncsu.edu/regulation/reg-02-20-03**

Attendance Policy

Attendance is required.

Absences Policy

Excused absences are accepted per the university attendance regulation.

Makeup Work Policy

There is no provision for makeup work.

Additional Excuses Policy

None.

Academic Integrity

Academic Integrity

Students are required to comply with the university policy on academic integrity found in the Code of Student Conduct found at **http://policies.ncsu.edu/policy/pol-11-35-01**

Academic Honesty

See **http://policies.ncsu.edu/policy/pol-11-35-01** for a detailed explanation of academic honesty.

Honor Pledge

Your signature on any test or assignment indicates "I have neither given nor received unauthorized aid on this test or assignment."

Electronically-Hosted Course Components

There are no electronically-hosted components for this course.

Accommodations for Disabilities

Reasonable accommodations will be made for students with verifiable disabilities. In order to take advantage of available accommodations, student must register with the Disability Services Office (**http://www.ncsu.edu/dso**), 919-515-7653. For more information on NC State's policy on working with students with disabilities, please see the Academic Accommodations for Students with Disabilities Regulation at **http://policies.ncsu.edu/regulation/reg-02-20-01.**

Non-Discrimination Policy

NC State University provides equality of opportunity in education and employment for all students and employees. Accordingly, NC State affirms its commitment to maintain a work environment for all employees and an academic environment for all students that is free from all forms of discrimination. Discrimination based on race, color, religion, creed, sex, national origin, age, disability, veteran status, or sexual orientation is a violation of state and federal law and/or NC State University policy and will not be tolerated. Harassment of any person (either in the form of quid pro quo or creation of a hostile environment) based on race, color, religion, creed, sex, national origin, age, disability, veteran status, or sexual orientation also is a violation of state and federal law and/or NC State University policy and will not be tolerated. Retaliation against any person who complains about discrimination is also prohibited. NC State's policies and regulations covering discrimination, harassment, and retaliation may be accessed at **http://policies.ncsu.edu/policy/pol-04-25-05** or **http://www.ncsu.edu/equal_op/.** Any person who feels that he or she has been the subject of prohibited discrimination, harassment, or retaliation should contact the Office for Equal Opportunity (OEO) at 919-515-3148.

Course Schedule

NOTE: The course schedule is subject to change.

Lecture TH 3:50pm - 5:05pm — Week 1 — 08/21/2013 - 08/23/2013

One Lecture

Lecture 1: Course overview and organization.

Materials selection projects discussed and teams assigned.

Lecture TH 3:50pm - 5:05pm — Week 2 — 08/26/2013 - 08/30/2013

Two lectures

Lecture 1: Computational design-based materials selection.

Lecture 2: Computational design-based materials selection.

Lecture TH 3:50pm - 5:05pm — Week 3 — 09/02/2013 - 09/06/2013

Two Lectures

Class 1: Computational deisgn-based materials selection

Class 2: Presentation by NCSU Library staff of literature searching.

Lecture TH 3:50pm - 5:05pm — Week 4 — 09/09/2013 - 09/13/2013

Two Classes

Lecture 1: Teams present materials selection team project oral and written reports.

Lecture 2: Teams present materials selection team project oral and written reports.

Lecture TH 3:50pm - 5:05pm — Week 5 — 09/16/2013 - 09/20/2013

Two Lectures

Lecture 1: Statistics-based design of experiments.

Lecture 2: Statistics-based design of experiments.

Lecture TH 3:50pm - 5:05pm — Week 6 — 09/23/2013 - 09/27/2013

Two Lectures

Lecture 1: Statistics-based design of experiments.

Lecture 2: Statistics-based design of experiments.

Assigment of DOE project and teams.

Lecture TH 3:50pm - 5:05pm — Week 7 — 09/30/2013 - 10/04/2013

Two Classes

Class 1: Company project presentations.

Class 2: Company project presentations.

Lecture TH 3:50pm - 5:05pm — Week 8 — 10/07/2013 - 10/11/2013

One Classes

Class 1: Company project presentations.

Lecture TH 3:50pm - 5:05pm — Week 9 — 10/14/2013 - 10/18/2013

Two Classes

Class 1: DOE Team Presentations.

Class 2: DOE Team Presentations.

Lecture TH 3:50pm - 5:05pm — Week 10 — 10/21/2013 - 10/25/2013

Team Meetings

Teams meet with academic advisors to organize projects.

Teams visit sponsoring companies and discuss projects with industrial advisor.

Lecture TH 3:50pm - 5:05pm — Week 11 — 10/28/2013 - 11/01/2013

Team Meetings

Teams meet independently and work on senior design project planning and proposal.

Lecture TH 3:50pm - 5:05pm — Week 12 — 11/04/2013 - 11/08/2013

Team Meetings

Teams meet independently and work on senior design project planning and proposal.

Lecture TH 3:50pm - 5:05pm — Week 13 — 11/11/2013 - 11/15/2013

Team Meetings

Teams meet independently and work on senior design project planning and proposal.

Lecture TH 3:50pm - 5:05pm — Week 14 — 11/18/2013 - 11/22/2013

Team Meetings

Teams meet independently and work on senior design project planning and proposal.

Lecture TH 3:50pm - 5:05pm — Week 15 — 11/25/2013 - 11/29/2013

No organized activities, Thanksgiving break

Lecture TH 3:50pm - 5:05pm — Week 16 — 12/02/2013 - 12/06/2013

Two Classes

Class 1: Team presentations of senior design proposals.

Class 2: Team presentations of senior design proposals.

North Carolina State University is a land-grant university and a constituent institution of the University of North Carolina

College of Engineering
Department of Materials Science and Engineering

NC STATE UNIVERSITY

Campus Box 7907
Raleigh, NC 27695-7907

919.515.2377 (phone)
919.515.7724 (fax)
http://www.mse.ncsu.edu/

September 3, 2014

CURRICULUM REVISION MEMO

To: University Course and Curriculum Committee

From: Dr. C. M. Balik, Chair
Undergraduate Program Committee, Dept. of Materials Science and Engineering

Subject: Revisions to MSE curriculum. **SIS code:** 14MSEBS. **Term date:** Spring '13.

The following revisions are proposed for the current Materials Science & Engineering curriculum. Justification for these changes and other information is provided in the attached documentation.

1. Add ST 370, Probability and Statistics for Engineers, as a required course.
2. Remove CSC 112 or 116 (introductory programming- Fortran or Java) as a required course.
3. Change the number of credit hours in MSE 423, Introduction to Materials Engineering Design, from 2 to 1. A separate Course Action Form is being submitted simultaneously for this purpose.
4. Add PY 206 and PY 209 to the curriculum, and reduce the credit hours for PY 205 and PY 208 from 4 to 3.
5. Remove CSC 200, CH 221 and MSE 350 from the list of approved elective courses.
6. Add MSE 465 and MSE 485 to the list of approved elective courses.
7. Change the prefix for the health and wellness electives from PE to HES.
8. These revisions reduce the minimum number of credit hours required for graduation from 127 to 126.

Proposed effective date: January 1, 2015.

RECOMMENDED BY:

9-9-14

Justin Schwartz, Head, Dept. of Materials Science and Engineering — Date

APPROVED BY:

17 Sept 14

Chair, COE Course & Curriculum Committee — Date

Jerome P. Lavelle

9/18/14

Dean, College of Engineering — Date

Chair, University Course & Curriculum Committee — Date

Chair, Council on Undergraduate Education — Date

Vice Chancellor and Dean for Academic and Student Affairs — Date

CURRICULUM REVISION

Department of Materials Science and Engineering

Supporting documentation

Current degree title: BS in Materials Science and Engineering

Current SIS code: 14MSEBS (14MSE-2136)

Current CIP code: 141801

Program objectives
The MSE program at NCSU prepares their B.S. graduates to achieve the following career and professional goals:

- To apply their knowledge of materials science and engineering to problems and challenges encountered in their professional careers.
- To use modern analytical equipment and methods as needed for materials testing, design, processing, development and research.
- To communicate well orally and in writing, interact professionally and work effectively on multi-disciplinary teams to achieve design and project objectives.
- To engage in lifelong learning in their profession and practice professional and ethical responsibility.

Proposed revisions

1. ST 370, Probability and Statistics for Engineers, is added as a required course and it is removed from the list of approved MSE technical electives. ST 370 will replace the introductory computer programming course, CSC 11x, in the spring semester of the sophomore year. CSC 11x is no longer needed since the programming concepts important for MSE majors are already being covered in MSE 260, Mathematical Methods for Materials Engineers. In addition, the MSE External Advisory Committee has recommended that we add more topics in statistics to our curriculum.
2. MSE 423, Introduction to Materials Engineering Design, is being reduced from 2 to 1 credit hours. The extra credit hour was being used to cover a limited number of topics in statistics, which will now be covered in much greater depth by the addition of ST 370 as a required course in the curriculum. A course action form for revision of MSE 423 is being submitted simultaneously with this curriculum action.
3. The prefix for the health and wellness electives is changed from PE to HES for consistency with the current designation for this department.
4. The PY 205 and PY 208 laboratory components are being updated to reflect the change to separate 1-hour courses as PY 206 and PY 209. Credit hours for PY 205 and 208 are reduced from 4 to 3.
5. CSC 200 is being removed from the list of approved engineering electives.
6. MSE 350 is being removed from the list of approved engineering electives because it is no longer offered by the department.
7. MSE 465 and MSE 485 are being added to the list of approved engineering electives.
8. CH 221 is being removed from the list of approved technical electives because a 1-semester organic chemistry course is already a component of the base curriculum.

9. These revisions reduce the minimum number of credit hours required for graduation from 127 to 126.

Impact of these revisions on students currently in the MSE curriculum

Students currently in the 14MSE2136 curriculum will have the option to switch into the proposed curriculum or stay in their current curriculum. There will be minimal impact on current students in either case. Students desiring to remain in the current curriculum will take the revised version of MSE 423, which has 1 less credit hour, thus they could be 1 hour short of meeting the 127 credit-hour graduation requirement. Many of these students will have extra, non-degree hours that can be used to fulfill this requirement. Those who do not have extra hours will have to an additional 1-credit hour course.

Current students who elect to switch to the new curriculum will be affected primarily by the replacement of CSC 11x with ST 370 (both courses are 3 credit hours). Students who have not yet taken CSC 11x will simply register for ST 370 instead. Students who have already taken CSC 11x will be allowed to use this course as a technical elective, and will also register for ST 370. No additional hours are required for these students.

Attachments **Page**

1. Proposed semester-by-semester display (Format A). Changes in red.

PROPOSED MATERIALS SCIENCE AND ENGINEERING CURRICULUM

FRESHMAN YEAR

Fall Semester		Cr.	Spring Semester		Cr.
CH 101	Chemistry, A Molecular Science[1]	3	CH 201	Chemistry, A Quantitative Science	3
CH 102	General Chemistry Lab.[1]	1	CH 202	Quantitative Chemistry Lab.	1
E 101	Intro. to Engr. & Problem Solving[2]	1	MA 241	Calculus II[1]	4
E 115	Intro. to Computing Environment[2]	1	PY 205	Physics for Engineers & Scientists I[1]	3
ENG 101	Academic Writing and Research[2]	4	PY 206	Physics for Engrs. & Scientists I Lab[1]	1
MA 141	Calculus I[1]	4	HES *'*	Fitness and Wellness Course*	1
EC 205	Economics (or EC 201 or ARE 201)*	3	*** ***	GEP Requirement*	3
		17			16

SOPHOMORE YEAR

Fall Semester		Cr.	Spring Semester		Cr.
MSE 201	Intro Materials Science & Eng[1]	3	MSE 255	Exp. Meth. Struct. Analysis of Matls.	2
ST 370	Prob. and Statistics for Engineers	3	MSE 260	Math. Methods for Materials Engrs.	3
MA 242	Calculus III	4	MSE 270	MSE Seminar	1
PY 208	Physics for Engineers & Scientists II	3	CH 220	Introductory Organic Chemistry	4
PY 209	Physics for Engrs. & Scientists II Lab[1]	1	MA 341	Applied Differential Equations I	3
HES *'*	Physical Ed./Healthy Living Elective*	1	*** ***	GEP Requirement*	3
		15			16

JUNIOR YEAR

Fall Semester		Cr.	Spring Semester		Cr.
MSE 300	Structure of Materials at Nanoscale	3	MSE 355	Elect. Mag. & Opt. Prop. of Materials	3
MSE 301	Intro. to Thermodynamics of Matls.	3	MSE 360	Kinetic Processes in Materials	3
MSE 320	Intro. to Defects in Solids	3	MSE 370	Microstructure of Inorganic Materials	3
MSE 335	Exp. Meth. Analysis of Matls. Prop.	2	MSE 380	Microstructure of Organic Materials	3
*** ***	Technical Elective[3,4,5]	3	*** ***	Engineering Elective	3
*** ***	GEP Requirement*	3			15
		17			

SENIOR YEAR

Fall Semester		Cr.	Spring Semester		Cr.
MSE 420	Mechanical Properties of Materials	3	MSE 470	Mat. Sci. & Eng. Design Project	3
MSE 423	Intro. to Materials Eng. Design	1	MSE 480	Materials Forensics and Degradation	3
ENG 331	Technical Writing (or ENG 333)	3	** ****	Technical Elective[3,4,5]	3
*** ***	MSE Processing Elective[6]	3	*** ***	GEP Requirement	3
*** ***	Technical Elective[3,4,5]	3	*** ***	Ethics Elective (GEP Requirement*)[7]	2-3
*** ***	GEP Requirement*	3			14-15
		16			

Minimum total credit hours required for graduation: 126[I,J,K]

Major/Program requirements and footnotes:

1. Minimum grade of C required.
2. Minimum grade of C- required.
3. Choose from departmental approved list.
4. Only 1 advisor approved MSE 490 (special topics) course may be used to fulfill an engineering or technical elective.
5. Additional engineering and technical electives may be approved by the MSE Director of Undergraduate Programs.

6. Choose a course from the following list: MSE 440, MSE 445, MSE 455, MSE 456 or MSE 460. This elective may be taken in the spring or fall semester by swapping it with a Technical Elective.
7. Ethics course must be chosen from the following list: IDS 201, STS 302, STS 304, STS/PHI 325, PHI 214,PHI 221, or PHI 375.

General Education Program (GEP) requirements and GEP Footnotes:
To complete the requirements for graduation and the General Education Program, the following category credit hours and co-requisites must be satisfied. University approved GEP course lists for each of the following categories can be found at http://www.ncsu.edu/uap/academic-standards/gep/courselists/index.html.

A. **Mathematical Sciences** (6 credit hours – one course with MA or ST prefix)
Fulfilled as part of the Major requirements.
B. **Natural Sciences** (7 credit hours – include one laboratory course or course with a lab)
Fulfilled as part of the Major requirements.
C. **Humanities** (6 credit hours selected from two different disciplines/course prefixes)
Choose from the University approved GEP Humanities course list.
D. **Social Sciences** (6 credit hours selected from two different disciplines/course prefixes)
Choose 3 credits from the University approved GEP Social Sciences course list in a discipline other than Economics. Economics 205 (or EC 201 or ARE 201), taken as part of the Major requirements, satisfies 3 credit hours needed to fulfill the GEP Social Sciences requirement.
E. **Physical Education/Healthy Living** (2 credit hours – at least one 100-level Fitness and Wellness Course)
Choose from the University approved GEP Physical Education/Healthy Living course list.
F. **Additional Breadth** - (3 credit hours to be selected from the following checked University approved GEP course lists)
Choose one course from Humanities, Social Sciences, or Visual & Performing Arts
G. **Interdisciplinary Perspectives** (5-6 credit hours)
Choose from the University approved GEP Interdisciplinary Perspectives course list.
H. **Introduction to Writing** (4 credit hours satisfied by completing ENG 101 with a C- or better)

The following Co-Requisites must be satisfied to complete the General Education Program requirements:

I. **U.S. Diversity** (USD)
Choose from the University approved GEP U.S. Diversity course list or choose a course identified on the approved GEP course lists as meeting the U.S. Diversity (USD) co-requisite.
J. **Global Knowledge** (GK)
Choose from the University approved GEP Global Knowledge course list or choose a course identified on the approved GEP course lists as meeting the Global Knowledge (GK) co-requisite.
K. **Foreign Language proficiency**: Proficiency at the FL_102 level is required for graduation.

