Graduate Programs at The University of Maine

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University of Maine

The University of Maine is an RU/H (Carnegie classification) with approximately 9,500 FTE total students with 2,300 graduate students about equally split between full and part time. The Department has 14 faculty and approximately 40 graduate students, approximately 90% are in the PhD program.

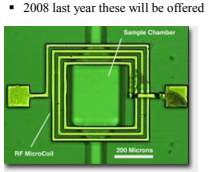
Thesis Required		Thesis Optional
PhD ***# of students*** **34**	Masters ***# of students*** **2**	Masters Engineering Physics
30 credits	24 credits	24 (36 non-thesis)
• Mechanics • E&M • QM 1&2 • Lab • Stat-Mech, • Math Methods • Solid State • Advanced elective • Research specialty elective	• Mechanics • E&M • QM • electives	• 3 courses in engineering • 3 courses in physics • electives
Recent change from 42 credits but allowed some advanced undergrad courses		More of our PhD students picking up the non-thesis degree on the way.
3 day Comp Exam Thesis defense	Thesis defense	
Comp Topics		
☺**Mechanics** ☺Stat-Mech ☺**E&M** ☺Thermo ☺**QM** ☺ Modern Physics		
Bold subjects at Graduate level, others at advanced undergrad level, modern physics includes subjects typically taught in a SR modern physics course which we do not teach.		

THE GRADUATE PROGRAM

1. Semester 1 & 2
   a. classes (typically Mechanics, Math Methods and Grad. Lab- E&M, QM)
   b. picking a research area and advisor.
2. End of Semester 2/ beginning Semester 3
   a. Form Committee
      i. 5 members on PhD committee
         1. At least 1 from outside department
         2. + External Reader
      ii. 3 members on MS
3. Each Semester
   a. Committee Meeting
      i. Student presents research results
      ii. Discuss papers, presentations, support
      iii. Discuss course progress
   b. Discuss each student progress in Faculty Meeting
4. The Graduate Students meet as a group each semester with the Graduate Coordinator and Chair to discuss issues and concerns (as well as to eat pizza).

Support

- TA (currently $18,500/yr + tuition +1/2 health insurance)
  - 19 Students
  - Students can stay on TA as long as making satisfactory progress
- RA (more $$+ Tuition + ½ health insurance)
  - 13 Students
- IGERT (much more $$ + Tuition +1/2 health insurance)- limited to 2 years support
  - 2 Students
- Compete for a University Fellowship
  - Department must subsidize to bring up to our levels
  - Department typically receive 4 summer fellowships
    - 2008 last year these will be offered



RESEARCH

Area	# of students	External Funding
Physics Education Research	8	285K
Bio-Physics	5	881K
Condensed Matter/Surface/Materials	9	600K
Astrophysics	8	*16K*
Center for Science and Mathematics Education Research[1]	*7*	*370K*
Interdisciplinary (Oceanography Computer Science, Earth Science, Chemical Engineering)	3	
Undecided	3	

1 *Center for Science and Mathematics Education Research* and associated Masters of Science in Teaching is housed in the Department involving 3 physics faculty.

CHALLENGES and CHANGES

- Department demographics
  - Down to 14 faculty + 1 lecturer
    - Faculty age
      - 5>60 years
      - 5 age 50-60
    - 1 imminent retirement/ future retirements?
    - 3 young faculty- 2 received tenure in the last two years
    - Approval to hire assistant professor in experimental nanophysics Fall 08
  - Tremendous stress to maintain undergraduate, graduate programs and service courses
  - Serious discussions to reduce undergrad course offerings
    - Combining intro physics (1 year) for algebra based course and course for engineering technology students
    - Discussing offering some courses once every two years instead of each year.
  - 2007 Graduate class is first class under new (30 credit) PhD requirement- optional for current students.
    - One driver was to make sure we offered the courses needed for degree.
    - Previous requirement (42 credits) counted advanced undergrad courses which worked against our better prepared students who did not need these courses.
    - Intent is that students take more than 30 credits.

Recent Comp. Exam Changes

Past:
Exam was offered January and August- usually few students in January.

August 2005:
The effort to produce two exams & a drastic shortening of winter break caused us to reconsider and offer the exam in August only.

May 2006:
Concerns by some faculty that studying for the exam had negative impact on research productivity so we now offer it only at end of May.

Students initially seemed unhappy with reduction in study time but appreciate extra few weeks in May after classes/exams end.

Students entering w/BS must pass by third year (two attempts). Students entering w/MS must pass within 2 years. {Have yet to formally modify rules to coincide with offering once a year}

Tenure Track Faculty Position in Experimental Nano-Physics
The University of Maine

Applications are invited for a **full-time tenure-track faculty position** at the University of Maine in the area of **experimental nano-physics** with a preferred start date of September 1, 2008 (negotiable). The position is a joint appointment between the Department of Physics & Astronomy (www.physics.umaine.edu) and the Laboratory for Surface Science & Technology (www.umaine.edu/LASST).

See Full Position Announcement at
www.physics.umaine.edu

Application review will begin on February 1, 2008 and continue until the position is filled. Electronic (pdf) submission to physics@maine.edu is encouraged. *The University of Maine is an Equal Opportunity / Affirmative Action Employer.*

For further information

Please contact *PHYSICS@maine.edu* or
McClymer@maine.edu.

Department Web Site
http://www.physics.umaine.edu/