



THAYER SCHOOL OF
ENGINEERING
AT DARTMOUTH



Dual-Degree Program in Engineering at Dartmouth

2012-13 Academic Year Webinar Presentation

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Webinar Workings

- Audio is ONE WAY: you can hear us but we can't hear you
- Audio is available through toll number provided or your computer speakers (do not forget to un-mute your volume)
- Questions can be asked at any time through the chat feature
- We will answer questions at the end
- If experiencing technical difficulties, call 800-263-6317
- The session will be recorded and posted to our web site after the session. Slides will be made available

Carrie



Jenna



Eric Hansen





Dartmouth College



“...a superb undergraduate residential college with the intellectual character of a university, featuring thriving research and first-rate graduate and professional programs”

Founded: 1769

Affiliation: Ivy League

Students: Approximately 4,200 undergraduate, 1,800 graduate

Divisions: Undergraduate college with more than 40 departments and programs; graduate schools of arts and sciences, medicine, engineering, and business

Faculty: 608 Tenured/tenure track, 1004 total



Thayer School of Engineering



Motto: *"To prepare the most capable and faithful for the most responsible positions and the most difficult service."* —Sylvanus Thayer

Founded: 1867 by Sylvanus Thayer — one of the country's oldest professional schools of engineering

Philosophy: engineering in the context of a liberal arts education provides the single best preparation for addressing the world's problems

Approach: Small and agile, one department with all engineering disciplines. Fosters innovation and an intense spirit of camaraderie and collaboration rather than competition

Research areas: Medicine, Energy and Complex Systems

Faculty: 52 tenure track, research and instructional

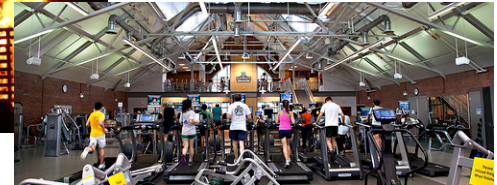
Degrees: BA, BE, MS, PhD, and MEM (Master of Eng'g Mgmt)

- **BA:** ES major is part of the Dartmouth BA program. 179 enrolled for 2011/12.
- **BE:** Graduate students take a range of courses as they develop advanced professional skills. 48 enrolled for 2011/12. Average salary of 2011 grads was \$61,142



Why the dual-degree? Typical students are:

- Natural Science, Math or CS majors
- Interested in either a career in engineering or preparation for grad school in engineering
- Open to spending junior or senior year on another campus, and a 5th year at Dartmouth
- Seeking a hands-on engineering program with small class sizes and strong student-professor interaction



Why Dartmouth College?

Food

- 10 campus dining facilities including vegetarian, vegan, kosher and halal options
- 20+ restaurants and other eateries in Hanover

Performing Arts

- Hopkins Center for the Arts attracts world-class performers
- Students can participate in theater, dance, and musical performance

Athletics

- 34 intercollegiate varsity teams, most NCAA Division 1
- 32 club teams and 24 intramural teams

Greek system with 3 co-ed, 17 male, and 11 female houses

Outdoors

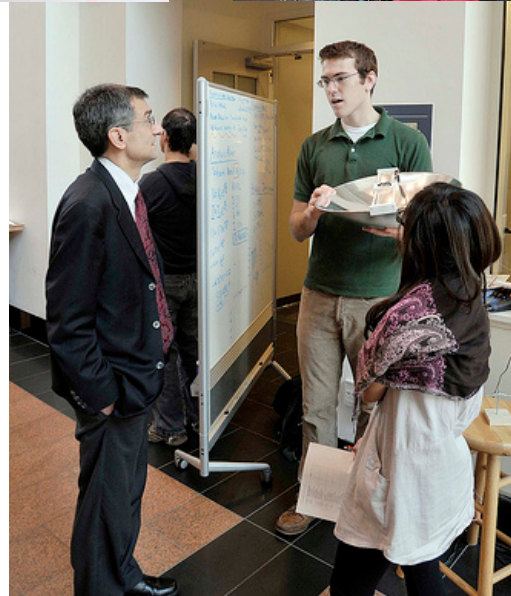
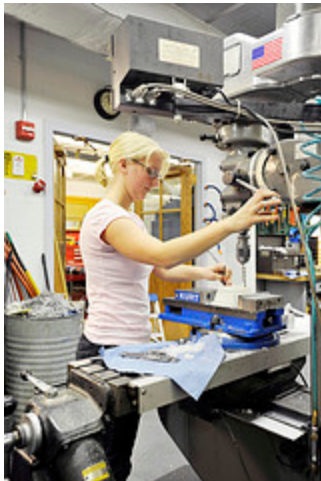
- Dartmouth outing club is the oldest and largest collegiate outing club in the country
- Numerous trips and educational opportunities including “first year trips” for which you would be eligible

Over 350 Student Organizations



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Why Thayer School of Engineering?





