

PROPOSAL NUMBER: 99- 401

CURRICULUM PROPOSAL FORM

(279222228)

***DEADLINES:**

REGULAR COURSE PROPOSALS: OCTOBER 23, 1998 FOR FALL, 1999 AND FEBRUARY 19, 1999 FOR SPRING, 2000
SHORT-TERM COURSE PROPOSALS: DECEMBER 11, 1998 FOR FALL, 1999 AND MARCH 26, 1998 FOR SPRING 2000

PROPOSAL TITLE: Fluid Mechanics II

SPONSOR/S: Dr. Anthony J. Marchese and the Department of Mechanical Engineering

DEPARTMENT: Mechanical Engineering

0910.313

CHECK ALL THAT APPLY:
 UNDERGRADUATE GRADUATE

COLLEGE: Engineering

If LAS: History/Humanities
 Math/Sciences
 Social/Behavioral Sciences

* * * * *

TYPE OF PROPOSAL (Check ALL that Apply)

<input type="checkbox"/> General Education	<input checked="" type="checkbox"/> New Course (NOT Gen. Ed.)
<input type="checkbox"/> New Course in <u> </u> Bank	<input type="checkbox"/> Name Change (Dept., School, Major)
<input type="checkbox"/> Existing course, Add To <u> </u> Bank	<input type="checkbox"/> Changes in Degree Requirements
<input type="checkbox"/> Multicultural/Global Designation	<input type="checkbox"/> Changes Involve Gen. Ed. requirements
<input type="checkbox"/> Writing Intensive Designation	
<input type="checkbox"/> New Minor/Concentration/Specialization	<input type="checkbox"/> Minor Changes to Existing Courses
<input type="checkbox"/> New Major/Degree Program	<input type="checkbox"/> Course is NOT General Education
<input type="checkbox"/> Short Term Course Proposal	<input type="checkbox"/> Course IS General Education

All Attached for Department

DEPARTMENT
(SIGNATURE INDICATES APPROVAL)

DEPT. CURRICULUM CHAIR / DATE **DEPT. CHAIRPERSON / DATE**

COLLEGE CURRICULUM COMMITTEE
DATE OF OPEN HEARING (if necessary) 11/5/98

APPROVED
 NOT APPROVED

COMMENTS:

Robert P. Herbeth *11/5/98*
SIGNATURE **DATE**

ACADEMIC DEAN (& GRADUATE DEAN, for New Graduate Programs Only)

APPROVED *All attached*
 NOT APPROVED

COMMENTS:

SIGNATURE (Academic Dean) **DATE**

SIGNATURE (Graduate Dean) **DATE**

UNIVERSITY CURRICULUM COMMITTEE

DATE OF OPEN HEARING (if necessary) College Level only

___ APPROVED

___ NOT APPROVED

COMMENTS:

P. Reeves
SIGNATURE

11/6/98
DATE

SENATE

Date announced at Senate 11/6/98

Voted upon at Senate: Approved Not Approved Date:

EXECUTIVE VICE PRESIDENT/PROVOST

___ APPROVED

___ NOT APPROVED If no, reasons are as follows:

STUDENT CREDIT HOURS _____ FACULTY LOAD HOURS _____ EQUALIZED CREDIT HOURS _____

OFFICIAL COPY & APPROVAL SHEET FILED (DATE): _____

DATE/SIGNATURE EXECUTIVE VICE PRESIDENT/PROVOST [Signature]

REGISTRAR

DATE APPROVED COURSE DESCRIPTION RECEIVED 11/9/98

HEGIS TAXONOMY & COURSE NUMBER ASSIGNED 11/9/98

DATE/SIGNATURE OF REGISTRAR Robert A. Kubat 11/9/98

NOTIFICATION FORWARD:

___ SENATE CURRICULUM COMMITTEE CHAIRPERSON

___ DEPARTMENT CHAIRPERSONS

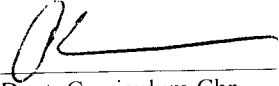
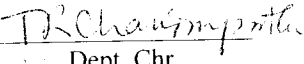
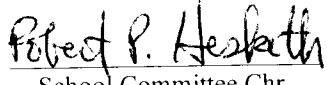
___ ACADEMIC DEAN(S)

