George Mason University
Graduate Course Approval/Inventory Form

Please complete this form and attach a copy of the syllabus for new courses. Forward it as an email attachment to the Secretary of the Graduate Council. A printed copy of the form with signatures should be brought to the Graduate Council Meeting. Complete the Coordinator Form on page 2, if changes in this course will affect other units.

Please indicate:  ____ NEW  __X__ MODIFY  ____ DELETE

Local Unit: Civil, Environmental, and Infrastructure Engineering  Graduate Council Approval Date: 10/21/04

Course Abbreviation:  CEIE  Course Number: 500

Full Course Title: Land Development Planning and Engineering

Abbreviated Course Title (24 characters max.): Land Devel. Plan. & Engg.

Credit hours: 3  Program of Record: MS CEIE

Repeatable for Credit?

____ D=Yes, not within same term  Up to hours
____ T=Yes, within the same term  Up to hours
__X_ N=Cannot be repeated for credit

Activity Code (please indicate):  __X__ Lecture (LEC)  ____ Lab (LAB)  ____ Recitation (RCT)
  ____ Studio (STU)  ____ Internship (INT)  ____ Independent Study (IND)  ____ Seminar (SEM)

Catalog Credit Format  3 : 3 : 0  Course Level: GF(500-600)  _500__ GA(700+)  ____

Maximum Enrollment: 20  For NEW courses, first term to be offered:
Prerequisites or corequisites: BS in CEIE or Permission of Instructor

Catalog Description (35 words or less)  Please use catalog format and attach a copy of the syllabus for new courses.:
An introduction to the land development process from project conception to project viability. Quantitative and qualitative analysis in planning, design, construction, and management of engineering facilities. Comprehensive planning, planning and zoning, engineering feasibility, and schematic planning process.

For MODIFIED or DELETED courses as appropriate:
Last term offered:  Sp 04  Previous Course Abbreviation:  CEIE  Previous number: 500

Description of modification: Course has been modified to be directed exclusively at graduate students

APPROVAL SIGNATURES:
Submitted by: ________________________________ email: __________________

Department/Program: ________________________________ Date: __________________

College Committee: ________________________________ Date: __________________

Graduate Council Representative: ________________________________ Date: __________________
GEORGE MASON UNIVERSITY
Course Coordination Form

Approval from other units:

Please list those units outside of your own who may be affected by this new, modified, or deleted course. Each of these units must approve this change prior to its being submitted to the Graduate Council for approval.

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<th>Head of Unit’s Signature:</th>
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Graduate Council approval: ____________________________ Date: ____________
Graduate Council representative: ________________________ Date: ____________
Provost Office representative: _________________________ Date: ____________
I. CATALOG DESCRIPTION

A. 500 Land Development Planning and Engineering (3:3:0)

B. Prerequisite: BS in CEIE or Permission of Instructor

C. Catalog Description:

Fundamentals of the land development process from project conception to project viability. Quantitative and qualitative analysis in planning, design, construction, and management of engineering systems and facilities. Introduces comprehensive planning, planning and zoning, engineering feasibility, and schematic planning process with an integration of traditional and IT-based methods and tools.

II. JUSTIFICATION

Course necessity: This course will provide graduate students with insight into the land development process beginning with comprehensive plans through schematic plan development. This course will also help to define a focus at the graduate level on the land development area of Civil Engineering.

Relationship to other courses: This course builds upon the skill set introduced in the CEIE undergraduate program.

III. APPROVAL HISTORY

A. Approved by the Civil, Environmental & Infrastructure Engineering Department on October 14, 2004
B. Approved by the IT&E Graduate Studies Committee on
C. Approved by the IT&E Dean on

IV. SCHEDULING

Time of Initial Offering: The proposed course has been offered for several semesters in the fall. However, in the past it was offered as a cross-listed course with CEIE 400. At this time, it has been deemed necessary to offer two courses, one aimed at graduate students and the other (CEIE 400) aimed exclusively at undergraduates in our program. It is anticipated that this course will be offered to graduate students in the Fall of 2005.

Existing Faculty With Expertise in Subject Area
CEIE faculty members Michael Bronzini, Tom Arciszewski

V. COURSE OUTLINE

1. Land Development Overview/History
2. Comprehensive Plan Development
3. Planning and Zoning/Re-Zoning  
4. Engineering Feasibility Studies  
5. Wetlands Assessment and Mitigation  
6. Transportation Needs Assessment  
7. Geotechnical Needs Assessment  
8. Water Resources Needs Assessment  
9. Public Facilities Development  
10. Cost Analysis  
11. Schematic Plan Development

Course Requirements and Grading

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