Proposed electives for the BS Degree in Materials Science and Engineering

CSC 200, MSE 350, CH 221, and ST 370 have been removed; MSE 465 and MSE 485 have been added

MSE Processing Electives	Engineering Electives[4,5]	Technical Electives[4,5]
MSE 440 Proc. of Metallic Materials	**All MSE Processing Electives**	**All MSE Processing Electives**
MSE 445 Ceramics Processing	MSE (NE) 409 Nuclear Materials	**All Engineering Electives**
MSE 455 Polymer Tech. and Eng.	MSE 465 Intro to Nanomaterials	BCH 451 Principles of Biochem.
MSE 456 Composite Materials	MSE 485 Biomaterials	CH 223 Organic Chemistry
MSE 460 Microelectronic Materials	MSE 490 Special Topics in MSE	CH 315 Quantitative Analysis
	CE 214 or MAE 206 Statics	CH 401 Inorganic Chemistry
	CE 215 or MAE 208 Engr. Dynamics	CH 437 Phys. Chemistry for Engineers
	CE 313 or MAE 314 Solid Mechanics	MA 305 Elementary Linear Algebra
	ECE 331 Intro to Circuits	MA 351 Intro. to Discrete Math. Models
	ISE 311 Engineering Economic Analysis	MA 401 Applied Differential Eqs. II
	MAE 206 Engineering Statics	MA 402 Comp. Math: Models, Meth. Analysis
	MAE 208 Engineering Dynamics	MA 405 Intro. to Lin. Alg. & Matrices
	MAE 314 Solid Mechanics	PY 328 Astrophysics
	NE 202 Radiation Sources Lab (4 hrs)	PY 407 Modern Physics
	TE 205 Analog & Digital Circuits (4 hrs)	PY 411/412 Mechanics I & II
		PY 414/415 Electromagnetism I & II
		PY (MEA) 463 Fluid Physics

2. Current approved semester-by-semester display (Format A).

MATERIALS SCIENCE AND ENGINEERING CURRICULUM
14MSE-2136

FRESHMAN YEAR

Fall Semester		Cr.	Spring Semester		Cr.
CH 101	Chemistry, A Molecular Science[1]	3	CH 201	Chemistry, A Quantitative Science	3
CH 102	General Chemistry Lab.[1]	1	CH 202	Quantitative Chemistry Lab.	1
E 101	Intro. to Engr. & Problem Solving[2]	1	MA 241	Calculus II[1]	4
E 115	Intro. to Computing Environment[2]	1	PY 205	Physics for Engineers & Scientists I[1]	4
ENG 101	Academic Writing and Research[2]	4	PE 10x	Fitness and Wellness Course*	1
MA 141	Calculus I[1]	4	*** ***	GEP Requirement*	3
EC 205	Economics (or EC 201 or ARE 201)*	3			16
		17			

SOPHOMORE YEAR

Fall Semester		Cr.	Spring Semester		Cr.
MSE 201	Structure & Prop. of Engr. Materials[2]	3	MSE 255	Exp. Meth. Struct. Analysis of Matls.	2
CSC 11x	Introduction to Computing	3	MSE 260	Math. Methods for Materials Engrs.	3
MA 242	Calculus III	4	MSE 270	MSE Seminar	1
PY 208	Physics for Engineers & Scientists II	4	CH 220	Introductory Organic Chemistry	4
PE ***	Physical Ed./Healthy Living Elective*	1	MA 341	Applied Differential Equations I	3
		15	*** ***	GEP Requirement*	3
					16

JUNIOR YEAR

Fall Semester		Cr.	Spring Semester		Cr.
MSE 300	Structure of Materials at Nanoscale	3	MSE 355	Elect. Mag. & Opt. Prop. of Materials	3
MSE 301	Intro. to Thermodynamics of Matls.	3	MSE 360	Kinetic Processes in Materials	3
MSE 320	Intro. to Defects in Solids	3	MSE 370	Microstructure of Inorganic Materials	3
MSE 335	Exp. Meth. Analysis of Matls. Prop.	2	MSE 380	Microstructure of Organic Materials	3
*** ***	GEP Requirement*	3	*** ***	Engineering Elective[3,4,5]	3
*** ***	GEP Requirement*	3			15
		17			

SENIOR YEAR

Fall Semester		Cr.	Spring Semester		Cr.
MSE 420	Mechanical Properties of Materials	3	MSE 470	Mat. Sci. & Eng. Design Project	3
MSE 423	Intro. to Materials Eng. Design	2	MSE 480	Materials Forensics and Degradation	3
ENG 331	Technical Writing (or ENG 333)	3	*** ***	Technical Elective[3,4,5]	3
*** ***	MSE processing elective[3,6]	3	*** ***	Technical Elective[3,4,5]	3
*** ***	Technical Elective[3,4,5]	3	*** ***	Ethics Elective (GEP Requirement*)[7]	2-3
*** ***	GEP Requirement*	3			14-15
		17			

Minimum total credit hours required for graduation: 127[I,J,K]

Major/Program requirements and footnotes:

1. Minimum grade of C required.
2. Minimum grade of C- required.
3. Choose from departmental approved list.
4. Only 1 advisor approved MSE 490 (special topics) course may be used to fulfill an engineering or technical elective.

5. Additional engineering and technical electives may be approved by the MSE Director of Undergraduate Programs.
6. Choose a course from the following list: MSE 440, MSE 445, MSE 455, MSE 456 or MSE 460. This elective may be taken in the spring or fall semester by swapping it with a Technical Elective.
7. Ethics course must be chosen from the following list: IDS 201, STS 302, STS 304, STS/PHI 325, PHI 214,PHI 221, or PHI 375.

General Education Program (GEP) requirements and GEP Footnotes:

To complete the requirements for graduation and the General Education Program, the following category credit hours and co-requisites must be satisfied. University approved GEP course lists for each of the following categories can be found at http://www.ncsu.edu/uap/academic-standards/gep/courselists/index.html.

A. **Mathematical Sciences** (6 credit hours – one course with MA or ST prefix)
Fulfilled as part of the Major requirements.

B. **Natural Sciences** (7 credit hours – include one laboratory course or course with a lab)
Fulfilled as part of the Major requirements.

C. **Humanities** (6 credit hours selected from two different disciplines/course prefixes)
Choose from the University approved GEP Humanities course list .

D. **Social Sciences** (6 credit hours selected from two different disciplines/course prefixes)
Choose 3 credits from the University approved GEP Social Sciences course list in a discipline other than Economics. Economics 205 (or EC 201 or ARE 201), taken as part of the Major requirements, satisfies 3 credit hours needed to fulfill the GEP Social Sciences requirement.

E. **Physical Education/Healthy Living** (2 credit hours – at least one 100-level Fitness and Wellness Course)
Choose from the University approved GEP Physical Education/Healthy Living course list.

F. **Additional Breadth** - (3 credit hours to be selected from the following checked University approved GEP course lists)
Choose one course from Humanities, Social Sciences, or Visual & Performing Arts

G. **Interdisciplinary Perspectives** (5-6 credit hours)
Choose from the University approved GEP Interdisciplinary Perspectives course list.

H. **Introduction to Writing** (4 credit hours satisfied by completing ENG 101 with a C- or better)

The following Co-Requisites must be satisfied to complete the General Education Program requirements:

I. **U.S. Diversity** (USD)
Choose from the University approved GEP U.S. Diversity course list or choose a course identified on the approved GEP course lists as meeting the U.S. Diversity (USD) co-requisite.

J. **Global Knowledge** (GK)
Choose from the University approved GEP Global Knowledge course list or choose a course identified on the approved GEP course lists as meeting the Global Knowledge (GK) co-requisite.

K. **Foreign Language proficiency**: Proficiency at the FL_102 level is required for graduation.

Approved electives for the BS degree in Materials Science and Engineering

MSE Processing Electives	Engineering Electives[4,5]	Technical Electives[4,5]
MSE 440 Proc. of Metallic Materials	**All MSE Processing Electives**	**All MSE Processing Electives**
MSE 445 Ceramics Processing	MSE 350 Mechanics of Materials	**All Engineering Electives**
MSE 455 Polymer Tech. and Eng.	MSE (NE) 409 Nuclear Materials	BCH 451 Principles of Biochem.
MSE 456 Composite Materials	MSE 490 Special Topics in MSE	CH 223 Organic Chemistry
MSE 460 Microelectronic Materials	CE 214 or MAE 206 Statics	CH 315 Quantitative Analysis
	CE 215 or MAE 208 Engr. Dynamics	CH 401 Inorganic Chemistry
	CE 313 or MAE 314 Solid Mechanics	CH 437 Phys. Chemistry for Engineers
	CSC 200 Intro to Computers and Their Uses	MA 305 Elementary Linear Algebra
	ECE 331 Intro to Circuits	MA 351 Intro. to Discrete Math. Models
	ISE 311 Engineering Economic Analysis	MA 401 Applied Differential Eqs. II
	MAE 206 Engineering Statics	MA 402 Comp. Math: Models, Meth. Analysis
	MAE 208 Engineering Dynamics	MA 405 Intro. to Lin. Alg. & Matrices
	MAE 314 Solid Mechanics	PY 328 Astrophysics
	NE 202 Radiation Sources Lab (4 hrs)	PY 407 Modern Physics
	TE 205 Analog & Digital Circuits (4 hrs)	PY 411/412 Mechanics I & II
		PY 414/415 Electromagnetism I & II
		PY (MEA) 463 Fluid Physics

3. List of requirements (Format B)

CURRICULUM REQUIREMENTS

Format B BS IN MATERIALS SCIENCE AND ENGINEERING

Degree/Plan Title: **Bachelor of Science in Materials Science and Engineering**	Plan SIS Code: **14MSE2136**
Concentration/Subplan Title:	Subplan SIS Code:
Indicate requirements status: Current: Proposed: **X**	Proposed Effective Semester: **Fall 2014**
New Degree Audit required? (Y or N) **Yes**	
Critical Path Courses - Identify using the code (CP) which courses are considered critical path courses which represent specific major requirements that are predictive of student success in a given program/plan. Place the (CP) next to the credit hours for the course.	

MAJOR FIELD OF STUDY REQUIREMENTS:		
Required Courses/Groups/ Electives:	***Credit Hours***	GEP category, if applicable
Indicate if course or course groupings have a C-wall or MGPA requirement and which are considered Critical Path courses – indicate with (CP) next to applic. course.		**List GEP category and hours satisfied by a Major requirement**
Math MA 141 (CP), MA 241 (CP), MA 242 (CP), MA 341, ST 370	18	Mathematics (6 hours)
Sciences CH 101 (CP), CH 102 (CP), CH 201, CH 202, CH 220 PY 205 (CP), PY 208 (CP) EC 205	12 8 3	Natural Sciences (8 hours) Social Sciences (3 hours)
Required courses MSE 201 (CP), MSE 255, MSE 260, MSE 270, MSE 300, MSE 301, MSE 320, MSE 335, MSE 355, MSE 360, MSE 370, MSE 380, MSE 420, MSE 423, MSE 470, MSE 480	42	
Concentration Courses/Groups/Electives: **GRP 080 – MSE Processing Elective (choose 1 course)** MSE 440, MSE 445, MSE 455, MSE 456, MSE 460 **GRP 061 Engineering Elective (choose 1 course)** Any MSE processing elective, MSE 350, MSE/NE 409, MSE 490B, CE 214, CE 251, CE 313, MAE 206, MAE 208, MAE 314, ECE 331, ISE/GC 210, ISE 311, NE 202, TE 205 **GRP 071 – Technical Electives (choose 3 courses)** Any MSE processing elective, any engineering elective, BCH 451, CH 221, CH 223, CH 315, CH 401, CH 437, MA 305, MA 351, MA 401, MA 402, MA 405, PY 328, PY 407, PY 411, PY 412, PY 414, PY 415, MEA/PY 463	15	

Free Electives:		
Total credit hours under Major Field of Study: *Minimum 27 hours required in program area.*	98	
COLLEGE REQUIREMENTS:		
Orientation Course(s): E 101 and E 115	2	
Other: ENG 331	3	Satisfies Communication in the Major GEP co-requisite
Total credit hours under College Requirements:	5	

NCSU GENERAL EDUCATION PROGRAM REQUIREMENTS

Courses in the Major and/or Minor may also fulfill a General Education requirement; however, a GEP category may not be subset to require a specific course from the category list. Required courses must be listed in the Major/College requirements.

Specific courses should not be listed in any of the fields below other than ENG 101.

At least one of the following must be listed:

1. Choose course(s) from the University Approved GEP course list for this category.
2. Minimum requirements are satisfied by Major/College course requirements.
3. Major/College course requirement satisfies X credit hrs of this requirement. Remaining hours required must be chosen from the University Approved GEP course list for the category.
4. Co-requisite is satisfied by a Major/College course requirement.
5. Choose course(s) from the University Approved GEP course lists for the Humanities/ Social Sciences/ Visual & Performing Arts.
6. Choose course(s) from the University Approved GEP course lists for Natural Sciences/Mathematical Sciences.

General Education Program Requirements: *Minimum 39-40 hrs*	*Credit hours*	*How will the GEP requirement be met? (Choose applicable statement from 1-6 listed above)*
Mathematical Sciences *(6 credits)* **(At least 1 course with *MA or ST* prefix)** *Course(s) in the Major may double-count to satisfy this requirement and also satisfy either the Global Knowledge or U.S. Diversity co-requisites.*	X	*(Choose statement 1, 2 or 3)* *2. Minimum requirements are satisfied by Major/College course requirements.*
Natural Sciences *(7 credits)* **(At least 1 *lab* course or course with a *lab*)** *Course(s) in the Major may double-count to satisfy this requirement and also satisfy either the Global Knowledge or U.S. Diversity co-requisites.*	X	*(Choose statement 1, 2 or 3)* *2. Minimum requirements are satisfied by Major/College course requirements.*
English 101 (C- or better required) *(4 credits)*	4	ENG 101
Humanities *(6 credits)* **(Courses from *two different* disciplines)** *Course(s) in the Major may double-count to satisfy this requirement and also satisfy either the Global Knowledge or U.S. Diversity co-requisites.*	6	*(Choose statement 1, 2 or 3)* *1. Choose course(s) from the University Approved GEP course list for this category.*
Social Sciences *(6 credits)* **(Courses from *two different* disciplines)** *Course(s) in the Major may double-count to satisfy this requirement and also satisfy either the Global Knowledge or U.S. Diversity co-requisites.*	3	*(Choose statement 1, 2 or 3)* *3. Course in the Major (EC 205) satisfies 3 credit hrs of this requirement. Remaining hours required must be chosen from the University Approved GEP course list for the category.*
Additional Breadth *(3 credits)* **(Choose approach that is *different* from the approach of the Major)** *Major/College requirements cannot satisfy this requirement and an AB course cannot be double-counted except in satisfying the Global Knowledge or U.S. Diversity co-requisites.*	3	*(Choose statement 5 or 6)* *5. Choose course(s) from the University Approved GEP course lists for the Humanities/Social Sciences/Visual and Performing Arts*
Interdisciplinary Perspectives *(5 credits)* *Course(s) in the Major may double-count to satisfy this requirement and also satisfy either the Global Knowledge or U.S. Diversity co-requisites.*	5-6	*(Choose statement 1, 2 or 3)* *1. Choose course(s) from the University Approved GEP course list for this category.*
Physical Education/Healthy Living *(2 credits)* **(Including one *Fitness and Wellness* course)**	2	*Choose course(s) from the University Approved GEP course list for this category.*
Total credit hours needed to complete GEP that are not satisfied as part of the Major/College requirements.	23-24	

GEP Co-Requisites:		***Courses taken in the Major, GEP, or Minor may double-count to fulfill the co-requisites. Courses that satisfy the U.S. Diversity or Global Knowledge co-requisite are marked on course lists with a "USD" or "GK" indicator.***
U.S. Diversity co-requisite (USD)	n/a	*(Choose statement 1 or 4)*
Global Knowledge co-requisite (GK)	n/a	*(Choose statement 1 or 4)*
Foreign Language Proficiency	n/a	Proficiency at the FL_102 level required.
The following requirements must be satisfied within the College/Program:		Place an X in the credit hour box to indicate below that the requirement is **"Satisfied by College/Program Requirements"**
Communication in the Major (Advanced Communication)	X	Satisfied by College/Program Requirements
Technology Fluency	X	Satisfied by College/Program Requirements
Total credit hours required to complete Degree: **Total must be within 120-128 credit hours.**	126 - 127	**As applicable, indicate here the overall GPA requirement for degree completion including course completion.**

4. Catalog description of proposed curriculum

The Department of Materials Science and Engineering (MSE) offers programs to qualify graduates for positions in industry, R & D laboratories, educational institutions and governmental agencies. This basic education involves design, development, selection and processing of engineered materials. Industries served by graduates in materials science and engineering are aerospace, automotive, chemical and chemical processing, communications, electronics, energy production, manufacturing, nuclear and transportation. This program has been accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology, 111 Market Place, Suite 1050, Baltimore, MD 21202; phone: (410) 347-7700.

The MSE program at NCSU prepares their B.S. graduates to achieve the following career and professional goals:

- To apply their knowledge of materials science and engineering to problems and challenges encountered in their professional careers.
- To use modern analytical equipment and methods as needed for materials testing, design, processing, development and research.
- To communicate well orally and in writing, interact professionally and work effectively on multi-disciplinary teams to achieve design and project objectives.
- To engage in lifelong learning in their profession and practice professional and ethical responsibility.

Opportunities

The continuing industrial and technological growth of the United States, the southeast region, and the state of North Carolina has been marked by a particularly strong and increasing demand for materials engineers and scientists. Modern technological advances require new materials and novel processing and/or fabrication methods. At the national level, materials research is prominently mentioned in most lists of critical or enabling technologies. As our understanding of materials science advances, common features and elements tend to unite many different industries. As an example, consider that our current knowledge of silicon is necessary in the electronics, photovoltaics, optical fiber technology, lasers, pollution control, and biomedical industries. Advanced understanding of polymers also crosses and unites several different industries such as plastics, textiles, electronics, biomaterials and recycling.

Education in materials science and engineering provides career opportunities in a wide range of industries from those that produce and/or use metals, glass, polymers, or ceramics, to those which use such materials in an integrated fashion such as the microelectronics industry. These opportunities include careers in research and development of new materials, new processes for producing them, failure analysis, product design, testing and reliability, and technical management at all levels of business. The importance and growth potential of the materials science and engineering discipline is reflected by a recent U.S. Department of Labor study which predicts that over the next decade the demand for materials engineers and scientists will exceed that of any other engineering discipline.

Curriculum

The materials scientist and engineer must understand the wide range of phenomena that occur in all classes of materials: metals, ceramics, polymers, composites and electronic materials. The MSE undergraduate curriculum achieves this by integrating concepts common to all classes of materials into each course as much as possible. This approach differs from the traditional MSE curriculum in which separate courses are devoted to each class of material. The integrated approach provides students with a better understanding of the differences between the various classes of materials by comparing them in each course. Students are then better prepared to design and select the right material for various applications.

The MSE curriculum includes fundamental courses in thermodynamics, kinetics and structure, followed by more applied courses that cover mechanical, thermal, electrical, magnetic and optical properties of materials. Two intensive laboratory courses introduce students to analytical methods used to characterize the structure of materials at all length scales and to measure properties of all classes of materials. Cutting-edge technologies in materials science and engineering such as nanotechnology, biomaterials, computer modeling and forensics (materials degradation and failure analysis) are covered. Five technical electives are included which allow students to select from a broad range of courses in materials processing, engineering, chemistry, physics, mathematics and other disciplines. The flexibility afforded by these technical electives allows students to customize their education to prepare them for careers in industry or for graduate school.