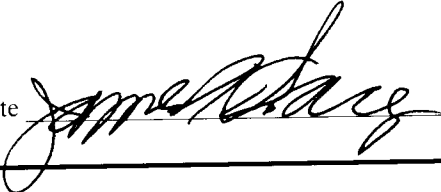
___ REGISTRAR

___ SPONSOR(S)

ROWAN UNIVERSITY CURRICULUM PROPOSAL

PROPOSAL TITLE: Mechanics II	
CHECK APPROPRIATE: <input checked="" type="checkbox"/> UNDERGRADUATE <input type="checkbox"/> GRADUATE <input type="checkbox"/> SEMESTER HOURS	
SPONSOR(S): Dr. Anthony J. Marchese and the Department of Mechanical Engineering	
DEPARTMENT/TELEPHONE # Mechanical Engineering, x4627	
CHECK ONE: <input checked="" type="checkbox"/> COURSE <input type="checkbox"/> MINOR PROGRAM <input type="checkbox"/> CONCENTRATION <input type="checkbox"/> SPECIALIZATION <input type="checkbox"/> ACHIEVEMENT CERTIFICATE <input type="checkbox"/> CERTIFICATION PROGRAM <input type="checkbox"/> MAJOR PROGRAM	

<p>Step #1 (Department)</p> <p><input checked="" type="checkbox"/> Approved (Date)</p> <p><input type="checkbox"/> Not Approved (Date)</p> <p style="text-align: center;"> _____ Dept. Curriculum Chr.</p> <p style="text-align: center;"><u>2/25/98</u> Reviewed (Date)</p> <p style="text-align: center;"> _____ Dept. Chr.</p>	<p>Step #2 (Receipt)</p> <p style="text-align: center;">SCC# <u>97-98-248</u></p> <p style="text-align: center;"><u>2-27-98</u> Date Received Senate</p> <p style="text-align: center;">_____ Senate Curriculum Chr.</p>	<p style="text-align: center;">Step #3 (School)</p> <p style="text-align: right;">Reviewed Date: <u>2/25/98</u></p> <p><input checked="" type="checkbox"/> Recommend to Approved</p> <p><input type="checkbox"/> Recommend NOT to Approve</p> <p>Forward for Open Hearing:</p> <p><input type="checkbox"/> WITHOUT Reservations</p> <p><input type="checkbox"/> WITH Reservations:</p> <p>Comments:</p> <p style="text-align: center;"> _____ School Committee Chr.</p>
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Step #4 (Academic Dean): <input type="checkbox"/> Recommended <input type="checkbox"/> NOT Recommended <input type="checkbox"/> Conditionally Recommended (See Comments)
Comments:
Dean Signature/Date  <u>2/27/98</u>

Step #5 (Senate Curriculum Committee): Open Hearing Date: _____ Approved by Curriculum Committee Date _____
Returned to Sponsor(s) for the following reason:

Step #6 (Senate) Date announced/voted on at Senate _____ If voted on: <input type="checkbox"/> Approved <input type="checkbox"/> NOT Approved
Date forwarded to Executive Vice President/Provost _____
Senate Curriculum Committee chair Signature/Date: _____

Step #7 (Executive Vice President/Provost): Date Received _____

___ Approved

___ NOT Approved If no, reasons are as follows:

Student Credit Hours _____

Faculty Load Hours _____

Equalized Credit Hours _____

Official Copy & Approval Sheet Filed (Date) _____

Executive Vice President/Provost Signature _____

Registrar

Date Approved Course Description Received 11/9/98 C

Hegis Taxonomy and Course Number Assigned 0910-311

Date/Signature of Registrar Robert A. Kubat 11/9/98

Notification Forward:

_____ Senate Curriculum Committee Chairperson

_____ Department Chairpersons

_____ Academic Dean(s)

_____ Registrar

_____ Sponsor(s)

Course Proposal

1. Details:

- a) **Course Title:** Fluid Mechanics II (0910.313)
- b) **Sponsor:** Dr. Anthony J. Marchese, Department of Mechanical Engineering, College of Engineering
- c) **Credit Hours:** 2 credit hours
- d) **Course Level:** Junior
- e) **Curricular Effect:** Required course for mechanical engineering majors; An elective for other engineering majors
- f) **Prerequisites:** Fluid Mechanics I (0901.341)
- g) **Suggested Time/
Scale of Implementation** Spring 1999
One section
- h) **Resources:**

Faculty is in place to teach the course within the Dept. of Mechanical Engineering. A variable flow (12"x12" cross section, 0-100 MPH) wind tunnel and a supersonic nozzle flow apparatus has been purchased in support of this course. The wind tunnel and supersonic nozzle apparatuses will be installed in the 1130 square foot thermodynamics and engine laboratory will be dedicated to this course. Library resources are in place. Computer hardware resources are available in the Engineering Building to support this course. No new software resources are required.

2. Rationale:

The proposed course is part of the Engineering Curriculum Proposal approved by the College Senate in December 1994. The proposed course is consistent with the establishment of the School of Engineering approved by the Board of Trustees in February 1995.

The course directly follows Fluid Mechanics I, which is taken by all mechanical, civil and chemical engineering students. Fluid Mechanics II emphasizes more advanced topics which are of particular concern to mechanical engineers. These topics consist of three key areas: external incompressible flow over immersed bodies, supersonic compressible flow and turbomachinery.