

2009/2010

ENGINEERING
ADVISING
HANDBOOK

DEPARTMENT OF ENGINEERING
HARVEY MUDD COLLEGE
CLAREMONT, CALIFORNIA

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1. THE BACHELOR OF SCIENCE IN ENGINEERING PROGRAM

A PROGRAM PHILOSOPHY AND CORE VALUES

The philosophy of the engineering program at Harvey Mudd College is based on the recognition that there is a professional component that is best addressed through practice gained by working on real problems. The program is built on the following core values:

- Systems
- Design
- Experiential Learning Opportunities (ELOs)
- Professional Practice

Systems provides students with the “language skills” needed for interdisciplinary work. Design, considered to be the essence of engineering work, is a thread found throughout the engineering program that begins with a 1st year offering and culminates with a student’s Clinic experience. Experiential Learning Opportunities (ELOs), once limited to a 2nd year experimental engineering course and to Clinic – our main forum for experiential learning and professional practice - can now be found integrated throughout our program whenever theory and practice can be integrated to enhance student learning. Professional Practice is at the heart of the engineering program, and is reinforced by a faculty focused on professional development inside and outside the classroom.

B PROGRAM EDUCATIONAL OBJECTIVES

- I Produce graduates who are exceptionally competent engineers whose work is notable for its breadth and its technical excellence*
- II Provide a "hands-on" approach to engineering so that graduates develop an understanding of engineering judgment and practice*
- III Prepare and motivate students for a life-time of independent, reflective learning*
- IV Produce graduates who are fully aware of the impact of their work on society, both nationally and globally*
- V Offer a curriculum that is current, exciting, and challenging for both students and faculty, but can be completed in four years by any motivated student who is admitted to HMC*

C THE ENGINEERING CURRICULUM

The engineering major consists of a core of required courses followed by a program of technical electives as shown in figs 1 & 2. An engineering major must satisfactorily complete the following required courses for the bachelor's degree: Engineering 4, 8, 59, 80, 82, 83, 84, 85, 101–102, 106, 111–113, and 121-124. In addition, three upper-division engineering technical electives are also required. Students should note that many electives are offered in alternate years.

The engineering curriculum can be described as having three stems. The *engineering science* stem consists of five required courses designed to provide students with exposure to the technical content and methodology of five basic engineering areas: Electronic and Magnetic Circuits and Devices, Digital Electronics and Computer Engineering, Chemical and Thermal Processes, Continuum Mechanics, and Materials Engineering.

The *engineering systems* stem is a set of three required courses that builds the skills required to analyze and design generalized engineering systems to process signals representing material, energy and information flows.

The *engineering design* stem includes six required courses that are designed to provide a unique engineering practice experience through all four years of the undergraduate program. "Hands on" exposure to professional practice begins with students working in small teams on open-ended design problems posed by not-for-profit clients in the first year (E4), continues with a practicum that provides hands-on, shop-based experience (E8), a laboratory course in which students gain skills in designing and running experiments to solve design problems and characterize engineered systems (E80), and culminates with three semesters of Engineering Clinic (E111–113).

In addition to the required courses of the three stems are four semesters of seminar (E121–124) taken in the junior and senior years.

To keep open the option of majoring in engineering, a student should have taken E4 and E59 in the College's common core during her/his first three semesters. Any proposed variation from this program must be discussed in advance with an engineering advisor.

The Bachelor of Science (B.S.) in Engineering is accredited by the Accreditation Board for Engineering and Technology (ABET).