The required 2-semester capstone senior design sequence provides a bridge between concepts learned in the classroom and practical application of these concepts in an industrial setting. The fall semester course covers open-ended classroom exercises, design methodologies, critical thinking skills, group dynamics, team formation and preparation of team project proposals. In the spring semester course, teams of students work on real-world materials problems submitted by industrial sponsors. The remaining required courses in the MSE curriculum are distributed among mathematics, physical sciences, and the humanities and social sciences.

Biomaterials Concentration

The Biomaterials Concentration in the MSE department provides undergraduate students with a comprehensive materials science and engineering background, while introducing elements of biology that will afford students an understanding of how materials interact with the body and how they can enhance quality of life. Students who graduate with a biomaterials concentration in MSE will be well-suited for a career in medical device and medical technology industries that require sufficient understanding of materials selection, processing, and characterization.

Nanomaterials Concentration

The Nanomaterials Concentration in MSE provides undergraduate students with a comprehensive materials science and engineering background, while emphasizing concepts for understanding materials

at length scales approaching the size of a few individual atoms or molecules of a material in the form of ultra-thin films, nanowires and nanoparticles. Properties from materials at these scales can differ from those observed in bulk specimens, while material structure engineering at the nanoscale can influence bulk structural and functional properties. Students who graduate with a Nanomaterials Concentration in MSE will be well prepared for a career working with materials that support nanotechnology industries including electronics, structural materials, and pharmaceuticals.

The materials science and engineering program, which is accredited by the Engineering Accreditation Commission of the Accreditation Board for Engineering and Technology (ABET), leads to the degree Bachelor of Science in Materials Science and Engineering. An accelerated 5-year BS/MS program is available for advanced study and further specialization. Graduate degrees are also offered; consult the online Graduate Catalog: **http://www.fis.ncsu.edu/grad_catalog/catalog.htm.**

Specific curriculum requirements are available online: **www.ncsu.edu/registrar/curricula.**

Minor in Materials Science and Engineering

The Materials Science and Engineering minor is designed to provide undergraduate engineering and science majors in curricula other than MSE with the fundamentals of modern materials science and engineering. Students may select between two tracks in the MSE minor. One track focuses on inorganic materials and requires 17 hours of MSE courses The second track focuses on organic (soft) materials and requires one semester of organic chemistry plus 14 hours of MSE courses. A cumulative GPA of 2.0 or higher is required in the minor courses. Further information regarding a Minor in Materials Science and Engineering is available from the MSE Director of Undergraduate Programs.

5. Enrollment history in Materials Science and Engineering for the past five years

The table below contains undergraduate enrollment information for the MSE-BS degree during the last five years. Note that MSE-U and EFY-MSEI students are not included in these numbers.

Year	Total 14MSE-BS Enrollment
2014	139
2013	118
2012	78
2011	57
2010	54

6. Projected enrollment in Materials Science and Engineering

Our total projected enrollment per year over the next 4 years will approach 150 students. The MSE department has an enrollment cap of 50 students per year for engineering first year students and internal and external transfer students.

Year	Total 14MSE-BS Enrollment
2015	140
2016	150
2017	150
2018	150

7. Consultations with departments likely to be affected by this revision

Departments affected by this curriculum revision include Statistics, due to the addition of ST 370 as a required course, and Computer Science, due to removal of CSC 11x as a required course. These departments have approved theses changes as noted in the emails below.

From: Alison Motsinger [mailto:alison.motsinger@gmail.com]
Sent: Tuesday, April 15, 2014 2:19 PM
To: Mike Rigsbee
Subject: Re: ST 370 for MSE students

Mike -

Sorry for the slow response! It's a yes from statistics!

We'll reserve some seats for your program (based on your projections). Please let's be in touch this spring to reserve the right number of slots!

Alison

On Mon, Apr 7, 2014 at 4:48 PM, Mike Rigsbee <mrigsbee@ncsu.edu> wrote:

Good Afternoon Alison,

Its been a while but I'd like to confirm with you that Materials Science and Engineering intends to begin requiring ST 370 for our undergraduates, probably beginning Fall 2015. Most MSE students would take the course the Fall semester of their sophomore year. Currently about 30% of our undergraduates take ST 370 as one of their technical electives. As we have about 40 (maybe 50 soon) students per class, this would add annually about 30-35 students to your ST 370 enrollment. As one of our areas of specialization would put ST 370 in the Spring term of the senior year, I would estimate that steady state would be 35 total MSE students in the Fall term and 15 total MSE students in the Spring term.

To make this change requires a curriculum change action and this action needs evidence of approval from Statistics. If you approve, could you send me an email confirming?

Sincerely,
Mike Rigsbee

From: Dennis Bahler <bahler@ncsu.edu>
Subject: Re: MSE curriculum change involving CSC 11x
Date: May 5, 2014 at 12:19:03 PM EDT
To: Maury Balik <balik@ncsu.edu>

Maury:

This change to 112 enrollment is fine with CSC.

Dr. Dennis R. Bahler (bahler AT ncsu DOT edu)
Associate Professor of Computer Science
Director of Undergraduate Programs
Chair, Teaching Faculty Recruitment Committee
Program Director, Computer Programming Certificate
Phone: +1.919.515.3369
Sec'y: +1.919.515.2858
Fax: +1.919.515.7896
URL: http://www.csc.ncsu.edu/faculty/bahler/
Mail: Department of Computer Science, Box 8206

North Carolina State University
Raleigh, NC 27695-8206 USA
GPS: Engineering Building II, Rm 2262
890 Oval Drive, Raleigh NC
35°46'17.36" N, 78°40'24.16" W
==========

On Mon, Apr 14, 2014 at 3:10 PM, Maury Balik <balik@ncsu.edu> wrote:
Dennis:

MSE is planning a curriculum revision in which the required introductory programming course (CSC 11x) will be replaced with a required course in Statistics (ST 370). This will involve about 25-30 MSE students per year who usually take CSC 112. Would you please provide written acknowledgement that Computer Science is aware of and agrees to this change?

Thanks,
Maury

C. Maurice Balik
Professor and Distance Education Coordinator
Dept. of Materials Science & Engineering
Campus Box 7907
North Carolina State University
Raleigh, NC 27695-7907

Office: 3078C Engineering Building 1
Centennial Campus
Phone: 919-515-2126
FAX: 919-515-7724
Email: balik@ncsu.edu

N.C. STATE UNIVERSITY
UNDERGRADUATE COURSE ACTION FORM
Effective September 2008

NOTE: Click shaded fields to type data and click on boxes to check.

DEPARTMENT/PROGRAM	BIOLOGICAL SCIENCES
COURSE PREFIX/NUMBER	BIO 444
PREVIOUS PREFIX/NUMBER	
COURSE TITLE	THE BIOLOGY OF LOVE AND SEX
ABBREVIATED TITLE	THE BIOLOGY OF LOVE AND SEX
SCHEDULING	Fall ☐ Spring ☒ Summer ☐ Every Year ☐ Alt. Year Odd ☐ Alt. Year Even ☐ Other ☐
COURSE DELIVERY CHECK ALL THAT APPLY	ON CAMPUS ☒ DISTANCE EDUCATION ☐ ONLINE ☐ REMOTE LOCATION ☐
COURSE CREDIT/GRADING	CREDIT HOURS 3 | GRADING ABCDF ☒ S/U ☐
CONTACT HOURS *See contact/credit hour guidelines for detail.*	LECTURE 3 SEMINAR LABORATORY PROBLEM STUDIO INDEPENDENT STUDY RESEARCH INTERNSHIP PRACTICUM FIELD WORK
IS COURSE REPEATABLE FOR CREDIT?	N | # REPEATS ALLOWED
INSTRUCTOR(S) (NAME/RANK)	LISA MCGRAW, ASSISTANT PROFESSOR DUAL APPOINTMENT? ☐

ANTICIPATED ENROLLMENT	Per semester 15 Per section 15 Will multiple sections be offered? Yes ☐ No ☒
PREREQUISITE(S) COURSE(S) TO BE COMPLETED PRIOR TO ENROLLING	C- OR BETTER IN AT LEAST TWO OF THE FOLLOWING: BIO 330, BIO 410, BIO 424, BIO 488, GN 311
	ENFORCE PRE-REQUISITE CHECKING? YES
CO-REQUISITE(S) COURSE(S) TO BE TAKEN CONCURRENTLY WITH THIS COURSE	
	ENFORCE CO-REQUISITE CHECKING?
RESTRICTIVE STATEMENT (EX: MA AND AMA MAJORS ONLY)	JR OR SR STANDING
COURSE IS AN ELECTIVE FOR:	"IPN ELECTIVES" IN 17BIOSCIPN, "ZOOLOGY ELECTIVES" IN 17ZOOBS, "EEC ELECTIVES" IN 17BIOSCEEC, "HB ELECTIVES" IN 17BIOSCHB, "RESTRICTED ELECTIVES" IN 17GNBS, "ADDITIONAL SCIENCE & MATH ELECTIVES" IN 17ZOOBS AND 17BIOSCBS, "RESTRICTED ELECTIVES" IN 17ZOOBS AND 17BIOSCBS
PROPOSED EFFECTIVE DATE ASAP	APPROVED EFFECTIVE DATE

CATALOG DESCRIPTION: (INCLUDE ANY RESTRICTIVE, TRANSPORTATION, OR FEE STATEMENTS) (100 WORD LIMIT)
THE NEED TO FIND AND SEDUCE A MATE IS ONE OF THE MOST POWERFUL FORCES IN BIOLOGY. IN THIS COURSE, WE WILL EXAMINE THE BIOLOGICAL FACTORS THAT CONTRIBUTE TO LOVE AND SEX. WE WILL ADOPT A BROAD EVOLUTIONARILY-BASED PERSPECTIVE, EXAMINING A VARIETY OF STRATEGIES IN BOTH HUMAN AND ANIMAL SYSTEMS. OUR READINGS AND DISCUSSIONS WILL COVER CURRENT HYPOTHESES AND EXPERIMENTAL METHODOLOGIES SPANNING GENETICS, NEUROSCIENCE, AND ENDOCRINOLOGY.

TYPE OF PROPOSAL

NEW COURSE	☒
DROP COURSE	☐
REVISE COURSE	☐
REVISION IN:	
CONTENT	☐
PREFIX/NUMBER	☐
TITLE	☐
ABBREVIATED TITLE	☐
CREDIT HOURS	☐
CONTACT HOURS	☐
GRADING METHOD	☐
SCHEDULING	☐
PRE/CO-REQUISITES	☐
RESTRICTIVE STATEMENT	☐
CATALOG DESCRIPTION	☐
LEARNING OUTCOMES	☐
GEP LEARNING OUTCOMES ONLY	☐
DUAL-LEVEL COURSE	☐
GEP COURSE	☐
CHECK APPLICABLE CATEGORY BELOW:	
HUMANITIES	☐
SOCIAL SCIENCES	☐
MATHEMATICAL SCIENCES	☐
NATURAL SCIENCES	☐
INTERDISCIPLINARY PERSPECTIVES	☐
VISUAL & PERFORMING ARTS	☐
PE/HEALTHY LIVING	☐
GLOBAL KNOWLEDGE CO-REQ	☐
U.S. DIVERSITY CO-REQ	☐

DOCUMENTATION AS REQUIRED
(CHECK ALL THAT APPLY)

COURSE JUSTIFICATION	☒
PROPOSED REVISION(S) WITH REASONS	☐
ENROLLMENT LAST 5 YEARS	☒
NEW RESOURCES STATEMENT	☒
CONSULTATION WITH DEPARTMENT(S) PROVIDED	☐
SYLLABUS (OLD AND NEW)	☒
GEP CATEGORY OBJECTIVES	☐
GEP STUDENT LEARNING OUTCOMES	☐
MEANS OF ASSESSING GEP OUTCOMES	☐

SIGNATURE PAGE ATTACHED

FOR COURSE ACTION FORM INSTRUCTIONS SEE
HTTP://WWW.NCSU.EDU/UAP/ACADEMIC-STANDARDS/COURSES/CRSINST.HTML

SIGNATURE PAGE

COURSE ACTION FOR BIO 444

RECOMMENDED BY:

HEAD, DEPARTMENT/PROGRAM — DATE 9/10/14

ENDORSED BY:

CHAIR, COLLEGE COURSES & CURRICULA COMMITTEE — DATE 9/24/14

COLLEGE DEAN — DATE 9/24/2014

APPROVED BY:

CHAIR, UNIVERSITY COURSES & CURRICULA COMMITTEE — DATE

CHAIR, COUNCIL ON UNDERGRADUATE EDUCATION — DATE

DEAN, DIVISION OF ACADEMIC AND STUDENT AFFAIRS (DASA) — DATE

APPROVED EFFECTIVE DATE _____

Course Justification
Our students have demonstrated an interest in courses having to do with organismal function (e.g., Neurobiology, Endocrinology, Immunology, Anatomy & Physiology) as well as in the biological bases of behavior. This new course will provide more opportunity for students in an important area of interest, focusing on the interface of genetics, neurobiology, endocrinology, and behavior – all within an evolutionary context. There is also a need for upper division, small enrollment courses for our students, and the instructor is committed to retaining the advantages of a small course by keeping enrollment at or below 15.

Previous Enrollment
Spring 2013 11 (taught as BIO 483, an IPN capstone course offering)
Spring 2014 12 (taught as BIO 483, an IPN capstone course offering)

New Resources Statement
No new resources are necessary for this course. Dr. McGraw will teach BIO 444 as part of her regular teaching responsibilities.

Consultation with Departments
None needed – we do not see any courses listed that BIO 444 might duplicate.

Syllabus
The syllabus starts on the next page.

BIO 444 – The Biology of Love and Sex

(sample syllabus from SPRING 2014); 3 Credit Hours

TTh 1:30-2:45pm; 139 David Clark Labs

NCSU Department of Biological Sciences

Course Description

The need to find and seduce a mate is one of the most powerful forces in biology. In this course we will examine the biological factors that contribute to love and sex. We will adopt a broad evolutionarily-based perspective, examining a variety of strategies in both human and animal systems. Our readings and discussions will cover current hypotheses and experimental methodologies spanning genetics, neuroscience, and endocrinology.

Learning Outcomes

After completing this course, students will be able to:

-integrate concepts, theories, and methods across different areas within biology (including endocrinology, genetics, neurobiology, and evolutionary biology), and apply this knowledge to an understanding of the biology of love and sex.

-evaluate how scientific knowledge and standards are applied in addressing questions about the biology of love and sex.

-distinguish primary literature from review articles.

-identify scientific articles of interest and appropriate to the scope of the course.

-write brief summaries of scientific articles that are clear, accurate, and relevant to understanding the biology of love and sex.

-find research on one topic relevant to the biology of love and sex and present an overview of that research.

-communicate the results of their work in a professional manner.

Course Structure

The course structure will primarily be discussion-based and student-developed. The course will begin with a formal overview of basic concepts within the topic, but this is designed to serve as a "launching pad" from which the course will evolve through collaborative efforts of the students under the guidance of the instructor. Because it is discussion-based, students are expected to attend all classes, read all of the material in advance, and come prepared to discuss the material. Readings will come from a variety of sources and will include both review articles and primary literature, including "hot" late breaking publications. These will be collaboratively selected by the instructor and the students. There will be no formal exams, but other metrics of knowledge and comprehension of the material will be used, including written summaries, class participation, and the production of a high quality, well written review article.

Instructor

Dr. Lisa McGraw - *Instructor*
Email: lamcgraw@ncsu.edu
Phone: 513-4326
Office Location: 146 David Clark Labs (DCL)
Office Hours: By appointment. To schedule, please email Dr. McGraw with "BIO444" in the subject line.

Course Meetings

This course will meet Tuesdays and Thursdays 1:30-2:45 pm. Attendance and participation are required.

Course Materials

There is no assigned textbook. Assigned readings drawn from a variety of sources will be provided. Students are expected to read assigned material prior to each class meeting.

Requisites and Restrictions

Prerequisites

C- or better in two or more of the following: BIO 330, BIO 410, BIO 424, BIO 488, GN 311

Restrictions

JR or SR standing

General Education Program (GEP) Information

This course does not fulfill any General Education Program requirement.

Transportation and Safety & Risk Assumptions

Not applicable

Grading

This Course uses Standard NCSU Letter Grading:

Component	Value	Comments
Reading summaries	10%	1-2 page summary of reading materials. We will discuss expectations the first day of class.
Class participation	20%	We will discuss expectations the first week of class.
Leading discussion	30%	You will select (with approval) 1-2 primary research articles and lead class discussion of those articles.
Review article	20%	An 8-10 page review article on a topic of your choice (with instructor approval) within the scope of the course material. Details will be provided in a separate handout.
Poster	20%	An independent project in which you will create and present a poster on a topic related to the course material. Details will be provided in a separate handout.
Total	100%	

97 ≤ **A+** ≤ 100 %
93 ≤ **A** < 97
90 ≤ **A-** < 93
87 ≤ **B+** < 90
83 ≤ **B** < 87
80 ≤ **B-** < 83
77 ≤ **C+** < 80
73 ≤ **C** < 77
70 ≤ **C-** < 73
67 ≤ **D+** < 70
63 ≤ **D** < 67
60 ≤ **D-** < 63
0 ≤ **F** < 60

Requirements for Credit-Only (S/U) Grading

This course cannot be taken for credit only.

Requirements for Auditors (AU)

This course cannot be audited.

Policies on Incomplete Grades

A grade of Incomplete (IN) may be assigned at the discretion of your instructor. This will be considered only under exceptional circumstances that seriously interrupt your work and that are not caused by your own negligence. An IN grade is appropriate only if your record in this course is such that the successful completion of missed assignments or exams would enable you to pass the course. If an IN is granted, it is the student's responsibility to understand and comply with the terms under which the instructor will change the grade upon completion of required work.

