

MSCS Department

Honors Procedures

May 20, 2010

I. General Description

The MSCS Department encourages juniors with major project interests to consult with faculty members about applying for the senior Honors program. Students must meet the GPA requirements to qualify for this program. To earn Honors in Mathematics or Computer Science, a student must complete a substantial independent research project. The topic should be chosen to demonstrate a broad and deep understanding of the chosen subject area.

Compared to a Capstone Project, an Honors Project has significantly elevated standards and expectations. In particular, an Honors Project:

- Has firm entry standards. This ensures that the student is prepared for the project.
- Requires more depth. This is typically reflected in the length of the honors paper, which is often twice as much work as a capstone paper.
- Must demonstrate a broader understanding of the field
- Must show significant originality, which may include original synthesis, integration, or understanding beyond the scope of simple revision or comprehension of existing knowledge.

II. Timeline and Institutional Procedures

These deadlines are intended to facilitate progress toward a successful Honors paper. In all cases, college deadlines supersede the ones below, and are firm. December graduates must arrange suitable deadlines one semester earlier on an individual basis.

1. Application to Department: *last Friday of April (Junior year)*
2. Provisional Application to Department: This deadline applies only to (a) students studying away in spring of the junior year, or (b) for sanctioned resubmissions of proposals in the previous spring: *end of 2nd week of fall term (Senior year)*
3. Progress Presentation in Department Seminar: *Late November / early December*
4. Progress report due to supervisor and at least one other member of Honors committee: *January 15*
5. January evaluation completed: *January 25*
6. Final abstract due and departmental selection of Honors committee: *March 1*
7. Final paper due for readers: *Monday after Spring Break*
8. Final Oral evaluation: Completed by *the last Friday of April*
9. Library copy of paper due, with all corrections, as specified by the Honors committee, due: *Last day of spring semester classes*

A student may earn up to 6 credits for independent work in the department in pursuit of the research for the Honors Project. For guidelines, specific deadlines, and information about the College's Honors program, see

<http://www.macalester.edu/academicprograms/honors.html>

III. Application to Department

Entry standards: To be accepted into the Honors Program in the Mathematics major or Computer Science major, a student must satisfy the following:

1. A minimum College grade point average of 3.3.
2. A minimum grade point average of 3.5 in courses taken in the major.
3. The student must have demonstrated the discipline, skills, and the depth of understanding necessary for successful completion of an Honors Project.

Timing: All juniors, including those who are studying away in the spring term, must indicate their interest in pursuing a senior Honors project by filing a project proposal with the proposed faculty supervisor by the last Friday in April. We highly recommend that students studying away during spring of the junior year draft their proposal in consultation with their proposed Honors supervisor before leaving campus.

Student research proposals: Students must prepare a proposal that includes:

1. A project description and title.
2. The name of a faculty sponsor in the department.
3. A timeline describing when and how the research and writing will take place.

Faculty endorsement: Each student proposal must be accompanied by a written endorsement from a faculty member describing:

1. The qualifications of the student.
2. The feasibility of the project, and the likelihood of successful completion.
3. Whether the student has adequate course work for the proposed project.
4. The sponsor's willingness to supervise the project.

Evaluation of proposals: The Department will evaluate proposals based on: (1) the intellectual clarity and promise of the project; (2) the amount of prior preparation for the project; and (3) an assessment of the student's capacity to successfully carry out the project.

The Department will determine one of the following.

- A proposal may be approved.
- A proposal may be rejected as unsuitable.
- A proposal may be provisionally approved and require revision and resubmission in the fall. In this case, a proposal adhering to the above guidelines must be submitted to the department by the end of the second week of classes in the fall. The department will accept or reject any such proposals on or before the last Friday in September.

Examples of successful Honors research proposals: **link to webpage with good proposals.**

IV. Progress Presentation in Department Seminar

Honors students will give a short overview of their progress during a Department Seminar in late November or early December. This presentation will be aimed at both faculty and students. Although students may not have research results at this time, they are expected to 1) describe the research problem they are addressing, 2) describe why the research problem is important, and 3) describe how the research problem relates to the existing research literature.

V. Progress Report and January Evaluation

Timing: (A student who will not be on campus during January must complete this requirement before leaving campus.) To continue in the Honors Program in Mathematics or Computer Science, the student must satisfy a mid-project evaluation in January of the senior year.

Progress report: The student will submit a progress report to the committee, to include a project outline and annotated bibliography, by January 15. This report is to be 8-10 pages long, and must be submitted to both the supervisor and the other identified faculty reviewer. The expectation is that the content of this progress report will be incorporated in the Honors paper.

Evaluation: The faculty supervisor and at least one other member of the Honors committee will evaluate the student's progress. These two will meet with the student to discuss the report, and recommend to the department whether the project should be continued. The department will then determine whether the project should be continued as an Honors project.

Honors projects that do not continue: Projects that the department determines should not continue as Honors projects will continue as Capstone Projects.

VI. Final Evaluation

Successful completion of the Honors Project requires the approval of the student's Honors Committee. The Honors Committee consists of the faculty supervisor, a second departmental faculty member, and a third faculty reviewer, preferably from outside the department. All committee members must sign the Project Completion Form for the project to be approved.

An Honors Project culminates in the following three artifacts.

1. An Honors paper and abstract. These are due to the Honors Committee on the Monday following spring break.
2. A public presentation of the work, in a venue approved by the department. Normally this will be on Capstone Day. It cannot be given in a regularly scheduled class.
3. An oral examination on the substance of the honors project. This examination will involve the honors student, the Honors Committee, and interested members of the Macalester community. This event will include presentation and discussion of the honors material. The oral examination will take place by the last week of April.

The student's Honors Committee will reach consensus on one of the following evaluations of the project:

1. To accept the project, although some changes may be required. The committee will specify one of three options for this revision. The committee may
 - a. delegate final approval to the supervisor
 - b. require final committee approval
2. To reject the project for Honors but recommend that the project be accepted as a Capstone project;
3. To recommend that the project be rejected as unacceptable.