HMC Engineering

Required Courses

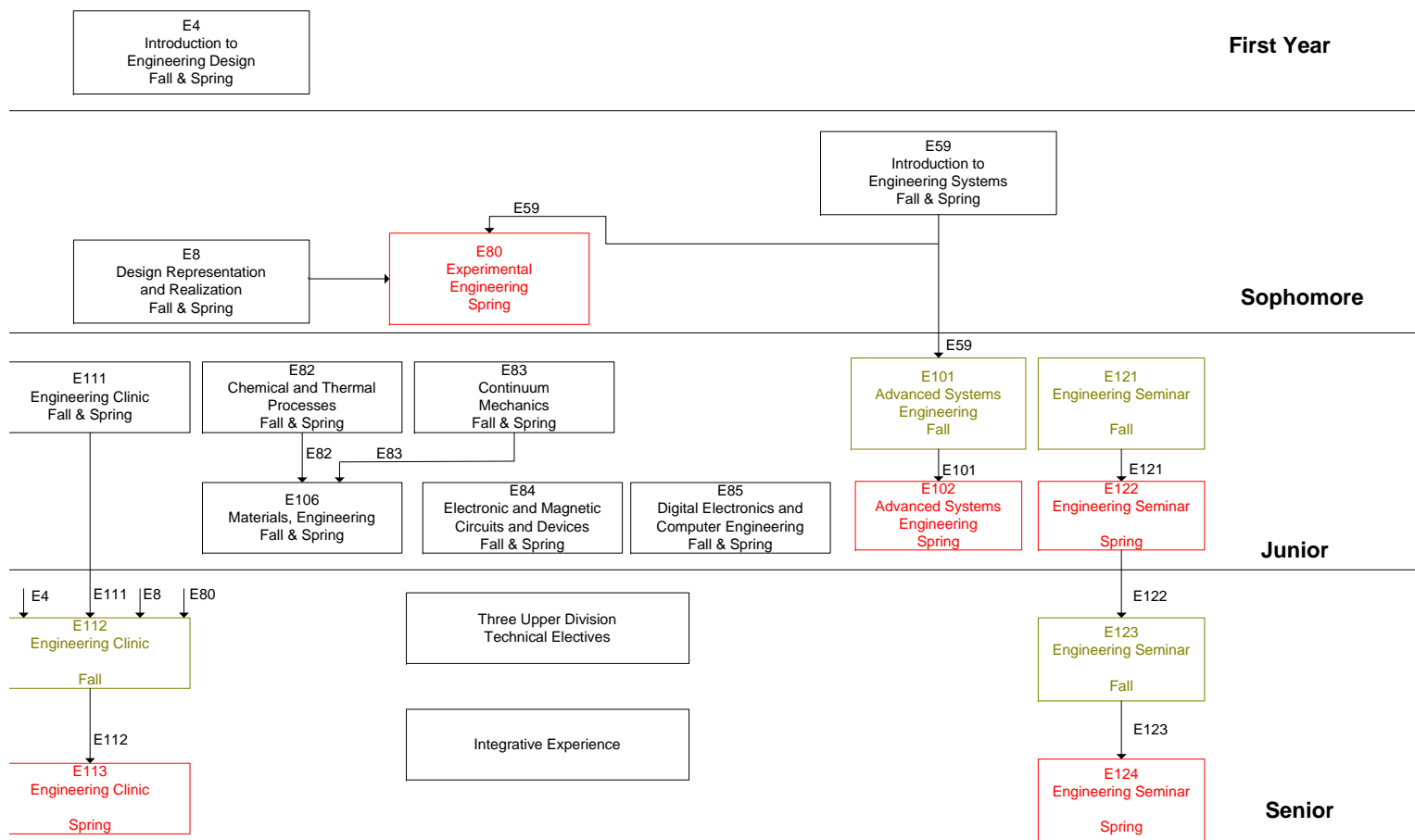


Figure 1 - HMC Engineering Required Courses

HMC Engineering

Electives

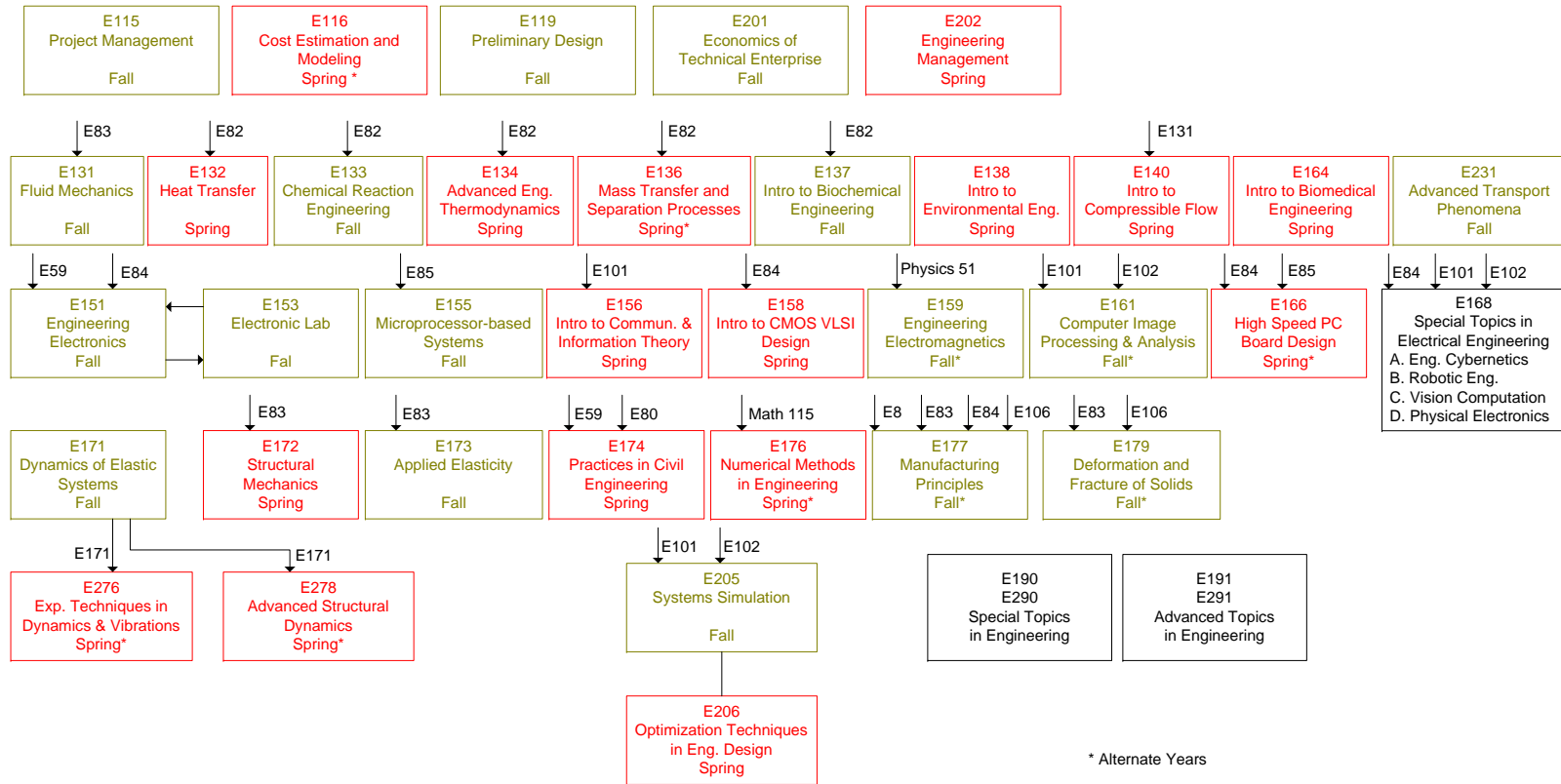


Figure 2 – HMC Engineering Electives

D RULES FOR PLANNING YOUR ENGINEERING CURRICULUM

A sample sequence of courses for the engineering major is given with the Engineering Advising Form in Section 7a.

Please note the prerequisite structure for engineering courses shown in Figs 1 & 2. In particular:

1. E82 and E83 must be taken before E106
2. E8 must be taken previously or concurrently with E80.
3. Four of the five required engineering science courses (E82, E83, E84, E85, and E106) must be taken by the sixth semester, and the fifth must be taken no later than the seventh semester.
4. Junior standing in engineering or permission of the Director of Engineering Clinic is required in order to take E111 (Clinic I).
5. E4, E8, E80, and E111 must have been taken or permission of the Director of Engineering Clinic is required in order to take E112 (Clinic II).
6. All of the prerequisites needed for all of our courses are listed in the College catalogue and on our web site.

E ENGINEERING CLINIC

Pioneered by the Department of Engineering at Harvey Mudd College in 1965, the Engineering Clinic brings together teams of students to work with faculty advisors on carefully selected, industry- and government-sponsored design and development projects. The students plan and execute their projects; the projects are their own work. The faculty advise, coach, monitor, evaluate, and provide feedback. The student teams also coordinate their activities with sponsors' liaisons to ensure that the sponsors' goals are achieved and that the design experience corresponds as closely as possible to what engineers encounter in actual practice. Thus, the questions and problems that student teams face are typical of those regularly confronted by practicing engineers, and the solutions they devise must work in practice, not just in theory.