If an extended deadline is not authorized by the instructor or department, an unfinished incomplete grade will automatically change to an F after either (a) the end of the next regular semester in which

the student is enrolled (not including summer sessions) or (b) the end of 12 months if the student is not enrolled, whichever is shorter. Incompletes that change to F will count as an attempted course on transcripts. The burden of fulfilling an incomplete grade is the responsibility of the student. The university policy on incomplete grades is located at http://www.ncsu.edu/policies/academic_affairs/grades_undergrad/REG02.50.3.php.

Late Assignments

Assignments will NOT be accepted after they are due, unless you provide documentation of a university-sanctioned excuse within two days of missing the assignment. Information on university-sanctioned excuses can be found here: http://www.ncsu.edu/policies/academic_affairs/courses_undergrad/REG02.20.3.php

If you feel an error has been made in grading one of your assignments, return the assignment to the instructor with a written explanation of the error; the entire assignment may be re-graded. You must submit your request for a re-grade within one week after the assignment is returned to you.

Attendance Policy

Attendance and Late Arrivals

Attendance at all class sessions is mandatory. This class can only work when everyone attends and participates. Only one unexcused absence will be accepted without penalty. After that, each absence will result in a drop of one letter grade unless a documented excuse is provided (preferably in advance). Please be on time – being more than 5 minutes late to class can be counted as an absence. It is impossible to do well in a discussion-based course such as this one if you are frequently late, absent, or unprepared.

Absences

An absence may be excused if appropriate documentation is provided. The university attendance regulation, including the university definition of excused absences, can be found here: http://www.ncsu.edu/policies/academic_affairs/courses_undergrad/REG02.20.3.php

Makeup Work

Allowed only if you provide documentation of a university sanctioned excuse. No exceptions.

Academic Integrity

Academic Integrity

Students are required to comply with the university policy on academic integrity found in the Code of Student Conduct found at http://www.ncsu.edu/policies/student_services/student_discipline/POL11.35.1.php

Academic Honesty

See http://www.ncsu.edu/policies/student_services/student_discipline/POL11.35.1.php for a detailed explanation of academic honesty.

Honor Pledge

It is the instructor's understanding and expectation that the submission of any exam or assignment means that the student neither gave nor receive unauthorized aid on that exam or assignment. Giving or receiving unauthorized aid may result in an F for this course as well as more severe disciplinary penalties.

Electronically-Hosted Course Components

Students may be required to disclose personally identifiable information to other students in the course, via electronic tools like email or web-postings, where relevant to the course. Examples include online discussions of class topics, and posting of student coursework. All students are expected to respect the privacy of each other by not sharing or using such information outside the course.

Accommodations for Disabilities

Reasonable accommodations will be made for students with verifiable disabilities. In order to take advantage of available accommodations, student must register with the Disability Services Office (http://www.ncsu.edu/dso) located at 1900 Student Health Center, Campus Box 7509, 919-515-7653. For more information on NC State's policy on working with students with disabilities, please see the Academic Accommodations for Students with Disabilities Regulation at http://www.ncsu.edu/policies/academic_affairs/courses_undergrad/REG02.20.1.php.

Non-Discrimination Policy

NC State University provides equality of opportunity in education and employment for all students and employees. Accordingly, NC State affirms its commitment to maintain a work environment for all employees and an academic environment for all students that is free from all forms of discrimination. Discrimination based on race, color, religion, creed, sex, national origin, age, disability, veteran status, or sexual orientation is a violation of state and federal law and/or NC State University policy and will not be tolerated. Harassment of any person (either in the form of quid pro quo or creation of a hostile environment) based on race, color, religion, creed, sex, national origin, age, disability, veteran status, or sexual orientation also is a violation of state and federal law and/or NC State University policy and will not be tolerated. Retaliation against any person who complains about discrimination is also prohibited. NC State's policies and regulations covering discrimination, harassment, and retaliation may be accessed at http://www.ncsu.edu/policies/campus_environ or http://www.ncsu.edu/equal_op. Any person who feels that he or she has been the subject of prohibited discrimination, harassment, or retaliation should contact the Office for Equal Opportunity (OEO) at 919-515-3148.

Supporting Fellow Students in Distress

As members of the NC State Wolfpack community, we each share a personal responsibility to express concern for one another and to ensure that this classroom and the campus as a whole remains a safe environment for learning. Occasionally, you may come across a fellow classmate whose personal behavior concerns or worries you. When this is the case, I would encourage you to report this behavior to the NC State Students of Concern website: http://studentsofconcern.ncsu.edu/. Although you can report anonymously, it is preferred that you share your contact information so they can follow-up with you personally. (from Paul Tonsgri, Student Behavioral Case Manager, 919-515-2944)

Sample Schedule- BIO 444 Biology of Love and Sex

Date	Subject
Week 1	Introduction to the Course – Why Sex? Introduction to Navigating Scientific Literature
Week 2	Theory of Sexual Selection
Week 3	Lessons from the Animal Kingdom
Week 4	Sociobiology
Week 5	Monogamy & Promiscuity Review Article proposed topic due
Week 6	Mate Preference
Week 7	Visual, Acoustic and Chemical Signaling
Week 8	Intrasexual Competition
Week 9	SPRING BREAK
Week 10	Sexual Conflict
Week 11	Sperm Wars
Week 12	Alternative Mating Tactics
Week 13	Homosexuality Poster outline due
Week 14	Parent/Offspring Interactions
Week 15	Sex in Plants Review Article due
Week 16	Epigenetics & other strange topics! Final Poster due (poster session date TBA)

MEMORANDUM

TO: University Course and Curriculum Committee

FROM: Dr. Deborah Acker, Hugh Shelton Leadership Center and
the Division of Academic and Student Affairs

RE: **Establishment of a new prefix: SLC – Shelton Leadership Course**

As part of the course proposal SLC 250, the Division of Academic and Student Affairs Academic Programs and Services, and the Hugh Shelton Leadership Center is proposing the establishment of a new prefix SLC (Shelton Leadership Course). This prefix will be utilized for course offerings developed and supported by the Hugh Shelton Leadership Center in collaboration with the Division of Academic and Student Affairs providing academic opportunities that foster leadership and personal development.

The SLC prefix will be housed under DASA with Academic Org 24APS and CIP Code 30.9999.

N.C. STATE UNIVERSITY
UNDERGRADUATE COURSE ACTION FORM
Effective September 2008

NOTE: Click shaded fields to type data and click on boxes to check.

Department/Program	Shelton Leadership Center, DASA
Course Prefix/Number	**SLC 250**
Previous Prefix/Number	GEP-IPGE 295
Course Title	CRITICAL AND CREATIVE DECISION MAKING MODELS
Abbreviated Title	CRITICALCREATIVEDECISIONMODELS
Scheduling	Fall ☒ Spring ☒ Summer ☐ Every Year ☒ Alt. Year Odd ☐ Alt. Year Even ☐ Other ☐
Course Delivery Check all that apply	On Campus ☒ Distance Education ☐ Online ☐ Remote location ☐
Course Credit/Grading	**Credit Hours** 3.00 — **Grading** ABCDF ☒ S/U ☐
Contact Hours *See contact/credit hour guidelines for detail.*	**Lecture 3** Seminar Laboratory Problem Studio Independent Study Physical Activity Internship Practicum Field Work
Is course eligible to be repeated for credit? (Different Topical Content each offering)	N — # Repeats allowed
Instructor(s) (Name/Rank)	Dr. Deborah Reno Acker Non-Tenured Dual Appointment? ☐

Anticipated Enrollment	Per semester 50 Per section Will multiple sections be offered? Yes ☐ No ☒
Prerequisite(s)	None
Course(s) to be completed prior to enrolling	Enforce pre-requisite checking?
Co-requisite(s)	None
Course(s) to be taken concurrently with this course	Enforce co-requisite checking?
Pre/Co-requisite for...	
Restrictive Statement (ex: MA and AMA majors only)	INTERDISCIPLINARY
Course is required for:	
Course is an elective for:	GEP Interdisciplinary Perspectives
Proposed Effective Date 1/2015	Approved Effective Date — Course Review Due

Catalog Description: (Include any Restrictive, Transportation, or Fee Statements) (100 word limit)

This course is designed for the student who wants to learn to think critically and creatively when making decisions taking into consideration a variety of decision making models across (sub) disciplines. Throughout the course, students will be presented a minimum of 4 models on decision-making and thinking processes across (sub) disciplines to consider when addressing different problems. Questions will be asked of students in a way that will foster critical and creative thinking in order to analyze, process, and identify effective ways for approaching a problem/situation using the models presented.

Type of Proposal

New Course	☒
Drop Course	☐
Revise Course	☐
Revision in:	
Content	☐
Prefix/Number	☒
Title	☐
Abbreviated Title	☐
Credit Hours	☐
Contact Hours	☐
Grading Method	☐
Scheduling	☐
Pre/Co-requisites	☐
Restrictive Statement	☐
Catalog Description	☐
Learning Outcomes	☐
GEP Learning Outcomes Only	☐
Dual-Level Course	☐
GEP Course	☒
Check applicable category below:	
Humanities	☐
Social Sciences	☐
Mathematical Sciences	☐
Natural Sciences	☐
Interdisciplinary Perspectives	☒
Visual & Performing Arts	☐
PE/Healthy Living	☐
Global Knowledge Co-req	☐
U.S. Diversity Co-req	☐
Thematic Track	☐

Documentation as Required

(check all that apply)

Course Justification	☒
Proposed Revision(s) with Reasons	☒
Enrollment Last 5 Years	☐
New Resources Statement	☐
Consultation with Department(s) provided	☐
Syllabus (Old and New)	☒
GEP Category Objectives	☒
GEP Student Learning Outcomes	☒
Means of Assessing GEP Outcomes	☒

Signature Page Attached

For Course Action Form Instructions see http://www.ncsu.edu/uap/academic-standards/courses/crsinst.html

SIGNATURE PAGE

COURSE ACTION FOR
SLC 250 CRITICAL & CREATIVE DECISION MAKING MODELS

RECOMMENDED BY:

8-27-14

HEAD, DEPARTMENT/PROGRAM — DATE

ENDORSED BY:

Peggy Domingue — 9-15-2014

CHAIR, COLLEGE COURSES & CURRICULA COMMITTEE — DATE

9-15-2014

COLLEGE DEAN — DATE

APPROVED BY:

CHAIR, UNIVERSITY COURSES & CURRICULA COMMITTEE — DATE

CHAIR, COUNCIL ON UNDERGRADUATE EDUCATION — DATE

DEAN, DIVISION OF ACADEMIC AND STUDENT AFFAIRS (DASA) — DATE

APPROVED EFFECTIVE DATE _____

From: Dr. Debbie Acker, Assistant Director,
Shelton Leadership Center

To: UCCC Committee, CUE Committee

Re: SLC 250 – Critical & Creative Decision Making Models
Justification

The General Shelton Leadership Center asks the consideration of NC State University Standing Committee on Courses and Curricula (UCCC) to approve the above course as a permanent course offering for fall and spring semesters. The course was designed with the assistance of faculty, staff, students and external business partners identifying a gap in recent graduates' abilities to critically think and make effective decisions independently in a timely manner. At the same time, the university announced its plan to have its SACS accreditation's focus be centered on critical and creative thinking. The pedagogical framework the Shelton Leadership practices and trains with is grounded in a critical & reflective thinking process. This process has been incorporated within the development of the course pedagogy.

The Shelton Leadership Center continues to seek to align with the university's strategic plan within student success and organizational improvements related to this course offering. Therefore, we strongly believe the placement of the course should be within DASA as a general interdisciplinary course offering available to all students. The course seeks to have at least four guest faculty from across the university to share a decision making process that is used within their sub-discipline. The intent of the course is to provide students with a variety of decision making models they can utilize in future situations when critically and creatively thinking about how to solve a problem and/or make a decision in the future. The Shelton Leadership Center values an interdisciplinary approach to enhance the outcome of decisions. This approach encourages discussion around multiple perspectives and enhances the likelihood for developing greater knowledge across-disciplines for when students graduate and is faced with working in team environments that is interdisciplinary.

SLC 295 Critical & Creative Decision Making Models

Dr. Debbie Acker
Email: debbie_acker@ncsu.edu
Office Hours: By appointment. I work in multiple locations on campus. Please contact me via email at least 48 hours before your desired meeting time to schedule an appointment.

Pre-Requisites: None inhibit

Course Book: $11.55. Ruggiero, V. (2012). The Art of Thinking: A Guide to Critical and Creative Thought, Tenth Edition. Pearson Education. ISBN-13: 978-0-205-11938-7.

Course Description:

Students will explore a decision making model used within each of the following disciplines: professions and applied sciences (sub-disciplines – textiles, business, DASA (military) and entrepreneurship). Primary focus will be on developing the student's mindset to select the most appropriate decision making model to effectively address a situation and be able to articulate why this learning matters and how to apply it in future situations.

Course Learning Outcomes: Students successfully completing this course will be able to:

1. Formulate informative decisions examining the relationship between four decision-making models;
2. Differentiate between interdisciplinary decision-making models;
3. Demonstrate creatively bringing together new ideas and presenting new possibilities for how to address a problem that has already occurred;
4. Examine how to access a situation through the lens of multiple decision-making models.

IPGE Category Objectives: Students successfully completing this course will be able to:

1. Distinguish between the distinct approaches of two or more disciplines; and
2. Identify and apply authentic connections between two or more disciplines; and
3. Explore and synthesize the approaches or views of the two or more disciplines.

IPGE Learning Outcomes: Students will be able to:

1. Describe (explain, identify) the distinct approaches to decision making for each of the four disciplines.
2. Choose the most appropriate disciplinary decision making model in different situations.
3. Compare and contrast how each disciplines' model addresses a problem.
4. Analyze the relationship between each disciplines' model as they are applied to a current case study.
5. Creatively bring together new ideas from the four disciplines' models and present new possibilities for how to address a problem that has already occurred.

Purpose and Expectations:

This course is designed for the student who wants to learn to think critically and creatively when making decisions taking into consideration a variety of decision making models across disciplines. Throughout the course, students will be presented a variety of decision making processes, as well as five models on decision-making across disciplines to consider when addressing different problems. Questions will be asked of students in a way that will foster critical and creative thinking in order to analyze, process, and identify effective ways for approaching a problem/situation (taking into consideration the models/theories that have been presented to the students). Students will be asked to reflect on how the way the decisions were made may/not apply to the student major. Students are encouraged to pay especially close attention to the discussion that will occur on our first day of class that will cover tips on how to be successful in this class. I also recommend reviewing the notes (which will be available through the course website) throughout the semester for a refresher.

Communication:

Course announcements will be distributed using the email address listed with the University. It is the responsibility of the student to ensure that this mailbox is checked on a regular basis.

Attendance Policy:

Attendance is mandatory and expected. Class sessions are interactive and cannot be "made up" on your own time. If you have not signed the roll when class starts for any reason, you will be considered absent during the entire class period. Students entering the classroom after class has started WILL NOT be counted as present, and therefore will be counted absent for the entire class period. I understand that emergencies and unexpected events happen – if a situation causes you to be late, please

be quiet and as discreet as possible when you enter the classroom. If this happens after your first 3 absences, you can submit a Request for Excused Absence for consideration.

Your first 3 absences will not count against you for any reason including athletic events, university field trips, work, sickness and family emergencies. For every absence over 3 that is not excused, your class grade will be deducted by 3.5-3.3 points. Any absence beyond the first 3 absences that you would like to have considered as excused will be handled in the following way:

1. Fill out the Request For Excused Absence Form found on the course website (wolfware)
2. Save it as an acceptable file format
3. Send it as an attachment in an email with a subject line of **IPGE 295 Absence Request** within 1 week of the absence.
4. I will review the document and let you know if the absence was excused or not.
5. Any absence that has not been addressed in this manner as outlined above within one week of the absence will automatically count as an unexcused absence.

During class time, I will call on students for discussions or perform a formal attendance check. If you have signed the role for the day and you are not present when I call your name or perform any additional attendance checks, your class grade will be deducted by 3.5-3.3 points. Signing the role and then leaving class is a violation of academic integrity and will have a negative impact on your class participation grade for the day.

Academic Integrity: http://www.ncsu.edu/policies/student_services/student_discipline/POL11.35.1.php

For all written assignments, students will be expected to adhere to the **University Honor Code**: "I have neither given nor received unauthorized aid on this test or assignment." It is the understanding and expectation of the instructor that the student's submission to the moodle (wolfware) site on any assignment means that the student neither gave nor received unauthorized aid. If the student violates the policy, a zero will be provided for the assignment and a violation will be submitted through the NC State Judicial Board.

Course Documents and Information

Please refer to the course Moodle (wolfware) site for all documents and information that you will need for this class. Documents that can be found on the site include copies of: Syllabus, Syllabus Summary and FAQs, blank Request for Excused Absence forms, blank Team Feedback Forms, blank Grade Calculation forms, a projected course schedule, and **all materials** that are needed to prepare for class each day.

ASSIGNMENTS

- Please note that I will give general length requirements to some assignments, but what you do with that space is up to you and is a direct reflection of your commitment, style of work, and work ethic. If you choose to cut and use excessive margin sizes or take up 7 lines with your name and other non-assignment related details, that is fine, but you will be graded accordingly. Treat your assignments (and all work that you do) as a chance to demonstrate the very best that you are capable of.
- For assignments with no length requirements, you should present all necessary information in a manner that is as clear and succinct as possible, but also that is inclusive of all necessary elements.
- **ALL ASSIGNMENTS MUST BE SUBMITED AS EITHER A .MP4, .DOC, .DOCX, .PPT, or .PPTX FORMAT.** If I cannot open your assignment, I cannot grade your assignment.
- All assignments are due on the specified due date by the start time for your class section.

