

2014-2015 SHORT SIGNATURE SHEET



UNC CHARLOTTE

*Rec'd
Matt
Wynne
3/19/15
OK*

Date: 21 April 2015

Subject: Request to revise graduate courses in Mechanical Engineering to include cross-listing with courses in the Optical Science and Engineering graduate program

Originating Department: Mechanical Engineering and Engineering Science

TYPE OF PROPOSAL: UNDERGRADUATE _____ GRADUATE XX _____ UNDERGRADUATE & GRADUATE _____
(Separate proposals sent to UCCC and Grad. Council)

DATE RECEIVED	DATE FORWARDED	COMMENTS: APPROVED, APPROVED WITH REVISIONS, ETC.	SIGNATURES
			<u>PERSON ORIGINATING PROPOSAL</u> <i>Tony Schmitz</i> [Dr. Tony Schmitz]
		Approved	<u>DEPARTMENT CHAIR</u> <i>Scott Smith</i> [Dr. Scott Smith]
		Approved	<u>COLLEGE CURRICULUM COMMITTEE CHAIR</u> <i>Tao Hong</i> [Dr. Michael Tao Hong]
	5/18/15	Approved	<u>COLLEGE DEAN</u> <i>Robert Johnson</i> [Dr. Robert Johnson]
		Approved	<u>GENERAL EDUCATION</u> (if applicable; for General Education courses only) [print name here:]
		Approved	<u>HONORS COLLEGE</u> (if applicable; for Honors courses & programs) [print name here:]
		Approved	<u>UNDERGRADUATE COURSE & CURRICULUM COMMITTEE CHAIR</u> (for undergraduate courses only)
		Approved	<u>GRADUATE COUNCIL CHAIR</u> (for graduate courses only)
			<u>FACULTY GOVERNANCE ASSISTANT</u> (received and processed in Academic Affairs)



UNC CHARLOTTE

SHORT FORM COURSE AND CURRICULUM PROPOSAL

*To: Dr. Alan Freitag, Graduate Council Chair

From: Dr. Tony Schmitz

Date: 21 April 2015

Re: Request to revise MEGR 6/8181 and MEGR 7/8284 to include cross-listing with courses in the Optical Science and Engineering program

The Short Form is used for minor curriculum changes. Minor changes may include:

Undergraduate: Minor changes include new undergraduate courses, course numbering (note: must follow Course Numbering Policy), change in pre-requisites, editorial changes to course description, and/or minor program changes

Graduate: Minor changes include course numbering (note: must follow Course Numbering Policy), change in pre-requisites, editorial changes to course description, and/or minor program changes

Submission of this Short Form indicates review and assessment of the proposed curriculum changes at the department and collegiate level either separately or as part of ongoing assessment efforts.

*Proposals for undergraduate courses should be sent to the Undergraduate Course and Curriculum Committee Chair. Proposals related to both undergraduate and graduate courses, (e.g., courses co-listed at both levels) must be sent to both the Undergraduate Course and Curriculum Committee and the Graduate Council.

SUMMARY: State clearly and concisely the proposed changes. Please give a brief statement as to why the change is being proposed.

The Mechanical Engineering graduate program proposes to revise the catalog descriptions of two courses, MEGR 6/8181 Engineering Metrology and MEGR 7/8284 Advanced Surface Metrology to include the cross-listing information with the Optical Science and Engineering graduate program.

FOR CONSULTATION WITH OTHER DEPARTMENTS:

1. Does the proposed change affect other departments (including additions and/or changes to degree requirements or prerequisites offered in other departments)?
 Yes No

2. If Yes, please list the other departments affected by the proposed change: Physics and Optical Science

3. Have you consulted with each department listed in item 2 regarding the proposed change?
 Yes No

Result(s) of Consultation(s) (please attach documentation):

4. For a new course or for major modification of an existing course, include Consultation on Library Holdings. n/a

5. For proposals involving Honors courses or programs, include written consultation with the Honors Council. n/a

RESOURCES:

1. For a new course or revisions to an existing course, check all the statements that apply:
 This course will be cross listed with another course.
 There are prerequisites for this course.
 There are co-requisites for this course.
 This course is repeatable for credit.
 This course will affect the number of credits hours for its program.
 This proposal results in the deletion of an existing course(s) from the degree program and/or catalog.
 This proposal will alter an agreement with a North Carolina community college.

For all items checked above, applicable statements and content must be reflected in the proposed catalog copy.

2. Indicate the additional resources required, if any, to implement and maintain the proposed change.

CREDIT HOUR (Mandatory if new and/or revised course in proposal):

Review statement and check box once completed.

- The appropriate faculty committee has reviewed the course outline/syllabus and has determined that the assignments are sufficient to meet the University definition of a credit hour.

PROPOSED CATALOG COPY: For existing courses copy and paste the current catalog copy and use the Microsoft Word "track changes" feature (or use red text with "strikethrough" formatting for text to be deleted, and adding blue text with "underline" formatting for text to be added). For new courses, draft comprehensive catalog copy.