We believe that our broad engineering program will produce engineers capable of adapting changing technologies to expanding human needs, while at the same time being sensitive to the impact of their work on society, both within the United States and globally.

You will be asked for your preferences about both general engineering area and specific Clinic project(s) before you are assigned to a Clinic team. Teams are built and assigned by the Director of Engineering Clinic and the Chair of the Department of Engineering as they strive to meet both student preferences and project needs.

F YOU AND YOUR ENGINEERING ADVISOR

After you declare Engineering as your major, you will be assigned an Engineering Advisor who will assist you in planning a coherent program of study that reflects your interests within the context of the goals of the Department of Engineering.

Beginning with the fall semester of your sophomore year, you should plan on meeting with your Engineering Advisor at least once each semester in order to discuss your program options and secure your Engineering Advisor's approval for pre-registration for the next semester. The Department of Engineering's faculty try to schedule additional office hours during Pre-Registration Week. In the (unusual) event that your Engineering Advisor is unavailable, the Chair of the Department may act in her/his stead.

During your senior year you must complete and present to your Engineering Advisor an Application for Graduation. This should be done in the fall semester, but no later than the first week of class in the spring semester. At that time, you and your Engineering Advisor will review your complete program and he/she will sign the form to indicate that the Department of Engineering's curricular requirements have been met.

G CURRICULAR OFFERINGS OF THE DEPARTMENT OF ENGINEERING

Unless specifically noted otherwise, all courses are 3 credits. Prerequisites and course content are detailed in the College catalogue and the Department of Engineering's web site.

COURSES OFFERED EVERY YEAR

	FALL	SPRING
4. Introduction to Engineering Design	X	X
8. Design Representation and Realization 1 credit hour	X	X
59. Introduction to Engineering Systems	X	X
80. Experimental Engineering		X
82. Chemical and Thermal Processes	X	X
83. Continuum Mechanics	X	X
84. Electronic and Magnetic Circuits and Devices 2 credit hours	X	X
85. Digital Electronics and Computer Engineering	X	X
85A. Digital Electronics 1.5 credit hours	X	X
101-102. Advanced Systems Engineering 3 credit hours per semester	101	102
106. Materials Engineering	X	X
111. Engineering Clinic I	X	X
112-113. Engineering Clinic II-III	X	X
114. Engineering Clinic 1-3 credit hours		X
115. Project Management	X	
121-122. Engineering Seminar No credit	X	X
123-124. Engineering Seminar No credit	X	X
131. Fluid Mechanics	X	
132. Heat Transfer		X
151. Engineering Electronics	X	
153. Electronics Laboratory 1 credit hour	X	
155. Microprocessor-based Systems: Design and Applications 4 credit hours	X	
156. Introduction to Communication and Information Theory		X
158. Introduction to CMOS VLSI Design		X
168. Special Topics in Electrical Engineering		X
168b. Analysis & Test of Mechanical Systems		X
171. Dynamics of Elastic Systems	X	
172. Structural Mechanics		X
174. Practices in Civil Engineering		X
175. Dynamics of Rigid Bodies	X	
190. Special Topics in Engineering	X	X
191. Advanced Problems in Engineering Credit hours to be arranged	X	X
201. Economics of Technical Enterprise	X	
202. Engineering Management		X
205. Systems Simulation	X	
206. Optimization Techniques in Engineering Design		X
231. Advanced Transport Phenomena	X	X

COURSES OFFERED IN ACADEMIC YEARS ENDING IN “ODD” NUMBERS (E.G., 2010–11)

	FALL	SPRING
133. Chemical Reaction Engineering	X	
134. Advanced Engineering Thermodynamics		X
138. Introduction to Environmental Engineering		X
161. Computer Image Processing and Analysis	X	
166. High-Speed PC Board Design		X
179. Deformation and Fracture of Solids	X	
278. Advanced Structural Dynamics		X

COURSES OFFERED IN ACADEMIC YEARS ENDING IN “EVEN” NUMBERS (E.G., 2009–10)