Class Preparation: Worth 100 points

There will be multiple opportunities to participate in class discussions and activities throughout the semester. You are expected to not only be prepared for class but also participate. We all bring unique backgrounds, personalities, learning styles, thoughts and ideas to the classroom. Completion of this requirement will be provided during class through group (small/large) discussions focusing on societal problems and case studies looking through the lenses of multiple decision making models comparing and contrasting the models with how the problem was solved and/or could be solved using the models. Learnings that generate through discussion will be shared with the class, at large, and how it can be applied in other settings.

Personal Introduction and Decision Making worth 100 points

1. Update your profile in Moodle so that it includes a photo of you.
    a. Create a PowerPoint presentation that contains exactly 3 slides that tell the story of who you are. Be creative! These will be shown to the entire class. The requirements are as follows:
        i. Slide 1 must contain: Your name; 1 picture of you alone – no group shots; Your major; 2 personal strengths and 2 personal areas of improvement.
        ii. Slide 2 must contain: Your name; At least 5 things that you are interested in or want to learn more about. This can include hobbies, interests, etc.
        iii. Slide 3 must contain: Your name; Anything else that you would like to share about yourself; Any photos that you want to share with the class

2. Write a one-page essay describing, examining and identifying learning outcomes (refer to course outcomes) regarding the following question: "What was the process for making the decision to come to NC State University?"

   Grading will be based on the quality and completeness of the total assignment. Late assignments will receive no points.

   DUE: By the start of your class time on Tuesday, September 2, 2014

Two Case Study Article Assignments worth 100 points each

- The ability to critically and creatively make decisions is essential to the success of any person living and working in today's society. Therefore, each project team will select an article about an organization, societal or personal situation that resulted from a specific decision made. Individually, students will write a paper summarizing the premise of the article from his/her perspective.
- Then, based on any of the processes (six hats, values, critical/creative) and two current decision making models from a college perspective discussed in class, the student will critically consider how the models of decision making may have been used or not used within the articles situation.
- Finally, based on the assessment, the student will be asked to recommend how he/she may have handled the situation with the knowledge gained through the two decision making models and self-awareness process discovered through the course, thus far.
- Case study article assignments will be due at the beginning of class on the assigned due date. This assignment is a personal document and students should feel free to write it in any way that they choose. The only requirements are that entries must be the equivalent of at least one full page (single spaced) in length and contain elements of what has been accomplished in this class as related to the topics assigned below and how the information and/or experiences pertain to the individual student. **Grading will be based on the quality and completeness of the assignment.** Late assignments will receive no points. All assignments must be submitted through the appropriate assignments tab in the course website.
  1. Case Study Article 1: Models – Military Decision Model (Sciences), Entrepreneurial Thinking (entrepreneur perspective) and any others (six hats of thinking, values, critical or creative processes).
     i. DUE: By the start of your class time on Thursday, September 25, 2014.
  2. Case Study Article 2: Models – Portfolio Decision Making, Pitfalls in team decision making (business perspective), Cognitive Lewis Fix (education perspective), and any others (six hats of thinking, values, critical or creative processes).
     i. DUE: By the start of your class time on Tuesday, October 21, 2014.

Team Project: Decision Making Models for NC State Prospects worth 100 points

Integrating at least 4 models/theories of decision making, each team will create a commercial to assist prospective students to think about how to make an educated decision to attend NC State as their college choice.

- Your team project will be based on the DEAL (describe, examine, and articulate learning) reflective process and how the team integrates at least four of the models within the delivery of a commercial video to assist prospective students to effectively make the decision to come to NC State University.
- The team video is worth 100 points. Team members will receive the same grade. Teams will be expected to present and share their commercial videos to the class. Each team member will receive the same grade on the video. All assignments must be submitted through the appropriate assignments tab on moodle. Assignments will be due at the beginning of class on the assigned due date. Assignments submitted late will be penalized one letter grade per day.
- Following the clip, team members need to be prepared to answer questions related to how their team worked together while making the video and how they believe their team incorporated some of the decision making models they have been discussed in class during the semester while working on the project together.

DUE DATE (Commercial Video): By the start of class time on Tuesday, November 13, 2014.

Team Project Personal Reflection Paper worth 100 points

Following the completion of the Team Project, each student will be required to write a paper reflecting on the process for how the team made decisions around creating the commercial and how at least four models discussed through the course were incorporated or not incorporated within the development of the project.

- The paper should reflect on your observations, feelings, perspectives in how the team did or did not utilize the variety of decision making models discussed during the semester, as well as how the team could have worked differently together in order to produce a better product. And, what did you personally learn through the experience working on the project with this team that you can apply in future situations?
- Reflection paper will be worth 100 points
- Individual grades will be assigned on the reflective paper. All assignments must be submitted through the appropriate assignments tab in the course website. Assignments will be due at the beginning of class on the assigned due date. Assignments submitted late will be penalized one letter grade per day.

DUE (Reflection Paper): By the start of your class time on Tuesday, November 18, 2014.

Personal Discovery Project worth 100 points total

People must have an understanding of who they are in order to fully understand what they want to accomplish. Therefore, each student will be encouraged to keep a journal that documents his or her personal growth and development throughout the course of the semester. This journal is a personal document and students should feel free to write it in any way that they choose. Students are encouraged to journal about elements of what has been accomplished in this class as related to the topics assigned throughout the course and how the information and/or experiences pertain to the individual student. The project must be submitted through the appropriate assignments tab in the course website. Specifically, the project will contain the following components:

1. Create a PowerPoint presentation that contains exactly 2 slides that tell the story of who you are now since going through the course. Be creative! These will be shown to the entire class and each student will present to the entire class. The requirements are as follows:
    1. Slide 1 must contain: Your name; 1 picture of you alone – no group shots; Your major; 2 strengths and 2 areas to improve within decision making based on your class experience;
    2. Slide 2 must contain: Your name; At least 3 things that you learned about yourself while participating in the course.

DUE: By the start of your class time on Tuesday, December 2, 2014

Final Examination: Worth 200 points

Part One: Describe, examine and identify learning outcomes regarding what you have learned through the course topics and self-awareness topics throughout the course. (100 pts)

Part Two: Describe, examine and identify learning outcomes regarding the following question: "Based on the course topics and self-discovery gained throughout the course, how would you incorporate the models and self-awareness into making your decision to come to NC State University?" and "What would you recommend for future students to consider when making the decision to come to NC State University?" (100 pts)

Your exam will be due before the end of the regularly scheduled exam time and must be submitted through the appropriate assignments tab in the course website. Exams submitted late will receive no credit and will receive a grade of 0 points.

Due: Tuesday, December TBD, 2014 by 11:59 PM

Grading Policy:

	Points
Class/Moodle Participation	100
Personal Decision Making	100
Case Study Article Assignments (1)	100
Case Study Article Assignments (2)	100
Team Project	100
Team Project Reflection Paper	100
Personal Discovery Project	100
Final Exam	200
Mean Score	900

Final Grades

A+ : 97 - 100	C+ : 76 – 79
A : 93 - 96	C : 73 - 75
A- : 90 - 92	C- : 70- 72
B+ : 86 - 89	D+ : 66 - 69
B : 83 - 85	D : 63 – 65
B- : 80 - 82	D- : 60 - 62
	F : 0 - 59

Assignment Grades

A (Excellent): Total Points x 100%
B (Good): Total Points x 85%
C (Satisfactory): Total Points x 75%
D (Well Below Average): Total Points x
F (Unacceptable): 0 Points

Course Schedule

- Follow link for each week on the course website for schedules, topics, readings, class materials and announcements.

Some Final Information

- Students are expected to follow the official NC State University Code of Student Conduct which can be found at http://policies.ncsu.edu/policy/pol-11-35-01
- All assignments must be submitted through the appropriate assignments tab in the course website on the respective due date. E-mailed assignments will not be accepted. Any assignment not submitted by the deadline on the given due date will be considered late and will be penalized according to the syllabus.
- All grades of an "F" will receive a numerical grade of "zero".
- Due dates are considered to be the date given in the syllabus at the beginning of class. Any assignments turned in after the beginning of class will be considered past the due date and will be penalized according to the syllabus.
- Excused absences are defined by university policy. *http://www.ncsu.edu/policies/academic_affairs/courses_undergrad/REG02.20.3.php*

Incomplete Grades:

Incomplete grades will be assigned only if unavoidable and unforeseen events occur, such as a medical emergency, preventing the student from completing a course requirement before the final grades are submitted. Incompletes must be made up before the end of the next regular semester in which the student is enrolled and in no case may be made up more than 12 months after the end of the semester in which the IN is awarded, unless the teacher or department offering the course is not able to provide the student with an opportunity to make up incomplete work, in which case the period can be extended. Make up work is to be limited to accomplishing the work not completed.

Credit Only Grading: http://www.ncsu.edu/policies/academic_affairs/courses_undergrad/REG02.20.15.php

In order to receive a grade of S, students are required to complete all exams and assignments and earn a grade of C- or better. Conversion from letter grading to credit only (S/U) grading is subject to university deadlines. Refer to the Registration and Records calendar for deadlines related to grading.

Audit Grading: http://www.ncsu.edu/policies/academic_affairs/pols_regs/REG205.00.5.php.

In order to receive a grade of AU, students must attend all classes and complete and turn in all homework assignments. These homework assignments must be completed in a manner that would result in a grade of C or better if the assignment were graded.

Late Assignments

The penalties for late assignments may vary for each individual assignment. Please read the assignment descriptions for details about late penalties for each assignment.

Students with Disabilities:

Reasonable accommodations will be made for students with verifiable disabilities. In order to take advantage of available accommodations, students must register with Disability Services for Students at 1900 Student Health Center, Campus Box 7509, 515-7653. http://www.ncsu.edu/provost/offices/affirm_action/dss/

For more information on NC State's policy on working with students with disabilities, please see the Academic Accommodations for Students with Disabilities Regulation (http://www.ncsu.edu/policies/academic_affairs/courses_undergrad/REG02.20.1.php)

Anti-Discrimination statement:

NC State University provides equality of opportunity in education and employment for all students and employees. Accordingly, NC State affirms its commitment to maintain a work environment for all employees and an academic environment for all students that is free from all forms of discrimination. Discrimination based on race, color, religion, sex, creed, national origin, age, disability, veteran status or sexual orientation is a violation of state and federal law and/or NC State University policy and will not be tolerated. Harassment of any person (either in the form of quid pro quo or creation of a hostile environment) based on color, religion, sex, creed, national origin, age, disability, veteran status or sexual orientation is also a violation of state and federal law and/or NC State University policy and will not be tolerated. Retaliation against any person who complains about discrimination is also prohibited. NC State's policies and regulations covering discrimination, harassment, and retaliation may be accessed at http://www.ncsu.edu/policies/campus_environ or http://www.ncsu.edu/equal_op. Any person who feels that he or she has been the subject of prohibited discrimination, harassment, or retaliation should contact the Office for Equal Opportunity (OEO) at 515-3148.

	Content	• Speakers/Facilitators	• Readings
Day 1 Thursday Aug 21	Intro 1 Syllabus Review Introduction to Moodle	• Debbie Acker, Course Faculty Lead	•
Day 2 Tuesday Aug 26	Intro 2 What is Critical & Creative Effective Decision Making?	• Debbie Acker, Course Faculty Lead	• Article: Flores, Matkin, Burbach, Quinn, & Harding. (2012). *Deficient Critical Thinking Skills among College Graduates: Implications for leadership.* Educational Philosophy and Theory, Vol. 44. • Assignment 1: Personal Introduction and Discovery
Day 3 Thursday Aug 28	Self-Awareness 6 Hats of Thinking	• Debbie Acker, Course Faculty Lead	• Textbook Pages: 95-105, 110-119, 125-133, 138-156, 162-175 • Article: Today's Generation of College Students Will Face Many Challenges: College Can Teach Them How. The New York Times Company (September 24, 2007) • Guide: Six Hats Thinking® (This guide has been developed using materials provided by the Overseas Development Institute's Research and Policy in Development (RAPID) Programme)
Day 4 Tuesday Sept 2	Reflective vs. Non-Reflective Thinking	• Dr. Myra Moses, Shelton Leadership Center	• Article: Densten & Gray. (2001). Leadership development and reflection: what is the connection? The International Journal of Educational Management. • Guide: DEAL Reflection Model
Day 5 Thursday Sept 4	Self-Awareness Understanding Your Values	• Debbie Acker, Course Faculty Lead	• Textbook Pages: 237-246, 251-265
Day 6 Tuesday Sept 9	Model 1: DASA – Military Decision Model	• Faculty – LTC Randall Wheeler, NC State ROTC Commander	• Chapter: Retrieved on September 9, 2014.The Military Decision-Making Process. United States Department of Air Force. • Article: ADP 5-0: The operations Process. (May 2012). Headquarters, Department of Army. • PPT slides: Military process.
Day 7 Thursday Sept 11	Case Study Exercise in Project Teams	Debbie Acker, Course Faculty Lead	• Case Study: Retrieved on September 11, 2014. Committee report on the military: Panel finds Clinton, Bush had plenty of options.

Day 8 Tuesday Sept 16	Case Study Exercise in Project Teams	• Debbie Acker, Course Faculty Lead	• Case Study: Ashkenas (2012). The Chicken-Egg Problem with Organizational Change. HBR Blog Network.
Day 9 Thursday Sept 18	Model 2: Entrepreneurial Thinking	• Jennifer Capps, NC State Entrepreneurial Initiative	• Case Study: Buchanan. (2010). The Heart of a Company, Balancing Work and Personal Life, Inc.com. • PPT slides on entrepreneurial thinking (EI, NC State).
Day 10 Tuesday Sept 23	Case Study: Project Teams	• Debbie Acker, Course Faculty Lead	•
Day 11 Thursday Sept 25	Case Study: Project Teams	• Debbie Acker, Course Faculty Lead	• Case Study: Game On! Backed with Aggressive Project Management Standards, Chile's Government Rises to the Challenge of Building Four New Soccer Stadiums in Less Than a Year. Project Management Institute. • Assignment 2: Case Study (Analyzing Entrepreneurial Thinking and Military Decision Making Models)
Day 12 Tuesday Sept 30	Cognitive Five Process	• Debbie Acker, Course Faculty Lead	• Article: Lewis (2006). Creativity: A framework for the Design/Problem Solving Discourse in Technology Education. Digital Commons @USA.
Day 13 Thursday Oct 2	Case Study: Project Teams	• Debbie Acker, Course Faculty Lead	• Case Study: Retrieved on February 18, 2014.www.pbs.org. North Carolina coal ash spill raises questions about enforcement of environmental regulations.
Day 14 Tuesday Oct 7	Case Study: Project Teams	• Debbie Acker, Course Faculty Lead	•
Day 15 Thursday Oct 9	FALL BREAK!!!!		
Day 16 Tuesday Oct 14	Portfolio Decision Making Model	• Debbie Acker, Course Faculty Lead	• Article: Kester, Griffin, Hultink, & Lauche. (2011). Exploring Portfolio Decision-Making Processes. Product Innovation Management.

Day 17 Thursday Oct 16	Model 3: Pitfalls in Team Decision Making (Business Perspective)	• Guest Speaker: Dr. Brad Kirkman, Poole College of Management	• Article: Bazerman & Chugh (2006). Decisions Without Blinders. Harvard Business Review. • PPT slides: Team Decision Making Pitfalls.
Day 18 Tuesday Oct 21	Case Study: Project Teams	• Debbie Acker, Course Faculty Lead	• Case Study: TBD • Assignment 3: Case Study (Analyzing Lewis Five and Pitfalls of Team Decision Making Models)
Day 19 Thursday Oct 23	Case Study: Project Teams	• Debbie Acker, Course Faculty Lead	• Case Study: TBD
Day 20 Tuesday Oct 28	Model 4: Strategic Planning and Decision Making in Textiles	• Guest Speaker: Dr. Hergeth, College of Textiles	• PPT slides: Decision Making Methods in Textiles
Day 21 Thursday Oct 30	Case Study Discussion Project Teams	• Debbie Acker, Course Faculty Lead	• Case Study: Papakostas, Mourtzis, Michalos, Makris, & Chryssolouris (2012). An agent-based methodology for manufacturing decision Making: a textile case study. •
Day 22 Tuesday Nov 4	Case Study Discussion Project Teams	• Debbie Acker, Course Faculty Lead	• Case Study: TBD
Day 23 Thursday Nov 6	Work Day in Project Teams		
Day 24 Tuesday Nov 11	Team Project Presentations	• Debbie Acker, Course Faculty Lead	• Assignment 4: Team Video Commercials (Analyzing four of the decision making processes discussed in class)
Day 25 Thursday Nov 14	Team Project Presentations	• Debbie Acker, Course Faculty Lead	•
Day 26 Tuesday Nov 18	Guest Leader Panel	• Debbie Acker, Course Faculty Lead	• Assignment 5: Personal Reflection on Team Project (Analyzing four of the decision making processes discussed in class)

Day 27 Thursday Nov 20	Review of Decision Making Models	• Debbie Acker, Course Faculty Lead	•
Day 28 Tuesday Nov 25	Personal Discovery Project Presentations	• Debbie Acker, Course Faculty Lead	• Assignment: Personal Discovery Presentation
Day 29 Thursday Nov 27	Thanksgiving Break!!!		
Day 30 Tuesday Dec 2	Last Day of Class: Personal Discovery Project Presentations	• Debbie Acker, Course Faculty Lead	•
Final Exam TBD	Submit Final Essay through Moodle		

GEP Interdisciplinary Perspectives (IP) Course Submission Form

This form is to be used for submitting Interdisciplinary Perspectives GEP course actions to the Council on Undergraduate Education (CUE)

Course action proposals for a GEP course must provide documentation to show how the course is designed to enable a student to achieve the particular GEP category objectives.

