

ACADEMIC YEAR 2009-2010

To: Advisors of M.E. Undergraduate Students

From: John H. Lienhard V, Undergraduate Officer, Room 1-110 x3-2305

Re: **Course 2, Mechanical Engineering Registration Check Sheet**

The registration check sheet on the reverse is to be used for students who are majoring in Mechanical Engineering (Course 2).

This check sheet is to be kept in the advisee's folder and updated each semester. We suggest that you put a diagonal line (/) in the square for the semester when the subject is being taken, and that you write the grade over this when the course is completed.

A blacked-out square (■) indicates that the course is not offered. A "+s" indicates that the course is offered in the summer.

The department suggests that students elect a basic electronics subjects as early as possible in their program, e.g., 6.002 *Circuits and Electronics*, offered during the fall and spring term, or 6.071J *Introduction to Electronics*, offered during the spring term, are recommended as unrestricted electives.

Students may receive CI credit for only one CI-H subject per semester. The Communication Requirement specifies that undergraduates complete one CI subject by the end of the first year, two by the end of the second year, three by the end of the third year, and four by graduation.

Institute Requirement Courses:			Semester taken:								
	Number	Units	1		2		3		4		Alternatives:
			F	Sp	F	Sp	F	Sp	F	Sp	
Chemistry	3.091	12									5.111 or 5.112
Physics	8.01	12									8.012 or 8.01X or 8.01L
Electromagnetism	8.02	12									8.022 or 8.02X
Calculus, one variable	18.01	12									18.01A, 18.013A or 18.014
Calculus, many variables	18.02+s	12									18.02A, 18.022, 18.023, 18.023A, 18.024
Biology	7.012	12									7.013, 7.014, 7.015
Two CI-H Subjects	CI-H	--					■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	■ ■ ■ ■	

Departmental Core (required)

Required Courses:			Semester taken:								
	Number	Units	1		2		3		4		Prerequisites:
			F	Sp	F	Sp	F	Sp	F	Sp	
Mechanics and Materials I	2.001	12									8.01, 18.02, <i>18.03</i>
Mechanics and Materials II	2.002	12									2.001, 3.091, 5.111, or 5.112
Dynamics and Control I	2.003J	12									8.01, 18.03
Dynamics and Control II	2.004	12									2.003J, 8.02
Thermal-Fluids Engineering I	2.005	12									8.02, 18.02, <i>18.03</i>
Thermal-Fluids Engineering II	2.006	12									2.005, 18.03
Design and Manufacturing I	2.007†	12	■ ■ ■ ■		■ ■ ■ ■		■ ■ ■ ■		■ ■ ■ ■		2.001
Design and Manufacturing II	2.008	12									2.001; 2.005; 2.007 or 2.017J
Prod. Eng'g Processes (CI-M)	2.009	12		■ ■ ■ ■		■ ■ ■ ■		■ ■ ■ ■		■ ■ ■ ■	2.001, 2.003J, 2.005; 2.00B or 2.670; senior standing
Numerical Comp for Mech Eng	2.086	12									2.001, 2.003J, 2.005
Mech. Eng'g Tools (P/D/F)	2.670	3	COURSE ONLY OFFERED OVER IAP !								
Meas. & Instrumentation (CI-M)	2.671	12									2.001, 2.003J, 8.02
Project Laboratory	2.672	6									2.001, 2.003J, 2.006, 2.671
Differential Equations	18.03	12									<i>18.02</i>
Undergraduate Thesis	2.ThU	min 6									
Two CI-M Subjects	CI-M	--	■ ■ ■ ■	■ ■ ■ ■							

Professional Subjects (electives)

			Semester taken:								
	Number	Units	1		2		3		4		Prerequisites:
			F	Sp	F	Sp	F	Sp	F	Sp	
Hydrodynamics	2.016	12		■ ■ ■ ■		■ ■ ■ ■		■ ■ ■ ■		■ ■ ■ ■	8.02, 18.03
Design of Elect. Robotic Systems	2.017J	12		■ ■ ■ ■		■ ■ ■ ■		■ ■ ■ ■		■ ■ ■ ■	2.003J; 2.005 or 2.016; 2.671
Design of Ocean Systems	2.019	12	■ ■ ■ ■		■ ■ ■ ■		■ ■ ■ ■		■ ■ ■ ■		2.001; 2.003J; 2.005 or 2.016
Computer Methods in Dynamics	2.092	12		■ ■ ■ ■		■ ■ ■ ■		■ ■ ■ ■		■ ■ ■ ■	2.001, 2.003J
Introduction to Robotics	2.12	12		■ ■ ■ ■		■ ■ ■ ■		■ ■ ■ ■		■ ■ ■ ■	2.004
Feedback Control Systems	2.14	12	■ ■ ■ ■		■ ■ ■ ■		■ ■ ■ ■		■ ■ ■ ■		2.004
Molecular Mechanics	2.370	12		■ ■ ■ ■		■ ■ ■ ■		■ ■ ■ ■		■ ■ ■ ■	2.001; 3.091, 5.111, or 5.112
Intermed Heat and Mass Transfer	2.51	12		■ ■ ■ ■		■ ■ ■ ■		■ ■ ■ ■		■ ■ ■ ■	2.006*
Advanced Energy Conversion	2.60J	12	■ ■ ■ ■		■ ■ ■ ■		■ ■ ■ ■		■ ■ ■ ■		2.006*
Optics	2.71	12	■ ■ ■ ■		■ ■ ■ ■		■ ■ ■ ■		■ ■ ■ ■		2.004*; 8.02; 18.03
Elements of Mechanical Design	2.72	12	■ ■ ■ ■		■ ■ ■ ■		■ ■ ■ ■		■ ■ ■ ■		2.005, 2.007, 2.671
Fields, Forces, and Flows in Biological Systems	2.793J	12	■ ■ ■ ■		■ ■ ■ ■		■ ■ ■ ■		■ ■ ■ ■		2.005, 6.021, 20.320 or permission of instructor
Molecular, Cellular, and Tissue Biomechanics	2.797J	12	■ ■ ■ ■		■ ■ ■ ■		■ ■ ■ ■		■ ■ ■ ■		18.03 or 3.016; 7.012, 7.013, 7.014, or 7.105; 2.370 or 2.772J
Environ. Benign Design and Mfr.	2.813	12	■ ■ ■ ■		■ ■ ■ ■		■ ■ ■ ■		■ ■ ■ ■		2.008 or permission of instruct.
Management in Engineering	2.96	12		■ ■ ■ ■		■ ■ ■ ■		■ ■ ■ ■		■ ■ ■ ■	

* Alternate prerequisites are listed in the catalog

Co-requisite courses listed in italics

† Students may take 2.017J instead