	FALL	SPRING
116. Cost Estimation and Modeling		X
119. Preliminary Design	X	
136. Mass Transfer and Separation Processes		X
140. Introduction to Compressible Flow		X
159. Engineering Electromagnetics	X	
164. Introduction to Biomedical Engineering		X
173. Applied Elasticity	X	
176. Numerical Methods in Engineering		X
276. Experimental Techniques in Dynamics and Vibrations		X

2. THE ENGINEERING MINOR AND 3–2 PROGRAMS

A THE ENGINEERING MINOR

The Department of Engineering offers a minor in Engineering to HMC students who are enrolled in the HMC Off-Campus Majors Program. Following the lines of its three-stem curricular model, students pursuing this minor must successfully complete **seven** engineering courses, as follows:

Engineering Sciences (2): One of E82, E83, E84, E85, or E106
and
one follow-on course in the same discipline as the first; **and**

Engineering Systems (2): E59 (taken as part of the College’s Common Core);
and
E101; **and**

Design and Professional Practice (3): One of E4 or E111
and
E8 and E80.

This minor is available **only** to students enrolled in the HMC Off-Campus Majors Program

B 3–2 PROGRAM WITH CLAREMONT MCKENNA COLLEGE

Offered jointly by Harvey Mudd College (HMC) and Claremont McKenna College (CMC), this 3–2 Program provides a venue for students who want to combine a solid engineering foundation with a similar depth in economics and management. These students expect to work in management and executive capacities in engineering and technology, either in industry or in government. Participating students spend their first three years at CMC and then move to HMC. Upon completion of this five-year program, participants are awarded two degrees, a Bachelor of Arts in Economics by CMC and a Bachelor of Science in Engineering by HMC.

3. GUIDELINES FOR A SEMESTER ABROAD

Studying abroad is a great opportunity, but selecting courses for transfer credit can be tricky. In order for you to make the best use of your time at Mudd and benefit from a semester abroad, the best time for you to go abroad is during your junior year. If you are contemplating studying abroad, review these guidelines to minimize surprises and please plan (*way*) ahead!

A BEFORE YOU GO

Before you go, discuss your intended program of study with your Engineering Advisor. Bring a copy of the catalog descriptions of the courses you are considering. You are responsible for any translation that may be necessary and for keeping copies of all of the requisite paperwork. Keep in mind the following guidelines:

- You must attend 3 seminars related to engineering to obtain a semester of engineering seminar credit.
- One semester of engineering clinic credit may be granted for a suitable team design project. Discuss the project with your advisor in advance.
- Transfer credit for a *maximum of two* Engineering Science courses (E82-E85, E106) may be granted for similar courses with the equivalent of 3 credits (about 40 regularly scheduled class hours). Such transfer credit must be sought and obtained *in advance* by (1) obtaining the written approval of the Engineering faculty member who is currently teaching the Engineering Science course(s) in question and (2) submitting a Student Petition Form, which should be accompanied by copies of the catalogue course descriptions and course syllabi of the courses to be transferred. (It is a good idea to identify and seek advance approval for more than the specific courses you intend to take, in case of unexpected changes in offerings by your host institution.)
- Transfer credit for a *maximum of two* Engineering Technical Electives may be granted for upper division technical courses with the equivalent of 3 credits (about 40 regularly scheduled class hours). Such transfer credit must be sought and obtained *in advance* through submission of a Student Petition Form, which should be accompanied by copies of the catalogue course descriptions and course syllabi of the courses to be transferred. (Again, it is a good idea to identify and seek advance approval for more than the specific courses you intend to take, in case of unexpected changes in offerings by your host institution.)

- Plan to take at least some humanities/social science classes during your study abroad. After all, one of the purposes of studying abroad is to experience the different culture— rather than just take engineering classes! Also, the criteria for obtaining transfer credits for humanities/social science classes are more flexible.

B WHILE STUDYING ABROAD

We recognize that course plans may change while you are abroad. When in doubt, send e-mail to your Engineering Advisor *sooner*, rather than later, to ensure that you are taking courses suitable for transfer credit.

In order to receive transfer credit for a course, you will need to earn the equivalent of a **B** or better in that course.

And...

...HAVE A GREAT TIME!

C WHEN YOU RETURN

When you return, provide a copy of the previously approved Student Petition Form to the Department of Engineering Office and to the Registrar, together with the following attachments:

- a transcript of courses taken during your semester abroad; and
- a list of titles of the seminars you attended (if you are seeking seminar credit).