Program Outline:

- Junior or Senior year at Dartmouth
 - Engineering + humanities/social sciences
 - BA is earned from home institution
- Plus a 5th year at Dartmouth
 - BE is earned from Thayer School of Engineering at Dartmouth



Timing:

- Configuration is determined by you and home school preference
 - “2-1-1-1”
 - 2 - Freshman and sophomore years: home college
 - 1 - Junior year: Dartmouth
 - 1 - Senior year: home college
 - 1 - Bachelor of Engineering year: Dartmouth
 - “3-2”
 - 3 - Freshman, sophomore, and junior years: home college
 - 2 - Senior and Bachelor of Engineering years: Dartmouth
- Junior or senior year is three “terms” in Dartmouth’s year-round quarter system
 - Can begin in summer or fall
 - Any three-term combo is permitted summer-spring
 - Preliminary plan will be requested on your application



Minimum preparation for the first year

Calculus

- through vector-valued functions (typically 3)

Physics

- At least two courses (more if Physics major)
- through mechanics and electromagnetism

Chemistry

- At least one course (more if Chem major)

Computer science/programming

- At least an intro course (more if CS major)



Advanced Placement or International Baccalaureate credits are honored if awarded by your college

Additional courses beyond the minimum are recommended and considered in evaluating your application.



First year requirements

Engineering (6)

- Must: ENGS 21, 22 and 23
- 1-2 core: ENGS 24, 25, 26, 27
- 1-2 gateway: ENGS 31-37+

Humanities/Social Sciences (3)

- Broadens your liberal arts education
- Not recommended to use these electives for sciences

Mandatory	Core (1-2)	Gateway (1-2)
Intro to Engg	Science of Materials	Digital Electronics
Systems	Thermodynamics	Electronics
Distributed Systems and Fields	Control Theory	Solid Mechanics
	Discrete and Probabilistic Systems	Fluid Dynamics
		Biotechnology and Biochemical Engineering
		Chemical Engineering
		Introduction to Environmental Engineering



Second (BE) year Requirements

9 courses

- ENGS 89 & 90 (BE design project)
- One of ENGS 91, 92, 93 (applied math)
- Six more courses to fulfill breadth and depth requirements
- Details: <http://engineering.dartmouth.edu/undergraduate/be/requirements.html>





Financial Aid

- First year: Dartmouth aid unavailable
 - Many schools provide aid for their students in dual-degree programs.
 - Ask your school's advisor about availability of financial aid.
- BE Year: Aid Available from Thayer School of Engineering
 - Need-based up to maximum of full tuition
 - No aid is available for room and board, books, etc.
 - Loans may be available, depending on financial status and citizenship.





Housing/Food



First Year

- On-campus in dorms
- Meal plan is mandatory

BE Year

- Off-campus on your own
- Meal plan not available





How to Apply

1. Obtain approval from your college
 - Understand program and aid available
 - Review course creditability
2. Obtain an application form
 - from the dual-degree or twelve-college exchange advisor at your college OR
 - download the PDF file
<http://engineering.dartmouth.edu/admissions/undergraduate/dual>
3. Obtain recommendation letter from dual-degree advisor ***or*** another science professor who knows you well.
4. Return the completed application by mail
 - As soon as your fall semester grades are available
 - Request official transcript to be sent to us by the deadline
 - No later than February 1st of your sophomore year (2-1-1-1) or junior year (3-2)
Dual-Degree Program
Attn: Jenna Wheeler
Thayer School of Engineering, Dartmouth
8000 Cummings Hall
Hanover, NH 03755-8000



Acceptance

- Notification by mid-March, 2012
- In some cases midterm grades for spring semester are requested, and decision delayed
- Generally more applications are received than places available – and there is a wait list
- Commit by early April for normal admits, later date for students admitted off waiting list
- Admission to the BE year is automatic provided your grades in the first year are satisfactory. You will receive forms to fill out for program planning and financial aid.





Questions

- Slides and recorded session will be posted at <http://engineering.dartmouth.edu/academics/undergraduate/dual/>
- For additional questions:
 - Jenna Wheeler, Program Manager
 - 603-646-3677
 - Jenna.wheeler@dartmouth.edu