The ***GEP Interdisciplinary Perspectives objectives*** will provide instruction and guidance that help students to:

1. Distinguish between the distinct approaches of two or more disciplines; and
2. Identify and apply authentic connections between two or more disciplines; and
3. Explore and synthesize the approaches or views of the two or more disciplines.

Department(s)/Program	SHELTON LEADERSHIP CENTER	**New to GEP Category** ☒
Course Prefix/Number *(include cross-listed prefix)*	SLC 250	**Retain for GEP Category** ☐
Course Title	**CRITICAL & CREATIVE DECISION MAKING MODELS**	
Instructor Name/Title	**Dr. Debbie Reno Acker**	

SECTION 1: GEP CRITERIA

Instructions:

- At least one of the Instructor's student learning outcomes must be listed under each GEP category objective.
- Achievement of the outcomes must allow students to meet the GEP category objectives.
- Outcomes must illustrate what students will do in order to demonstrate they have achieved the outcome.
- At least one means of evaluation must be listed under each outcome and provide data to allow the instructor to judge how well students have achieved outcomes.
- Student learning outcomes that are relevant to the GEP category objectives must be applied to all course sections.
- For assistance with writing outcomes and list of active verbs using ***Bloom's Taxonomy*** [Click Here]

To assist CUE in evaluating this course for inclusion on the Interdisciplinary Perspectives list, please provide answers to the following questions:

A. Which disciplines will be synthesized, connected, and/or considered in this course?
The course will integrate at least four sub-disciplines each semester. At this time, three continual sub-disciplines will be management, entrepreneurship, and textiles. Last semester education was integrated. Fall 2014 semester military science will be integrated within the course. Other models will be covered; however, there will be at least four guest faculty from college disciplines will instruct on decision making models within their discipline. The course is open to having other college decision making models incorporated into the course each semester.

B. How will the instructor present the material so that these disciplines are addressed in a way that allows the students "to integrate the multiple points of view into a cohesive understanding"?
Through the utilization of an experiential learning method, the instructor will have student compare, contrast, and analyze models presented in class through case studies and activity. Following examining the models, students will be asked questions to help them critically think about potential applications personally, school, work, and community based on learnings from model comparisons.

List the Instructor's student learning outcomes for the course that are relevant to GEP *Interdisciplinary Perspectives Objective 1*:
Obj. 1) Distinguish between the distinct approaches of two or more disciplines.

1. Students will describe (explain, identify) the distinct approaches to decision making for each of the four disciplines.
2. Students will be able to choose the most appropriate disciplinary decision making model in different situations.

Measure(s) for above Outcome:

Provide a general description of the types of assignments/assessments that will be used to determine if students have achieved the outcome. This should include a specific example of a question/prompt.

- Through two separate written article review assignments associated with a problem, the student will describe the approaches of each of the two disciplines to the problem presented and recommend which of the two discipline models are most appropriate.

List the Instructor's student learning outcome(s) for the course that are relevant to GEP *Interdisciplinary Perspectives Objective 2*:

Obj. 2) Identify and apply authentic connections between two or more disciplines.

3. Students will compare and contrast how each disciplines' model addresses a problem.
4. Students will analyze the relationship between each disciplines' model as they are applied to a current case study.

Measure(s) for above Outcome:

Provide a general description of the types of assignments/assessments that will be used to determine if students have achieved the outcome. This should include a specific example of a question/prompt.

- Through the team project, students will compare and contrast the four models through reflective thinking based on the DEAL (describe, examine, and articulate learning) reflective process. Students will articulate how the team integrated (or did not integrate) the four models within the delivery of a commercial video to assist prospective students to effectively make the decision to come to NC State University. Each student will articulate through writing a paper reflecting on the process for how the team made decisions around creating the commercial and how the four models discussed through the course were incorporated or not incorporated within the development of the project.

List the Instructor's student learning outcome(s) for the course that are relevant to GEP *Interdisciplinary Perspectives Objective 3*:

Obj. 3) Explore and synthesize the approaches or views of the two or more disciplines.

5. Students will creatively bring together new ideas from the four disciplines' models and present new possibilities for how to address a problem that has already occurred.

Measure(s) for above Outcome:

Provide a general description of the types of assignments/assessments that will be used to determine if students have achieved the outcome. This should include a specific example of a question/prompt.

- Through the team project, students will compare and contrast the four models through reflective thinking based on the DEAL (describe, examine, and articulate learning) reflective process. Students will articulate how the team integrated (or did not integrate) the four models within the delivery of a commercial video to assist prospective students to effectively make the decision to come to NC State University. Each student will articulate through writing a paper reflecting on the process for how the team made decisions around creating the commercial and how the four models discussed through the course were incorporated or not incorporated within the development of the project.
- The final exam will require that students describe the four models, describe the process for how they decided to come to NC State, what they would now do differently in making their decision to come to NC State and what they would recommend for future students to consider when making the decision to come to NC State University.

SECTION 2: REQUISITES AND SCHEDULING

General guidelines:

- GEP Courses should have at least 25% of seats non-restricted (i.e. available to all students).
- GEP Courses should have no more than ONE pre-requisite.
- GEP Special Topics are approved as a one-term offering.
- The course syllabus for all sections must include the GEP ***Interdisciplinary Perspectives*** category designation and GEP student learning outcomes.

What percentage of the seats offered will be open to all students? ___100_____ %

a. If seats are restricted, describe the restriction being applied.

b. Is this restriction listed in the course catalog description for the course?

List all course pre-requisites, co-requisites, and restrictive statements *(ex: Jr standing; Chemistry majors only).* ***If none, state none.***

None.

List any discipline specific background or skills that a student is expected to have prior to taking this course. If none, state none. *(ex: ability to analyze historical text; prepare a lesson plan)*

None.

If this is a 400 level and/or a dual-level course, provide a complete syllabus and include below a statement on appropriateness of this course as a general education course. For dual-level, the syllabus should reflect the difference in requirements for each level.

SECTION 3: ADDITIONAL INFORMATION

If this course is currently on another GEP course list(s), state below which category(ies).
If unsure, please check the course listing in the catalog.

Complete the following 3 questions or attach a syllabus that includes this information.

1. Title and author of any required text or publications.
Syllabus Attached.

2. Major topics to be covered and required readings including laboratory and studio topics.

3. List any required field trips, out of class activities, and/or guest speakers.

N.C. STATE UNIVERSITY
UNDERGRADUATE COURSE ACTION FORM
Effective September 2008

NOTE: Click shaded fields to type data and click on boxes to check.

5367

DEPARTMENT/PROGRAM	COMMUNICATION
COURSE PREFIX/NUMBER	COM 342
PREVIOUS PREFIX/NUMBER	COM 342
COURSE TITLE	QUALITATIVE METHODS IN COMMUNICATION RESEARCH
ABBREVIATED TITLE	QUALITATIVE RESEARCH METHODS
SCHEDULING	Fall ☒ Spring ☒ Summer ☐ Every Year ☒ Alt. Year Odd ☐ Alt. Year Even ☐ Other ☐
COURSE DELIVERY CHECK ALL THAT APPLY	ON CAMPUS ☒ DISTANCE EDUCATION ☐ ONLINE ☐ REMOTE LOCATION ☐
COURSE CREDIT/GRADING	CREDIT HOURS 3 | GRADING ABCDF ☒ S/U ☐
CONTACT HOURS *See contact/credit hour guidelines for detail.*	LECTURE 1 SEMINAR 2 LABORATORY PROBLEM STUDIO INDEPENDENT STUDY RESEARCH INTERNSHIP PRACTICUM FIELD WORK
IS COURSE REPEATABLE FOR CREDIT?	NO | # REPEATS ALLOWED 0
INSTRUCTOR(S) (NAME/RANK)	STEPHEN WILEY, ASSOCIATE PROFESSOR; DEANNA DANNELS, PROFESSOR DUAL APPOINTMENT? ☐

ANTICIPATED ENROLLMENT	Per semester 25 Per section 25 Will multiple sections be offered? Yes ☐ No ☒
PREREQUISITE(S)	COM 240
COURSE(S) TO BE COMPLETED PRIOR TO ENROLLING	ENFORCE PRE-REQUISITE CHECKING? YES
CO-REQUISITE(S)	
COURSE(S) TO BE TAKEN CONCURRENTLY WITH THIS COURSE	ENFORCE CO-REQUISITE CHECKING? NO
PRE/CO-REQUISITE FOR...	NONE
RESTRICTIVE STATEMENT (EX: MA AND AMA MAJORS ONLY)	
COURSE IS REQUIRED FOR:	LIST DEGREE KEY FOR ALL CURRICULA OR IDENTIFY MINOR IN WHICH COURSE IS OR WILL BE REQUIRED
COURSE IS AN ELECTIVE FOR:	16COMBA (16COMIOR, 16COMMED, 16COMPR, 16COMPUB) COURSE FILLS DEPARTMENTAL RESTRICTED ELECTIVE
PROPOSED EFFECTIVE DATE 1/2015	APPROVED EFFECTIVE DATE | COURSE REVIEW DUE

CATALOG DESCRIPTION: (INCLUDE ANY RESTRICTIVE, TRANSPORTATION, OR FEE STATEMENT(S)) (100 WORD LIMIT)

Introduction to qualitative methods in communication research. Research paradigms, research ethics, research design, qualitative data collection, data analysis and interpretation, written and multimedia reporting of research results.

TYPE OF PROPOSAL

- NEW COURSE ☐
- DROP COURSE ☐
- REVISE COURSE ☒
  - REVISION IN:
    - CONTENT ☒
    - PREFIX/NUMBER ☐
    - TITLE ☒
    - ABBREVIATED TITLE ☒
    - CREDIT HOURS ☐
    - CONTACT HOURS ☐
    - GRADING METHOD ☐
    - SCHEDULING ☐
    - PRE/CO-REQUISITES ☒
    - RESTRICTIVE STATEMENT ☐
    - CATALOG DESCRIPTION ☒
    - LEARNING OUTCOMES ☒
- GEP LEARNING OUTCOMES ONLY ☐
- DUAL-LEVEL COURSE ☐
- GEP COURSE ☐
  - *CHECK APPLICABLE CATEGORY BELOW:*
    - HUMANITIES ☐
    - SOCIAL SCIENCES ☐
    - MATHEMATICAL SCIENCES ☐
    - NATURAL SCIENCES ☐
    - INTERDISCIPLINARY PERSPECTIVES ☐
    - VISUAL & PERFORMING ARTS ☐
    - PE/HEALTHY LIVING ☐
    - GLOBAL KNOWLEDGE CO-REQ ☐
    - U.S. DIVERSITY CO-REQ ☐
    - THEMATIC TRACK ☐

DOCUMENTATION AS REQUIRED

(CHECK ALL THAT APPLY)

- COURSE JUSTIFICATION ☒
- PROPOSED REVISION(S) WITH REASONS ☒
- ENROLLMENT LAST 5 YEARS ☒
- NEW RESOURCES STATEMENT ☒
- CONSULTATION WITH DEPARTMENT(S) PROVIDED ☐
- SYLLABUS (OLD AND NEW) ☒
- GEP CATEGORY OBJECTIVES ☐
- GEP STUDENT LEARNING OUTCOMES ☐
- MEANS OF ASSESSING GEP OUTCOMES ☒

SIGNATURE PAGE ATTACHED

FOR COURSE ACTION FORM INSTRUCTIONS SEE
HTTP://WWW.NCSU.EDU/UAP/ACADEMIC-STANDARDS/COURSES/CRSINST.HTML

SIGNATURE PAGE

COURSE ACTION FOR COM 342

RECOMMENDED BY:

	9/9/14
HEAD, DEPARTMENT/PROGRAM	DATE

ENDORSED BY:

	9/22/14
CHAIR, COLLEGE COURSES & CURRICULA COMMITTEE	DATE
Victoria J. Gallagher	9/24/14
COLLEGE DEAN	DATE

APPROVED BY:

CHAIR, UNIVERSITY COURSES & CURRICULA COMMITTEE	DATE
CHAIR, COUNCIL ON UNDERGRADUATE EDUCATION	DATE
DEAN, DIVISION OF ACADEMIC AND STUDENT AFFAIRS (DASA)	DATE

APPROVED EFFECTIVE DATE _____

COM 342
Attachments to Course Action Form

I. Course Justification

A course in Qualitative Methods in Communication Research is needed in order to better prepare undergraduates for communication research in upper-division courses, in keeping with the department's focus on theory, methods, and application in the major. Additionally, this course will fulfill the undergraduate research methods requirement (Department Restricted Elective), which students can currently only fulfill by taking COM 386, Quantitative Communication Research Methods. The addition of Qualitative Communication Research Methods as an option will provide students with a broader range of choices and will better reflect the diversity of research methods employed in the field, where ethnographic methods and qualitative analysis are increasingly in demand. It is expected that at least half of the Communication majors will opt for this course rather than COM 386. New resources are not needed, as the course can be delivered using existing resources. In addition to at least four current tenure-line faculty interested in teaching the course, doctoral students who have completed COM 542, Qualitative Methods in Communication Research, will be qualified and available to staff COM 342.

II. Proposed Revisions with Reasons

This revision broadens the scope of an existing course, "Interviewing" (which had not been offered for a number of years), and shifts the focus from professional interviewing skills to qualitative research methods. While the focus of the revised course is on research methods, it will continue to cover basic interviewing skills that are useful in a broad range of contexts, including professional ones, thus enfolding the objectives of the original course into a new, more broadly defined one.

1. Original Content: Theory and practice of effective communication skills in various types of professional interviews. In-class practice with interviewing skills.
   Proposed Content: Research paradigms in qualitative communication research, research ethics, research design, research-oriented interviewing and ethnographic observation, qualitative data analysis and interpretation, written and multimedia reporting of qualitative research results.

2. Original Title: Interviewing
   Proposed Title: Qualitative Methods in Communication Research

3. Original Abbreviated Title: Interviewing
   Proposed Abbreviated Title: Qualitative Research Methods

4. Original Pre/Co-requisites: Junior standing
   Proposed Pre/Co-requisites: COM 240 (pre/co-requisite)

5. Original Catalog Description: Theory and practice of effective communication skills applied in various types of professional interviews. In-class interviewing.

   Proposed Catalog Description: Introduction to qualitative methods in communication research. Research paradigms, research ethics, research design, qualitative data collection, data analysis and interpretation, written and multimedia reporting of research results.

6. Original Learning Outcomes:
   1. Identify various types of interviews
   2. Identify specific techniques that are used in the opening, body, and close of the interview
   3. Eliminate common interviewing mistakes
   4. Conduct an effective interview

   Proposed Learning Outcomes. Students will be able to:
   1. identify the key theoretical perspectives, methodological issues, concepts, and research practices that inform and comprise qualitative inquiry;

2. perform qualitative data collection and analysis procedures that are reflexive, credible, rigorous, and ethically sound, including participant observation, offline/online ethnography, in-depth interviewing, and mobile methods;
3. conduct qualitative data analysis drawing on accepted analytical methods such as grounded theory, open coding, and constant comparison;
4. write a qualitative research report that is clear, organized, and insightful;
5. employ effective writing and speaking skills in the completion of all course requirements;
6. thoroughly understand and follow the principles of ethical research and academic integrity that are recognized in the field of communication research and upheld by the academic community of NC State University.

III. Enrollment for Last Five Years

The course was offered as COM 498 (special topics) in Fall 2012 and Spring 2013. Enrollment was as follows:

Academic Year	Fall	Spring
2013		16
2012	13	

Enrollment is expected to increase when the course is formalized and students are made aware that it can be used to fulfill the Department Restricted Elective.

IV. New Resources Statement:

This course was offered in Fall 2012 and Spring 2013 using existing faculty and departmental resources. This course can be offered through a reallocation of existing resources. In addition to at least four current tenure-line faculty interested in teaching the course, doctoral students who have completed COM 542, Qualitative Methods in Communication Research, will be qualified and available to staff COM 342.

V. Proposed Syllabus:

Please see attached.

Qualitative Research Methods in Communication
COM 342 (3 credits)
Spring 2013
Tuesdays 3:00-5:45 p.m.
Winston 209

Prof. Steve Wiley
Office: Winston 202
Office hours: by appointment
steve_wiley@ncsu.edu
919-302-6418

Catalog Description

Introduction to the use of qualitative methods in communication research. Research paradigms, research ethics, research design, qualitative data collection, data analysis and interpretation, written and multimedia reporting of research results.

Course Overview

How do texting, social networking, mobile telephony, video games, television, and other technically mediated communication practices play a part in social interactions and interpersonal communication on a day-to-day basis? How do we navigate the increasingly complex media environment, in which emerging technologies such as YouTube, Hulu, webcams, HD home theater, "ambient" television, and mobile screens on smart phones and tablet computers alter what we mean by *television* (seeing at a distance)? How do we learn about the world as news sources and information-gathering options multiply? How do we create, modify, and inhabit soundscapes through the production, purchase, pirating, and remixing of music and video? In this new landscape of mobile technologies, ubiquitous screens, proliferating information sources, and constantly shifting media practices, how do we experience place, identity, connectivity, immersion, and presence? The media and technology landscape is changing so rapidly that researchers, policymakers, activists, and corporate/organizational strategists have only limited understanding of the role of technology in people's *actual practices and experiences of everyday* life.

Qualitative Research Methods in Communication will introduce you to research techniques for understanding everyday communication, including the uses and experiences of media and communication technologies. We will read about, practice, and then apply, "in the field," both classic techniques and new methods, including participant observation, online/offline ethnography, in-depth interviewing, and mobile methods. You will learn specific qualitative research and analysis skills while gaining familiarity with general theories, issues, and problems in qualitative research. By the end of this course, you will have two things: a better understanding of how a specific community or interest group navigates the new media environment, and a toolbox with several effective research tools for investigating the significance of media technologies in everyday life. This course can be used to satisfy the Restricted Elective requirement for students in Communication Media (16COMMED) and the Methods requirement for students in Interpersonal, Organizational, and Rhetorical Communication (16COMIOR).