4. STUDENT PETITIONS, RESTRICTIONS, AND TRANSFER CREDITS

While the Department of Engineering has given a great deal of thought and consideration to the design of its curriculum, its faculty recognize that the curricular requirements can, occasionally, present unusual difficulties or impediments. With this in mind, the Department does entertain petitions from students who seek an exception to or a waiver of some particular requirement(s). Requests for such exceptions or waivers are submitted on a Student Petition Form (Available from the Department office or web site) and should clearly and fully articulate the reasons that the request is being made. The executed form must be signed by the Engineering Advisor, after which it is submitted through the Department's office for rapid and timely consideration by the Department's Petitions Committee. If the Petitions Committee cannot reach a unanimous decision, the petition will be brought before the Department at its next meeting.

Petitions from students who have made long-term, good-faith efforts to complete the Department's requirements, but are prevented from doing so because of circumstances beyond their control, will usually receive favorable consideration from the Petitions Committee. Further, in order to facilitate and encourage study abroad (see Section 3), the Petitions Committee is empowered to authorize a relaxation of Departmental requirements, should that prove necessary.

The Department cannot waive its requirements for students taking a major or a second major at one of the other Claremont Colleges.

The Department *does not normally grant transfer credits for more than two (2) courses taken at other institutions* by students already matriculated at HMC, except in special circumstances stemming from study abroad (see Section 3), participation in exchange programs with other colleges and universities, or readmission after a withdrawal or an ITR. Transfer credits for any such courses must be taken at approved academic institutions and be comparable to courses at the Claremont Colleges, normally representing 40 hours of regularly scheduled class distributed over at least four weeks. Students must earn a grade of B or better. Courses taken at two-year institutions must be UC transferable. Students planning to take such courses elsewhere must obtain approval in advance from the Department's Petitions Committee, as described above, and must include with their petitions the catalogue course description and the syllabus of, and the title and author(s) of the textbooks to be used in, the course at the other institution.

5. ENGINEERING HONORS AND AWARDS

Departmental Honors in Engineering are awarded by the Engineering faculty to those students who make contributions to the Department, the College, and the profession that exemplify in significant ways the professional goals of the Engineering curriculum. A student's grade point average (GPA) is not normally a criterion for Engineering Department Honors.

The Department annually awards the following awards at the beginning of the year:

- *Jack Alford and Mack Gilkeson Engineering Clinic Award* to recognize outstanding performance by a junior in Clinic. The award is named in honor of the originators of the Engineering Clinic, Professors Emeriti Jack Alford and Mack Gilkeson.
- *Davies Engineering Prize* to recognize outstanding performance by a student in *E4: Introduction to Engineering Design*.
- *J.R. Phillips Award* to the sophomore who best demonstrates developing experimental technique and engineering judgment.

The Department annually awards the following awards at the end of the year:

- *Harry E. Williams Mechanics Prize* to a graduating senior who has demonstrated noteworthy achievement in applying mechanics to engineering problems. The prize is named in honor of one of the founding faculty of the Department of Engineering, Professor Emeritus Harry E. Williams.
- *Holliday Leadership Award* to a graduating senior for demonstrated leadership in managing an engineering project team in a manner consistent with the Holliday company and family values.
- *Kopp Scholarship* is awarded to a rising senior who demonstrates a commitment to systems, controls, and other fields related to electrical engineering practice.

6. THE DEPARTMENT OF ENGINEERING FACULTY

Lori Bassman (*Computational Mechanics*)
Carl J. Baumgaertner (Adjunct; *Electronics*)
Anthony Bright (*Chemical Engineering, Hydrodynamics*)
Mary Cardenas (*Environmental Engineering, Fluid Mechanics*)
Philip D. Cha (*Structural Dynamics, Mechanical Engineering*)
Samuel DiMaggio (*Civil, Aerospace Engineering*)
Ziyad H. Duron (Department Chair; *Earthquake Engineering, Civil Engineering*)
Clive L. Dym (*Design, Structural Mechanics*)
David Money Harris (*Integrated Circuits, Computers*)
Sara Harris (*Electrical Engineering, Digital Systems Design*)
Joseph A. King (*Design, Manufacturing, Materials Science*)
Nancy Lape (*Chemical Engineering, Mass Transfer*)
Patrick Little (Engineering Clinic Director, *Transportation, Engineering Management, Civil Engineering*)
John I. Molinder (*Signal Processing, Communication Systems, Electrical Engineering*)
Elizabeth Cornelius Orwin (*Tissue Engineering, Mechanical Engineering*)
Donald S. Remer (*Engineering Economics, Engineering Management, Chemical Engineering*)
R. Erik Spjut (*Kinetics, Heat Transfer, Materials, Process Control*)
Ruye Wang (*Computers, Electrical Engineering, Vision*)
Qimin Yang (*Optical Communications, Electrical Engineering*)