MEGR 6181. Engineering Metrology. (3) Cross-listed as OPTI 6/8381 Engineering Metrology. Prerequisite: MEGR 3282 or equivalent. Introduction to metrology and standards. Uncertainty, precision and accuracy in metrology. Measurement of size and form, computational methods in measurement of form. Measurement of surface texture and out of roundness. Machine tool and robot accuracy and calibration. Evaluation of screw threads and gears. Introduction to design of precision instruments. Credit will not be awarded for MEGR 6181 where credit has been awarded for MEGR 8181. *(Fall)*

MEGR 8181. Engineering Metrology. (3) Cross-listed as OPTI 6/8381 Engineering Metrology. Prerequisite: MEGR 3282 or equivalent. Introduction to metrology and standards. Uncertainty, precision and accuracy in metrology. Measurement of size and form, computational methods in measurement of form. Measurement of surface texture and out of roundness. Machine tool and robot accuracy and calibration. Evaluation of screw threads and gears. Introduction to design of precision instruments. Credit will not be awarded for MEGR 8181 where credit has been awarded for MEGR 6181. *(Fall)*

MEGR 7284. Advanced Surface Metrology. (3) Cross-listed as MEGR 8284 and OPTI 6/8384 Advanced Surface Metrology. Prerequisite: MEGR 6181 or permission of department. Constituents of surface texture, stylus, optical, atomic force microscope and other advanced methods of measuring surface texture. Two and three dimensional measurement of surfaces. Separation of form, waviness and roughness. Random process analysis techniques, use of transforms for filtering. Numerical evaluation of surface texture. Use of surface texture as fingerprint of the process. Relationship between function and surface texture. Credit will not be awarded for MEGR 7284 where credit has been awarded for MEGR 8284. *(Spring, Alternate years)*

MEGR 8284. Advanced Surface Metrology. (3) Cross-listed as MEGR 7284 and OPTI 6/8384 Advanced Surface Metrology. Prerequisite: MEGR 6181 or permission of department. Constituents of surface texture, stylus, optical, atomic force microscope and other advanced methods of measuring surface texture. Two and three dimensional measurement of surfaces. Separation of form, waviness and roughness. Random process analysis techniques, use of transforms for filtering. Numerical evaluation of surface

texture. Use of surface texture as fingerprint of the process. Relationship between function and surface texture. Credit will not be awarded for MEGR 8284 where credit has been awarded for MEGR 7284. *(Spring, Alternate years)*

ACADEMIC PLAN OF STUDY (UNDERGRADUATE ONLY): Does the proposed change impact an existing Academic Plan of Study?

- Yes. If yes, please provide updated Academic Plan of Study in template format.
 No.

STUDENT LEARNING OUTCOMES (UNDERGRADUATE & GRADUATE): Does this course or curricular change require a change in SLOs or assessment for the degree program?

- Yes. If yes, please provide updated SLOs in template format.
 No.

TEXTBOOK COSTS: It is the policy of the Board of Governors to reduce textbook costs for students whenever possible. Have electronic textbooks, textbook rentals, or the buyback program been considered and adopted?

- Yes. Briefly explain below.
 No. Briefly explain below.

All options are considered for all MEGR courses.

IMPORTANT NOTE: A Microsoft Word version of the final course and curriculum proposal should be sent to facultygovernance@unc.edu upon approval by the Undergraduate Course and Curriculum Committee and/or Graduate Council chair.

From: Schmitz, Tony
To: Beauregard, Tracy
Subject: FW: Urgent: cross-listing short form acknowledgement request
Date: Tuesday, April 21, 2015 8:43:53 AM

Can you help me get started on this? I'm happy to come up when you are available.

From: Scott Smith [mailto:kssmith@uncc.edu]
Sent: Monday, April 20, 2015 9:11 PM
To: Davies, Angela
Cc: Schmitz, Tony; Clayton, Mark; Boreman, Glenn
Subject: Re: Urgent: cross-listing short form acknowledgement request

- i) I am aware of the need to change the catalog
- ii) with this email I am asking Tony to start the short form process

Scott

Sent from my iPhone

On Apr 20, 2015, at 1:33 PM, Angela Davies <adavies@uncc.edu> wrote:

Hi Scott,

We are now putting through a long form proposal for many changes to the OSE program.

Following the voting of the Optics Faculty, we are including a request to create formal OPTI courses to cross-list with the MEGR courses we have been cross-listing with recently. The courses are

MEGR 6/8181 Engineering Metrology and
MEGR 7/8284 Advanced Surface Metrology

For a cross-list, the catalog descriptions for both the new OPTI course and the existing MEGR course need to indicate the cross list. Your department will have to put through a short form proposal to request the catalog change on your side for the MEGR courses.

We have drafted the short form for you. See attached.

In order for the OSE program changes to move through, the Graduate Council would like an **email response from you indicating that you are**

- i) aware of the need to change the catalog descriptions for the above listed MEGR courses and**
- ii) you are beginning this short-form process.**


It would help if you could respond right away - we need to get your email response to the Graduate Council as soon as possible.

Thanks so much.

Angela

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Angela D. Davies | Professor
Director, Optical Science and Engineering Graduate Program
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PH: 704-687-8135  704-687-8135 | <http://maxwell.uncc.edu/adavies/>

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Send SMS

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You'll need Skype CreditFree via Skype

<Short Form Revisions to Courses in Mechanical Engineering and Engineering Science.docx>