

## Report on: *Renewing the Ph. D...The 2-4 Project*

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I met with all the graduate students in the Program on Applied Mathematics (except Andreas Glaser) on 10 November 2006. The Dean's charge and the material on the *2-4 Project* were reviewed. A lively discussion ensued.

### **Background**

1. The Program in Applied Mathematics (PAM) is tiny. Only 1 - 3 graduate students enter each year, and graduates from the PAM are actively sought for academic and industrial positions.

2. Students select a research supervisor sometime between their first summer and the end of their second year. All consult individually with the DGS in seeking advise and direction; and all are currently well placed.

3. The first year is primarily organized around taking courses and preparing for the comprehensive examinations. Courses exist for this and students are advised by both the DGS and other graduate students to determine which ones are most appropriate for their background. All students were satisfied with this process.

There are three comprehensive examinations, and they are given each spring. Students are encouraged to take at least two at the end of their first academic year.

4. Students prepare a Thesis Proposal in close coordination with the Thesis Supervisor. It is recommended that students complete this Proposal between the end of their second year and the end of their third year.

5. All students work in research groups; and closely with their thesis advisors.

6. Feedback comes from the DGS individually in the early years in the Program; from the Supervisor primarily in the later years.

7. Students are actively recruited for jobs.

### Current Status and Recommendations

1. **Size** Many students expressed the desire to increase the size of the PAM. If this cannot be done, then the students integrate more with individual research groups. *Recommendation: maintain a level of social interaction to support the identity of PAM.*
2. **Research Supervisor Selection** The current system of consulting with the DGS is working and should not be altered.
3. **Comprehensive Exams** The support of graduate students who have recently taken the exams is very helpful; the existing system should be encouraged to continue.
4. **Thesis Proposal** A written document describing the research proposed and expected outcomes is necessary to guarantee uniformity across the different interdisciplinary paths that can be taken. *Recommendation: The DGS should be responsible for guaranteeing uniformity.*
5. **Research Groups** The intense research experience was appreciated by all.
6. **Feedback** Students appreciated the feedback from the DGS and from the thesis supervisors.
7. **Careers** No student was aware of difficulty in obtaining positions of choice.
8. **Career Preparation** The only issue raised in this context was that student's do not always develop their speaking skills in the Applied Mathematics seminar – sometimes they prefer to do it in related seminars such as (i) the Theory Clique; (ii) Networking Seminar; (iii) econometrics seminar; etc. *Recommendation: the DGS confirm that every graduate student participate in at least one series in which he/she is required to give talks.*