PROFESSORS EMERITI

Mack Gilkeson
James E. Monson
J. Richard Phillips
Sedat Serdengecti
B. Samuel Tanenbaum
Harry E. Williams
Thomas W. Woodson

DEPARTMENT OF ENGINEERING WEB SITE

Additional information on course offerings, Department of Engineering activities, and faculty, as well as copies of the various Department forms shown in Section VIII, may be found at the Department's web site:

<http://www.hmc.edu/academicsclinicresearch/academicdepartments/engineering.html>

7. DEPARTMENT OF ENGINEERING FORMS

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ENGINEERING ADVISING FORM

STUDENT: _____ YEAR: _____

ADVISOR: _____

First Year			First Year		
Fall			Spring		
Chem 21	Gen'l Chem	<input type="checkbox"/>	Chem 22	Gen'l Chem	<input type="checkbox"/>
Chem 25	Gen'l Chem Lab	<input type="checkbox"/>	Chem 26	Gen'l Chem Lab	<input type="checkbox"/>
Math 11, 12	Calc. I, Linear Algebra I	<input type="checkbox"/>	Math 13, 14	DE's I, Multivar. Calc. I	<input type="checkbox"/>
CS 5	Struct'd Programm OR	<input type="checkbox"/>	Phys 24	Mechanics/Wave Motion	<input type="checkbox"/>
Engr 4	Engineering Design	<input type="checkbox"/>	Engr 4	Engineering Design OR	<input type="checkbox"/>
Phys 23	Mechanics/Wave Motion	<input type="checkbox"/>	CS 5	Struct'd Programming	<input type="checkbox"/>
Hum 1	Intro. to Hum & SS	<input type="checkbox"/>	Phys 28	Physics Lab	<input type="checkbox"/>
	Semester Credits	<input type="checkbox"/>	Hum 2	Intro. to Hum & SS	<input type="checkbox"/>
				Semester Credits	<input type="checkbox"/>

Sophomore Year			Sophomore Year		
Fall			Spring		
Bio 52	Intro. to Biology OR Free Elective	<input type="checkbox"/>	Bio 52	Free Elective OR Intro. to Biology	<input type="checkbox"/>
Engr 59	Engineering Systems	<input type="checkbox"/>	Engr 80	Experimental Engr	<input type="checkbox"/>
Math 61, 62	Calc. II, Prob/Stat	<input type="checkbox"/>	E8	Design Rep. & Realiz.	<input type="checkbox"/>
Phys 51	Electromagnetic/Optics	<input type="checkbox"/>	Engr Sci Core	One of E82, 83, 84, 85	<input type="checkbox"/>
Phys 53	E & M Lab	<input type="checkbox"/>	Math 63, 64	Linear Algebra II, DE'S II	<input type="checkbox"/>
Hum/SS	Hum/SS #1	<input type="checkbox"/>	Hum/SS	Hum/SS #2	<input type="checkbox"/>
	Semester Credits	<input type="checkbox"/>		Semester Credits	<input type="checkbox"/>

