

**Course Approval Form** 

For approval of new courses and deletions or modifications to an existing course.

registrar.gmu.edu/facultystaff/curriculum

Action Requested: Create new course		Uı	e Level: ndergraduate raduate
College/School:COSSubmitted by:Estela Blaiste	n	Department: SPACS Ext: Ema	il: blaisten@gmu.edu
Subject Code: CSI N (Do not list multiple codes or numbers. Ea have a separate form.)		Effective Term: X Fall Spring Summer	Year 2013
Title: Current Fluid Mechanic Banner (30 characters max in New		chanics	
Credits:     3     Fixed     x     o       (check one)     Variable     to		x         Not Repeatable (NR)           Repeatable within degree (RD)           Repeatable within term (RT)	Maximum credits allowed:
Grade Mode: X Regular (A, B, (check one) Satisfactory/No Special (A, B C	Credit (check one)	Lab (LAB)	Independent Study (IND) Seminar (SEM) Studio (STU)
			In struction of Made
Prerequisite(s):	Corequisite(s):		Instructional Mode:
CSI 690 and CSI 780, or perministructor	lission of		x       100% face-to-face         Hybrid: ≤ 50% electronically delivered         100% electronically delivered
Restrictions Enforced by Syste	e <b>m:</b> Major, College, Degree, Pr		Are there equivalent course(s)? Yes No f yes, please list
Catalog Copy for NEW C	ourses Only (Consult Univer	sity Catalog for models)	
Description (No more than 60 words	, use verb phrases and present ter	ise) Notes (List additional information	tion for the course)
Indicate number of contact hours: When Offered: (check all that apply)	Hours of Lecture or Sem	inar per week: Ho	urs of Lab or Studio:
Approval Signatures			
Department Approval	Date	College/School Approval	Date must circulate this proposal for review by
those units and obtain the necessary			
Unit Name	Unit Approval Name	Unit Approver's Signature	Date
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For Graduate Courses	s Only		I
Graduate Council Member	Provost Office		araduate Council Approval Date

For Registrar Office's Use Only: Banner\_\_\_\_

Graduate Council Approval Date

# Course Proposal Submitted to the Curriculum Committee of the College of Science

#### 1. COURSE NUMBER AND TITLE: CSI 720 Fluid Mechanics

#### Course Prerequisites:

**OLD:** CSI 700 and 780, or permission of instructor

NEW: CSI 690 and CSI 780, or permission of instructor

<u>Catalog Description</u>: Covers basic and advanced fluid mechanics and continuous hypothesis to define fluids. Introduces tensor analysis; Euclidean and Lagrangian representations of fluid flow; Laplace's equation; continuity equation; Navier-Stokes equations; Bernoulli's theorem and Crocco's form of the equations; steady and unsteady flows; potential, incompressible, and compressible flows; gravity and sound waves; gas dynamics; and viscous flows.

Rationale for the modification: The CSI 700 course has been renumbered to CSI 690.

#### 2. <u>COURSE JUSTIFICATION</u>:

**Course Objectives:** 

Course Necessity:

**Course Relationship to Existing Programs:** 

**Course Relationship to Existing Courses:** 

# 3. <u>APPROVAL HISTORY</u>:

# 4. <u>SCHEDULING AND PROPOSED INSTRUCTORS</u>:

#### **Semester of Initial Offering:**

Proposed Instructors:

# **5. TENTATIVE SYLLABUS:**