Objectives

By the end of this course, you will be able to:

- Identify the key theoretical perspectives, methodological issues, concepts, and research practices that inform and comprise qualitative inquiry;
- Perform qualitative data collection and analysis procedures that are reflexive, credible, rigorous, and ethically sound, including participant observation, offline/online ethnography, in-depth interviewing, and mobile methods;
- Conduct qualitative data analysis drawing on accepted analytical methods such as grounded theory, open coding, and constant comparison;
- Write a qualitative research report that is clear, organized, and insightful;
- Employ effective writing and speaking skills in the completion of all course requirements;
- Thoroughly understand and follow the principles of ethical research and academic integrity that are recognized in the field of communication research and upheld by the academic community of NC State University.

Pre-requisites: COM 240

GEP requirements fulfilled: None

Required Course Materials

Lindlof, Thomas R., and Taylor, Bryan C. (2010). *Qualitative Communication Research Methods, 2nd ed.* Thousand Oaks, CA, and London: SAGE. $65.91. Please purchase this book.

Additional required readings will be on electronic reserves. The link for our course is https://reserves.lib.ncsu.edu/index.php?cmd=editClass&ci=152430.

Another book I highly recommend is *The Craft of Research*, by Wayne C. Booth, Gregory G. Colomb, and Joseph M. Williams (Chicago: University of Chicago press, 2003). It is available in many bookstores and is on reserve in the library.

You will also need a sturdy notebook to use for note-taking as you conduct fieldwork. A spiral notebook is inadequate because it is flexible. A hard, cardboard-covered "composition" book will do, as will any hardcover blank book available for purchase in bookstores. The notebook should be plain rather than colorful or decorative so that you do not draw attention to yourself when conducting fieldwork and interviews. Digital audio recorders, video cameras, tablet computers, laptops, cell phones, and other mobile devices may also work for note-taking and interviewing, depending on the methods to be used and the context.

Transportation and Safety

Students are responsible for providing their own transportation to research sites for fieldwork. Students also assume any and all risks associated with the completion of fieldwork. Such risks should be minimal.

We will make extensive use of a course Moodle site, **http://wolfware.ncsu.edu**, where you will post individual and team assignments and carry out team planning, analysis, and writing. Students may be required to disclose personally identifiable information to other students in the course, via electronic tools like email or web-postings, where relevant to the course. Examples include online discussions of class topics, and posting of student coursework. All students are expected to respect the privacy of each other by not sharing or using such information outside the course. (http://policies.ncsu.edu/regulation/reg-02-20-07).

A note about my teaching philosophy

Teaching is not about the transfer of information from the professor to the student. The professor is not an expert who delivers special knowledge which the student must absorb, reproduce, and apply. A professor is not "a sage on the stage" but rather "a guide on the side." In other words, my role is to guide us, as a group, through the collective consideration of a specific terrain of knowledge and the process of designing, carrying out, and reporting on research. In this course, I expect active, engaged contributions from each person. You should come to class prepared to summarize, discuss, and apply the concepts and techniques introduced in lectures and readings. Your well-informed, constructive in-class contributions therefore count as a substantial portion of your course grade.

Requirements and Grading

This course will be conducted as a lecture/discussion, with brief introductory lectures each week, in-class activities, and significant time devoted to discussion and team research workshops. The goals of our weekly class meetings will be to develop an understanding of the concepts, debates, and methods that characterize qualitative research; to practice and refine methods for conducting, analyzing, and reporting research; and to provide each other with workshop-style feedback as team research projects take shape. Grades will be based on informed, active participation in weekly discussion; an in-class midterm exam, and a series of individual and team assignments

culminating in a final team research paper and presentation. Individual contributions to the team research project will be evaluated using a confidential peer-review form, and each team member's grade will be determined, in part, by the evaluations he or she receives from the other team members. Please see the attached Course Schedule for due dates for readings and assignments. Detailed assignment instructions will be distributed separately.

Attendance, preparation, and contributions to class meetings (20 points)

High-quality discussion is one of the most valuable potential benefits of a college course, and I ask that each person help cultivate that type of communication. To do so, *it is critical that you prepare thoroughly outside of class meetings by completing all readings, taking thorough reading notes, and coming to class prepared to participate actively, appropriately, and constructively.* If your preparation is unsatisfactory or your participation is inadequate or inappropriate, I will let you know before the middle of the semester so you have time to improve. The following should act as a *guideline* for helping you understand participation grades:

A - Student attends class, is always attentive, actively engages in all activities and shares relevant, thoughtful and insightful comments.

B - Student attends class, is mostly attentive, actively engages in most activities with relevant comments.

C - Student attends class, is marginally attentive, and engages in some activities with relevant comments.

D - Student attends class, is distracted, and reluctantly engages in activities or provides irrelevant or mundane comments.

F - Student is absent from class, is unconscious in class, does not participate, and/or is disruptive.

Also, although it seems odd to have to say it, you can't participate actively unless you show up consistently. Because this course meets only once per week, missing a class is like missing two or three classes in another course. Therefore, **each *unexcused* absence will result in a one-grade reduction of your course grade.** Excused absences must be documented appropriately as per university policy. For more information, refer to the "absences" policy below and the University Attendance Policy at http://policies.ncsu.edu/regulation/reg-02-20-03.

Midterm Exam (20 points)

We will have a midterm exam covering the first six weeks of readings. The purpose of the exam is to assess your comprehension of the readings and your ability to apply key concepts from the readings to a hypothetical research project. *Exams will be in-class and open-note, but closed-book*, therefore it is critical that you take complete, detailed reading notes and lecture notes every week.

Research Assignments (60 points)

Your major responsibility in this class is to carry out a collaborative (team) research project culminating in a 20-page research paper. Teams will be comprised of 3 or 4 members and will define a common research topic and question, as well as a specific group, community, subculture, movement, place, or network to study. The project will be based on a series of individual *and* team assignments that will be due in stages. They are as follows:

Assignment 1: Team Topic Proposal (2 points; *team* assignment)

Assignment 2: Preliminary Annotated Source List (3 points; *team* assignment)

Assignment 3: Team Project Proposal w/Informed Consent form (5 points; *team* assignment)

Assignment 4: Offline/Online Ethnographic Observation (10 pts; *individual* assignment)

Assignment 5: In-depth Interviews (10 points; *individual* assignment)

Assignment 6: Preliminary Analysis (5 points; *team* assignment)

Assignment 7: Research Presentation (5 points; *team* assignment)

Assignment 8: Final Paper (10 points; *team* assignment)

Peer Evaluation: 10 points

The final research paper must clearly define a significant trend, issue, or problem that you have *discovered* through your research and analysis. It must be based on systematic analysis of your research data and incorporate a substantial number of examples and quotes from your interviews and field notes. You must connect your research-based observations to a larger topic situated within the broader intellectual conversation(s) on that topic, drawing on and citing at least three scholarly sources per team member from the relevant scholarly literature. Research papers will be evaluated based on the thoroughness of the research, the care and quality of the analysis, the appropriate use of specific examples from your research, the proper use and citation of source material, the logic of the paper's organization, and the clarity of the writing. Research projects will be due in stages as indicated on the Course Calendar. Detailed assignment instructions are provided separately.

During the final weeks of the semester, your research team will present the findings of your research in a 20-minute oral presentation. The presentation should briefly describe the topic analyzed and its significance, briefly refer to the most relevant scholarly work on the topic, explain the research methods employed, present the findings, and discuss the implications of the study. Presentations will be evaluated based on their fulfillment of the above requirements and on the clarity, organization, and effectiveness of the oral communication.

Individual contributions to the team research project will be evaluated using a confidential peer-review form, and each team member's grade on the Research Presentation and Final Paper will be determined, in part, by the evaluations he or she receives from the other team members.

IMPORTANT NOTE:
Students who plagiarize in any assignment will be reported to the Office of Student Conduct and will receive a zero for the assignment, which will most likely result in a failing grade for the course. See additional information on academic integrity below.

ABSENCE POLICY
Per University regulations, excused absences must fall into one of two categories: sanctioned anticipated situations and documented emergency situations. Excuses for anticipated situations (e.g., participation in official University functions, court attendance, religious observances, or military duty) *must be submitted in writing at the beginning of the semester or one week prior to the anticipated absence.* Emergency absences (e.g., student illness, injury or death of immediate family member, *must be documented by the Student Organization Resource Center 515-3323)* within one week following the emergency. Make-up work will be allowed only in situations where absences were excused. Please consult the following website for further information on University attendance regulations:
http://policies.ncsu.edu/regulation/reg-02-20-03

ACADEMIC INTEGRITY
Strict standards of academic honesty will be enforced according to the University policy on academic integrity found in the code of student conduct. NC State Students are bound to an honor code, which states: "I have neither given nor received unauthorized aid on this test or assignment." Submitting an assignment, whether in person or through the course web site, means that you have neither given nor received unauthorized aid. Please see the Code of Student Conduct policy (NCSU POL11.35.1, Code of Student Conduct policy (NCSU POL11.35.1)) and the Pack Pledge. Please consult the following website for further details on student conduct:
http://studentconduct.ncsu.edu/

STUDENTS WITH DISABILITIES
"Reasonable accommodations will be made for students with verifiable disabilities. In order to take advantage of available accommodations, students must register with Disability Services for Students at 1900 Student Health

Center, Campus Box 7509, 919-515-7653. For more information on NC State's policy on working with students with disabilities, please see the Academic Accommodations for Students with Disabilities Regulation (REG02.20.01)"

INCOMPLETE AND LATE ASSIGNMENTS

Points earned for incomplete assignments will be reduced in proportion to the degree to which the assignment was completed. For example, an exam requiring three essays, with only one essay completed, will earn one third of the essay point total. Points earned for late assignments will be reduced by 50% if received within 24 hours of due date and time due. Assignments received later will not be accepted unless in accordance with the excused absence policy as referenced above.

INCOMPLETE GRADE POLICY

Students will not be given a temporary grade of IN (incomplete) unless they have attended classes regularly for most of the semester, have completed at least 60% of required work, have missed required work as a result of factors beyond their control, and have submitted satisfactory documentary evidence. An IN grade not removed by the end of the next semester in which the student is enrolled or by the end of twelve months, whichever is earlier, will automatically become an F (unless the student can present a compelling, well-documented case for the extension). For the NC State policy on grading and IN grades, see http://policies.ncsu.edu/regulation/reg-02-50-03

CREDIT-ONLY POLICY

In order to receive a grade of S, students are required to take all exams and quizzes, complete all assignments, and earn a grade of C- or better. Credit-Only courses can only be included under the Free Elective category of the student's curriculum. Conversion from letter grading to credit only (S/U) grading is subject to university deadlines. Refer to the Registration and Records calendar for deadlines related to grading. For more details refer to: http://policies.ncsu.edu/regulation/reg-02-20-15

AUDIT POLICY

Auditors must consult with the instructor. For details refer to: http://policies.ncsu.edu/regulation/reg-02-20-04

ANTI-DISCRIMINATION STATEMENT

NC State University provides equality of opportunity in education and employment for all students and employees. Accordingly, NC State affirms its commitment to maintain a work environment for all employees and an academic environment for all students that is free from all forms of discrimination. Discrimination based on race, color, religion, creed, sex, national origin, age, disability, veteran status, or sexual orientation is a violation of state and federal law and/or NC State University policy and will not be tolerated. Harassment of any person (either in the form of quid pro quo or creation of a hostile environment) based on race, color, religion, creed, sex, national origin, age, disability, veteran status, or sexual orientation also is a violation of state and federal law and/or NC State University policy and will not be tolerated. Retaliation against any person who complains about discrimination is also prohibited. NC State's policies and regulations covering discrimination, harassment, and retaliation may be accessed at http://policies.ncsu.edu/policy/pol-04-25-05

N.C. State Polices, Regulations, and Rules (PRR)

Students are responsible for reviewing the NC State University PRR's located at http://oucc.ncsu.edu/course-rights-and-responsibilities which pertains to their course rights and responsibilities.

STUDENT RESOURCES

- Writing and Speaking Tutorial Services: http://www.ncsu.edu/tutorial_center/writespeak/
- Academic Policies: www.ncsu.edu/policies/sitemap.php#acad-pols_regs
- University Career Center: http://www.ncsu.edu/career/
- Disability Services Office (DSO): http://www.ncsu.edu/dso/
- Adverse Weather: Complete information about adverse weather policies is available at http://www.ncsu.edu/human_resources/benefits/leave/adverseweather.php

- Check email, news, the NCSU home page, or call 513-8888 for the latest information.
- NCSU Library Course Reserves: http://reserves.lib.ncsu.edu/
- NCSU Institutional Review Board: http://www.ncsu.edu/sparcs/IRB/
- Writing and Speaking Tutorial Services: www.ncsu.edu/tutorial_center/writespeak/index.htm
- Academic Policies: www.ncsu.edu/policies/sitemap.php#acad-pols_regs
- Office of Student Conduct: http://www.ncsu.edu/student_conduct/
- Additional information on academic integrity: http://www.ncsu.edu/stud_affairs/osc/academic_integrity/academic_resources.php
- Information about information technology systems at NC State: https://sysnews.ncsu.edu

CHASS CAREER SERVICES:

CHASS Career Services are available through the Career Development Center. Your career contacts are: Jane Matthews and Woody Catoe. Make appointments through ePACK – ncsu.edu/epack.

An incomplete list of relevant scholarly journals

- American Anthropologist
- American Ethnologist
- Communication and Critical/Cultural Studies
- Communication, Culture, and Critique
- Communication Research
- Critical Studies in Media Communication
- Cultural Studies
- Culture Machine
- Discourse and Society
- Ethnography
- Explorations on Media Ecology
- International Journal of Qualitative Methods
- Journal of African Cultural Studies
- Journal of Computer-Mediated Communication
- Journal of Contemporary Ethnography
- Journal of European Cultural Studies
- Media, Culture & Society
- Mobilities
- Postmodern Culture
- Public Culture
- Qualitative Inquiry
- Qualitative Research
- Qualitative Research Reports in Communication
- Qualitative Research in Psychology
- Qualitative Sociology
- Qualitative Sociology Review
- Qualitative Studies in Education
- Space & Culture
- Symbolic Interaction
- Visual Anthropology Review
- Visual Studies

Also consult these two very comprehensive lists:

http://www.slu.edu/organizations/qrc/ORjournals.html
http://www.nova.edu/ssss/OR/calls.html

COM 342
Qualitative Methods in Communication Research
Assignment Instructions
Spring 2013

Assignment 1: Team Topic Proposal (2 points; *team* assignment)

Write a brief proposal (5 paragraphs, 2-3 pages, double-spaced, typed) in which you do the following:

1. First two paragraphs: *identify a current problem or issue involving communication.*

   In this first section of your proposal, please incorporate and draw on at least two statistics, examples, or quotations from at least one source for each team member and cite them using an accepted bibliographic style.

2. Next two paragraphs: *define your broad research topic and your narrow research topic.*
   Read Booth, et al., *The Craft of Research*, Ch. 3, for guidance on how to do this.

3. Final paragraph: *list 3-5 researchable questions.*
   These should be narrow enough to be researched in one semester.

4. *Be sure all of your team members' names are on your assignment. Upload your topic proposal to your team's discussion forum in Moodle. Bring a printed copy of your topic proposal to class on the date indicated in the course calendar.*

Assignment 2: Preliminary Annotated Source List (3 points; *team* assignment)

The purpose of this assignment is to get you and your team started on finding and evaluating sources for your research paper. It is easy to find material that has some connection to your topic. This is especially true on the Internet, where within a few seconds you can always find someone saying something about anything. Finding legitimate, trustworthy, and useful information is a different story. It takes some careful detective work, multiple visits to the library, note taking, and reflection. Your topic is likely to change somewhat as you begin to read what others have said about it. Therefore, finding, evaluating, and selecting sources is an important part of defining the topic itself.

Begin by identifying the Library of Congress (L.C.) subject area your topic is likely to fall under. If you have trouble doing this, ask a reference librarian for help, or just jump in by searching the online catalog (http://catalog.lib.ncsu.edu/) using the "Subject heading" option, exploring the results of various keywords. Once you have figured out which subject heading(s) are relevant to your topic, do a subject search to find actual sources. Remember that sources not held by NCSU may be available through Duke, UNC, and NCCU. You might also try a keyword search in Google Scholar and, once you find some relevant articles, look for more research by the same author and more recent sources citing the articles you found. Repeat this process using other appropriate indexes of scholarly journals, such as the *Communication and Mass Media Complete* database: http://www.lib.ncsu.edu/databases/more_info.php?database=27045.

Once you have found two or three books or articles relevant to your topic, check the bibliographies at the end of each one to identify further, possibly more relevant, sources. With your team members, try to come up with a list of 25-30 potential articles or books.

Skim over the sources you've found to pick 15-20 that will be truly useful for your research paper. This can be difficult, and you will be grappling with narrowing down your topic as you read. You may need to pause during your reading to rethink the topic based on what you are learning from the sources. That is not bad! It is a sign that you are learning and refining your view of the issue.

You may draw on journalistic sources if they are from credible publications, but **your initial list must have at least three annotated sources per team member, including at least two scholarly sources per team member.** Scholarly sources are articles published in refereed academic journals and books written by academic researchers and published by university presses. If you have doubts about whether a source is "scholarly" or not, ask a librarian. If he or she is uncertain, ask me. You may use as many "non-scholarly" sources as you want, as you have met the minimum requirement for scholarly ones.

Once you have narrowed down your source list to 15 or so, choose at least three sources per team member to annotate. Skim over each source, taking brief notes on the main point, the key findings relevant to your topic, and any possible problems with the research. For each source, write up a 3-4-sentence annotation that sums up these elements. The purpose of this is to make sure you actually read what's on your bibliography, and to get you started in identifying which sources are truly useful and relevant to your topic. These annotations will also help you when you go back to take more detailed research notes later.