Junior Year			Junior Year		
Fall			Spring		
Engr Sci Core	One of E82, 83, 84, 85	<input type="checkbox"/>	Engr Sci Core	One of E 84, 85, 106	<input type="checkbox"/>
Engr Sci Core	One of E82, 83, 84, 85	<input type="checkbox"/>	Engr	Technical Elective	<input type="checkbox"/>
Engr 101	Adv. Systems Engr I	<input type="checkbox"/>	Engr 102	Adv. Systems Engr II	<input type="checkbox"/>
Engr 111	Engineering Clinic I OR	<input type="checkbox"/>	Hum/SS	Hum/SS #3 OR	<input type="checkbox"/>
Hum/SS	Hum/SS #3	<input type="checkbox"/>	Engr 111	Engineering Clinic I	<input type="checkbox"/>
Engr 121	Engineering Seminar	<input type="checkbox"/>	Engr 122	Engineering Seminar	<input type="checkbox"/>
Hum/SS	Hum/SS #4	<input type="checkbox"/>	Hum/SS	Hum/SS #5	<input type="checkbox"/>
	Integrative Experience****	<input type="checkbox"/>			
	Semester Credits	<input type="checkbox"/>		Semester Credits	<input type="checkbox"/>

Senior Year			Senior Year		
Fall			Spring		
Engr Sci Core	One of 84, 85, 106	<input type="checkbox"/>	Engr 113	Engr Clinic III	<input type="checkbox"/>
Engr 112	Engr Clinic II	<input type="checkbox"/>	Engr 124	Engineering Seminar	<input type="checkbox"/>
Engr 123	Engineering Seminar	<input type="checkbox"/>	Engr	Technical Elective	<input type="checkbox"/>
Engr	Technical Elective	<input type="checkbox"/>	Hum/SS	Hum/SS #8	<input type="checkbox"/>
Hum/SS	Hum/SS #6	<input type="checkbox"/>	Hum/SS	Hum/SS #9	<input type="checkbox"/>
Hum/SS	Hum/SS #7	<input type="checkbox"/>	Hum/SS	Hum/SS #10	<input type="checkbox"/>
	Semester Credits	<input type="checkbox"/>		Semester Credits	<input type="checkbox"/>

TOTAL CREDITS =

*E4, E8, E80, E111 are prerequisites for senior clinic

**Sequence of E82, E83, E84, E85 to suit individual preference.

***E82 and E83 are prerequisites for E106

****Could be a Free Elective if an H&SS or Engrng course satisfies IE requirement.

Name: _____ Class: _ Phone: _____

Major: _____ Advisor: _____

Petition (What do you want? Why? Has your advisor OK'd/initialed it?):

Request: _____

Rationale: _____

Advisor's Initials: ____ Petitioner's Signature: _____

This section is for Committee use; it should not be filled in by the petitioner.

This is a petition for _____

Committee's action: _____

Date: _____ Committee Chair's Signature: _____

APPLICATION FOR GRADUATION

I, _____ (Class of 2010), upon satisfactory completion of the following courses, hereby make application for graduation from Harvey Mudd College with a Bachelor of Science degree in **Engineering** using HMC Catalog 2006/2007 or HMC Catalog _____.

Place a check mark next to completed courses. Place an "IP" next to in process courses or courses to be completed in the spring semester. Course substitutions must be written in beside required course and initialed by the appropriate advisor.

Required	✓	Units	Grade
Engr 4			
8			
80			
82			
83			
84			
85			
101			
102			
106			
111			
112			
113			
121			
122			
123			
124			

Three upper division Engineering electives:
(ENGR191 can be used for only one elective with prior Engineering Department petition approval.)

Course #	✓	Units	Grade

Common Core requirements completed:

Dept.	Crs #	✓	Crs #	✓
Chem	21			
	22			
	25			
	26			
CS	5			
Hum	1			
HSA First-Year Elective	-			
Math	11		12	
	13		14	
	61		62	
	63		64	
Phys	23			
	24			
	28			
	51			
	53			
Biol	52			
Engr	59			

Intergrative Experience		
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PE Requirement:	Course #	✓
Aerobic Fitness or Team		
PE (Elective #1)		
PE (Elective #2)		

The above major program has my approval provided it is satisfactorily completed with a grade point average of at least 2.00.

Major Advisor Signature

Print your name below as you wish it to appear on your diploma.

Student Signature: _____ Student ID: _____ Date submitted: _____

To be completed by the Office of the Registrar

Total Units Completed _____
Cumulative GPA _____
Major GPA _____
PE Requirement Completed _____
IE Requirement Completed _____

AN APPROVED HUMANITIES/SOCIAL SCIENCES APPLICATION SIGNED BY YOUR HUM/SOC ADVISOR MUST BE ATTACHED.

06/18/09 NK