When you are done, type up your source list using full citations in alphabetical order by authors' last names. Below each source, include your short annotation. You may use any standard citation style, but I prefer APA. The NCSU Library's *Citation Builder* tool is useful: following online guides are helpful: http://www.lib.ncsu.edu/citationbuilder/.

Upload your topic proposal to your team's discussion forum in Moodle. Bring a printed copy of your topic proposal to class on the date indicated in the course calendar.

Assignment 3: Team Project Proposal with Informed Consent Form (5 points; *team* assignment)

The purpose of this assignment is to define a research project that your team will conduct during the course of the semester. Your proposal should be 5-6 pages long (double-spaced). It should be submitted in MS Word format, uploaded to your team's Moodle page. It should include the following elements, in order:

- Cover sheet
  Working title for the project, Team members' full names, Team members' contact information (email addresses and phone numbers for team communication)

- Research topic
  Provide a quotation, statistic, or story from a recent journalistic or scholarly article in your Annotated Source List that illustrates a new trend, practice, problem, or issue related to media and technology in everyday life. The purpose of the quote, statistic, or story is to introduce your research topic and to lead into the questions that you want to answer. After presenting the quote, define the significance of the phenomenon that the quote illustrates (explain what questions, issues, or interesting problems it raises), then pose two or three research questions that you would like to answer. Note: please do not define your topic in terms of a specific technology (e.g. Facebook, Foursquare, or texting). Instead, define it in terms of a trend, practice, problem, or issue—for example; the use of social media to

reestablish connections with old friends or find new ones; the shifting communication strategies used by young people to maintain relationships with friends and family members of different generations; the national, cultural, and other criteria used to select news and information media; changing patterns of music consumption based on algorithmic matching).

- Population of interest and research sites
  Carefully define your population of interest: the group, community, subculture, social movement, or network that your team plans to study. This should be a group of people for whom the phenomenon you are studying is significant. Also define the sites—both online and offline—where you will actually carry out the research. These should be concrete places that you can visit in person or online to observe the behavior of the people in your population of interest and, eventually, to recruit interviewees. You should base your selection of sites on your initial understanding of the ways in which this group, subculture, movement, etc., uses online and offline spaces and channels to connect; however, you may add new sites as you discover, through your research, the channels and places that are important for your population.

- Methods
  Describe the methods you will use to conduct your research. Incorporate the list of required individual and team assignments from the course syllabus, but be specific about what methods you will use, how participants will be contacted, how observations and interviews will be carried out, which team members will carry out which components of the project in which sites, etc.

- Informed Consent Form (follow the guidelines and template on the NCSU IRB website)

Assignment 4: Offline/Online Ethnographic Observation (10 pts; *individual* assignment)

The purpose of this assignment is to conduct participant observation in at least two specific sites of activity, online and offline, that are important for your population of interest. The team will define the list of sites to be observed and then each team member will carry out the assignment individually and upload his or her assignment to the team Moodle page.

Ethnography means "writing about culture," and your aim in this assignment is to make careful written notes on your observations of the settings, events, activities, roles, and experiences of your research participants. You will visit one offline site (a meeting, a public gathering, a particular place, an event) and one online site (an online game, a virtual world, a web-based discussion forum, a Facebook page, a series of text messages, emails, and/or voicemails) that are of importance to your population of study. You will use your field notebook, laptop, or other device to maintain a log of your field observations (date, time, place, event, participants, notes/reflections), which will include at least three hours of participant observation, at least one of which must be "offline" (face-to-face). For detailed instructions on participant observation and note-taking, see Lindlof & Taylor, Ch. 5.

When you have completed your three hours of observation, review your notes and type up a brief ethnographic report (3-5 pages) in which you summarize your observations and present a preliminary analysis of your findings. Save your report in MS Word format and upload it to your team's Moodle page.

Assignment 5: In-depth Interviews (10 points; *individual* assignment)

The purpose of this assignment is to gain experience conducing individual in-depth interviews. For this assignment, you are to complete two separate interviews of one to two hours each. Your interviews

should follow a semi-structured or open-ended approach (see Lindlof & Taylor, Ch. 6). Be sure to take two copies of your Informed Consent form to each interview: one to give the interviewee and one to have them sign, to be kept for your records.

You should record your interviews on a digital audio recorder, tape recorder, cell phone, or laptop, and then transcribe the interviews into a Word document or Excel spreadsheet. You are expected to transcribe the full interview. However, if your interview is longer than an hour and there are sections that are not relevant for your research, you may choose to skip those sections, indicating in your transcript where you have skipped and how many minutes were skipped.

In order to protect your interviewees' privacy, be sure not to identify them by name in your interview or transcripts.

After you have transcribed your interviews, upload the transcriptions to your team's Moodle forum for analysis.

Assignment 6: Preliminary Analysis (5 points; *team* assignment)

This is a team assignment. The purpose is for your team to analyze the interviews and site observations completed in assignments 4 and 5. Please follow these steps:

1. Meet face-to-face as a team with copies of the observation notes (Assignment 4) and interview transcripts (Assignment 5) for each person.

2. Read over all of the materials, using a Grounded Theory approach and "open coding" to discover possible themes, as discussed and demonstrated in class (see Lindlof & Taylor, Ch. 7, and Bernard & Ryan, Ch. 12 for guidance on Grounded Theory and coding).

3. Discuss your initial ideas about codes and themes with your teammates. Settle on a single set of 3-4 themes that will be the focus of your analysis.

4. Return to your interview transcripts and observation notes and code the data for the themes you have identified. As you do so, create a basic code book to keep track of your codes. For each code, provide a mnemonic, a definition of the code, and an example.

5. As a team, write a draft of your analysis, following the instructions for section 3 of the final paper ("Analysis"). Be sure to include examples for each theme you discuss, citing the examples as follows:

   For interviews: (*First name, Last name, Personal Communication, Interview date*)

   For observations: (Field notes, *Observation date*)

   Unless you have obtained permission from your participants to use their real names, be sure to use pseudonyms when citing them or discussing an example in your paper.

6. Upload your preliminary analysis to your team's Moodle forum.

Assignment 7: Research Presentation (5 points; *team* assignment)

During the final class period, your team will present the findings of your research project in a 20-minute oral presentation. Each team member should play an active and equal role in the presentation. Dress

casually but appropriately. Speak loudly, clearly, and to the audience. Use of PowerPoint is optional and should not be used excessively. The presentation should briefly describe the topic analyzed and its significance, briefly refer to the most relevant scholarly work on the topic, explain the research methods employed, and present the findings, providing several interesting examples (quotes and stories) to illustrate key points. Presentations will be evaluated based on their fulfillment of the above requirements and on the clarity, organization, and effectiveness of the oral communication.

Assignment 8: Final Paper (10 points; *team* assignment)

Your final assignment of the course is a team research paper. The paper should be 15-20 pages long (not including works cited or appendices), double spaced, with 1" margins and 12 pt. Times Roman font. It should include the following sections:

1. Introduction, brief literature review, and research questions (2-3 pages)
   Introduce your paper's topic: explain the focus of the paper and the issues it addresses, drawing on (and citing) at least <u>one</u> scholarly source on your topic per team member. Your introduction should end with a statement of your research questions, followed by a "road map" for the rest of the paper (a brief explanation of the paper's structure). You may revise the "Research Topic" section from your Project Proposal for this section of the paper, but be sure to revise it so that it fits with what you actually ended up focusing on in your interviews and observations.
2. Methods (3-4 pages)
   In this section, explain your methods: where and how you conducted observations, how you selected interviewees, how you conducted the interviews, and how you recorded observations and interviews. Discuss any problems you encountered and include your observations about how well your methods worked.
3. Analysis (7-9 pages)
   This is the main section of your paper. You should organize it into subsections based on the themes you identified in your analysis of your ethnographic observations and your interviews. For each theme, explain your interpretation of the theme and include several examples to illustrate your points (quotations from your interviews and stories about things that happened during your observations). This section should give the reader a rich understanding of the culture of the people you observed and interviewed. For advice on interpretation, see Lindlof & Taylor, Ch. 8.
4. Conclusions (3-4 pages)
   Summarize your findings and explain how you have answered your research questions (or not). Discuss any limitations of your study. Reflect on the ways in which this research project could be extended in the future.
5. Works Cited (APA format preferred, but MLA, Harvard, or Chicago style also acceptable)
6. Appendices
   a. Informed Consent form
   b. Online and Offline sites observed
   c. Interview questions

Important note: the average of the peer evaluations of each team member's contributions will account for 10 of the 60 points that constitute the individual grade for the team research project.

COM 342

Qualitative Methods in Communication Research

Course Calendar

Spring 2013

Lindlof & Taylor (2010) is the required book. The remaining readings are available via the NCSU Library's electronic reserve system: https://reserves.lib.ncsu.edu/index.php?cmd=editClass&cl=152451

Date	Topic	Readings	Research Tasks / Assignments
Jan 8	Introductions and overview	No readings assigned	Brainstorm research topic ideas Begin formation of research teams. Begin work on the Team Topic Proposal and finding articles for the Preliminary Annoated Source List
Jan 15	Theoretical Frameworks, Grounded Theory, Research Questions	Lindlof & Taylor, Ch. 1 Booth (1995)	In class: finalize research teams and refine topic ideas; continue finding and reading scholarly sources on your topic
Jan 22	Theoretical Frameworks, contd.	Lindlof & Taylor, Ch. 2	Before class: upload a *draft* of your Team Topic Proposal and Preliminary Annotated Source List to your team forum in Moodle. Bring copies of both assignments to class.
Jan 29	The Politics and Ethics of Research	Denzin & Lincoln (2011) Van Maanen (1988) Gupta & Ferguson (1997)	Before class: upload *final* **Team Topic Proposal** and **Preliminary Annotated Source List** to your team forum in Moodle
Feb 5	Research Design	Lindlof & Taylor, Ch. 3 Bernard & Ryan, Ch. 12	In class: teams present a *draft* of the **Team Project Proposal** for discussion and peer critique
Feb 12	Research Design, contd. Gaining Access	Lindlof & Taylor, Ch. 4 NCSU IRB website: http://www.ncsu.edu/sparcs/irb/	Before class: upload final **Team Project Proposal and Informed Consent form** to your team forum in Moodle. IRB: http://research.ncsu.edu/sparcs-docs/irb/IRB_basics_for_investigators.pdf Begin fieldwork and interviews after receiving approval from Wiley
Feb 19	Online/offline	Taylor, TL (1999) Tutt (2008) Hine (2007b)	Continue fieldwork and interviews
Feb 26	Mobile methods	Büscher & Urry (2009) Marcus (1995) Brown & Durrheim (2009)	**Midterm exam** (in-class, open note) Continue fieldwork and interviews Begin interview transcriptions
Mar 5	No class—Spring Break		

Mar 12	Field Observation, Interviews, and Notetaking	Lindlof & Taylor, Ch. 5	Continue fieldwork, interviews, and transcription
Mar 19	Field Observation, Interviews, and Notetaking	Lindlof & Taylor, Ch. 6	Before class: upload **Ethnographic Observation** assignment to your team forum in Moodle. Continue fieldwork, interviews, and transcription
Mar 26	From Data to Analysis	Lindlof & Taylor, Ch. 7	Before class: upload **In-depth Interview** transcriptions to team forum in Moodle Begin analysis
Apr 2	Analysis and Interpretation	No readings assigned	Continue analysis In class: report on open coding of interviews and emerging themes
Apr 9	Analysis and Interpretation	No readings assigned	Continue analysis Before class: upload **Preliminary Analysis** to team forum in Moodle
Apr 16	Writing	Lindlof & Taylor, Ch. 9	**In class: Team Research Presentations**
Apr 23	Writing	No readings assigned	**In class: Team Research Presentations** Upload **Final Research Paper** to Moodle
May 1	No class—Finals Week		There is no final exam for this course

5367_COM 342

Source: Syllabus must include requirements at **http://policies.ncsu.edu/regulation/reg-02-20-07**
Tool: **http://delta.ncsu.edu/apps/syllabus_tool/**

2. INFORMATION TO INCLUDE IN SYLLABUS

A course syllabus must include the information listed below. **The language enclosed within quotes in sections 2.15, 2.17 and, if applicable, section 2.16, should be used without changes.** For convenience a syllabus tool is available at http://delta.ncsu.edu/apps/syllabus_tool/

2.1. Instructor & Course Information
__ Instructor's name
__ Office address
__ Telephone number
__ E-mail address
__ Regularly scheduled class meeting times
__ Office hours for out-of-class consultation
__ Course prefix and number
__ Course title
__ Credit hours
__ Semester

2.2. Course Restrictions
__ Course prerequisites, co-requisites or statement on enrollment restrictions. If none, state "none".

2.3. GEP
__ Designation of course as fulfilling a General Education Program (GEP). If none, state "none". GEP information in the syllabus should include the GEP category or categories (such as Natural Sciences or Humanities), and whether the course satisfies a GEP co-requisite(s)

2.4. Student learning outcomes.
__ Student learning outcomes. (For multi-sections courses, SLO's should not differ significantly.) Include the learning outcomes related to GEP objectives, if applicable. GEP objectives can be found at **http://www.ncsu.edu/uap/academic-standards/gep/gepcategories.html.**

2.5. Student expenses.
__ List all required textbook(s) and other instructional material (ex: project supplies, laptop) ;
__ Cost of each textbook;
__ For each required textbook, include the author, title, and date or edition.
__ Statement on required expenses (e.g., lane rental at the bowling alley, museum admission fee, field trip costs, liability insurance), if applicable.

2.6. Course Information.
__ Course overview including at least the catalog description.

2.7. Course structure.
__ Explanation of how the course operates (such as group activities, lectures, discussion, labs, field trips, studio, etc.).

2.8. Weekly course schedule
__ Note in the syllabus that the course schedule is subject to change with appropriate notification to students)
__ List of topics and approximate time allocated to each major topic.
__ Projected schedule of required readings, assignments, quizzes, and tests.
__ Required field trips and other out-of-class activities, if any.
__ Laboratory, studio, or problem session topics, if any.

2.9 Statement on transportation, if applicable.
__ (If applicable) Students must be informed whenever they must provide their own transportation to a field trip or internship site.

2.10 Safety
__ (If applicable) Statement on safety and risk assumption in courses requiring a laboratory, physical activity, field trips, studios and other special activities. (Consult with your department on appropriate wording.) Safety issues must be part of the course schedule at the first opportunity.

2.11 Grading. Detailed explanation of how grades are determined including:
__ The relative value of the various evaluation components of the course, (the portion of the grade that derives from quizzes, tests, final exam, projects, attendance, participation, etc.) and the specific expectation for each component. When attendance and/or participation are graded, the requirements for earning full value must be explained.
__ The conversion system from numerical to letter grading, if applicable. The University's regulation on grades and grade point average can be found at **http://policies.ncsu.edu/regulation/reg-02-50-03**

2.12 Late Assignments
__ Instructor's policy on late assignments, including the impact of late assignments on the grading of the assignment and the course

2. 13. Attendance/Absence Policy: Refer to Attendance Regulation (NCSU REG02.20.03).
__ The instructor's attendance policy, including procedures for submitting excuses and for scheduling makeup work when the excuses are accepted, must be explained.
Note: Excuses for unanticipated absences must be reported to the instructor no more than one week after the return to class.
__ Instructors may use reasonable academic penalties commensurate with the importance of the work missed because of unexcused absences. Penalties associated with the number of absences in a course must be explicitly explained.
__ The instructor shall determine the acceptable number of excused absences in his/her course. A reasonable number of anticipated University excused absences as defined per the University's Attendance Regulation (NCSU REG02.20.03) shall be accepted. **http://policies.ncsu.edu/regulation/reg-02-20-03**

2.14 Academic Integrity statement
__ List the instructor's expectations concerning academic integrity in the completion of tests, assignments, and course requirements.
__ Include reference to the Code of Student Conduct policy (NCSU POL11.35.1) and Pack Pledge.

2. 15. Statement for students with disabilities (included verbatim)
__ "Reasonable accommodations will be made for students with verifiable disabilities. In order to take advantage of available accommodations, students must register with Disability Services for Students at 1900 Student Health Center, Campus Box 7509, 919-515-7653. For more information on NC State's policy on working with students with disabilities, please see the Academic Accommodations for Students with Disabilities Regulation (REG02.20.01)"

2.16 Electronic Course Components
__ List electronically hosted course components, if any. Instructors should identify any components that may present privacy, copyright, or accessibility issues for the student so that these issues can be addressed during the course drop/add period.
__ Instructors are not responsible for ensuring privacy or accessibility of electronic materials that are not required components of the course (e.g., links to supplemental information that is not part of the required reading list). However, instructors should judiciously consider privacy, copyright, and accessibility of supplemental links provided to students and warn them of any known issues or concerns in this regard. See Online Course Material Host Requirements (NCSU REG08.00.01)

2.16.3 One of the following statements is required.
___ For use in courses with online exchanges among students and the instructor, but NOT persons outside the course (e.g., wrapped):
"Students may be required to disclose personally identifiable information to other students in the course, via electronic tools like email or web-postings, where relevant to the course. Examples include online discussions of class topics, and posting of student coursework. All students are expected to respect the privacy of each other by not sharing or using such information outside the course." OR
___ For use in courses where student information may be accessible to persons beyond the instructor and students in the course (e.g., not wrapped):
"This course may involve electronic sharing or posting of personally identifiable student work or other information with persons not taking or administering the course. Students will be asked to sign a consent allowing disclosure of their personally identifiable work. No student is required to sign the consent as a condition of taking the course. If a student does not want to sign the consent, he or she has the right to ask the instructor for an alternative, private means of completing the coursework."

2.17 N.C. State Polices, Regulations, and Rules (PRR) (included verbatim)
__ Include the statement "Students are responsible for reviewing the NC State University PRR's located at http://oucc.ncsu.edu/course-rights-and-responsibilities which pertains to their course rights and responsibilities."