BIOLOGICAL SCIENCES HONORS PROGRAM
INFORMATION FOR INTERESTED JUNIORS

Optional Info Sessions (Duplicate Sessions):

- Thursday, March 10, 2016, G01 Stimson, 4:45-5:30 pm
- Friday, April 8, 2016, G01 Stimson Hall, 12:20-1:15 pm

Program Deadlines:

- Application and research proposal are due by Wednesday, June 1, 2016. Submit electronically to biohonors@cornell.edu.

The 2016-2017 Honors Committee

<table>
<thead>
<tr>
<th>Research Group</th>
<th>Group Leader</th>
<th>Phone</th>
<th>E-mail</th>
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<tbody>
<tr>
<td>Animal Physiology</td>
<td>Professor Ellis Loew</td>
<td>5-4744</td>
<td>erl1</td>
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<tr>
<td>Biochemistry</td>
<td>Professor Gerald Feigenson</td>
<td>gwf3</td>
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<tr>
<td>Ecology and Evolutionary Biology</td>
<td>Professor Irby Lovette</td>
<td>4-2140</td>
<td>ljl2</td>
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<tr>
<td>Genetics and Development</td>
<td>Professor Michael Goldberg</td>
<td>4-4802</td>
<td>mlg11</td>
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<tr>
<td>Microbiology</td>
<td>Professor Eugene Madsen</td>
<td>5-2417</td>
<td>elm3</td>
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<tr>
<td>Molecular and Cell Biology</td>
<td>Professor Yuxin Mao</td>
<td>5-0783</td>
<td>ym253</td>
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<tr>
<td>Neurobiology &amp; Behavior</td>
<td>Professor Christiane Linster</td>
<td>4-4351</td>
<td>cl243</td>
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<tr>
<td>Plant Biology</td>
<td>Professor Thomas Owens</td>
<td>5-8516</td>
<td>tgo2</td>
</tr>
<tr>
<td>Honors Coordinator</td>
<td>Colleen Kearns</td>
<td>5-5233</td>
<td>cmk4</td>
</tr>
<tr>
<td>Honors Program Administrative Assistant</td>
<td>Pamela Torelli</td>
<td>5-6859</td>
<td>plr2</td>
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For more information on the Honors Program, please come to 216 Stimson Hall or contact Pamela Torelli.

Admission to the Honors Program

Any CALS major may apply to Biology Honors if your research has sufficient biological content. First check with the Honors faculty coordinator in your major. Students in Arts & Sciences must do Honors in their major.

For admission to the Biological Sciences Honors Program, students must have:

- completed at least 30 credits at Cornell or have a junior status as a transfer student.
- an overall Cornell cumulative grade-point average of at least 3.0.
- a Cornell cumulative grade point average in all biology, chemistry, mathematics, and physics courses of at least 3.0.
For January & May 2017 Graduates

Students must maintain the 3.0 Cornell cumulative and science GPA through graduation. Interested candidates with a GPA below 3.0 are welcome to make an appointment to discuss options with Colleen Kearns, Honors Coordinator.

Application Requirements
- Applicants must be at least a second semester junior planning on graduating in January or May 2017.
- Application must include a 1-2 page Honors Research Proposal.
- Applicants are encouraged to attend a 2016 Honors Seminar Presentation in May. (Schedule published on OUB Home page in spring)
- Application to the program is found on the Bio Honors web page.

Deadline for Application and research proposal is Wednesday, June 1, 2016 to biohonors@cornell.edu.

Program Requirements
Candidates are assigned to an Honors Faculty Group Leader in their research area (see faculty committee on Pg. 1 and on Bio Honors site). Students will
1) Report on their research projects in a mandatory group meeting with the Honors Group Leader in the fall semester or beginning of spring semester (see more below).
2) Attend a second mandatory spring meeting with Colleen Kearns, Program Coordinator, to go over the process for thesis submission. See separate program timeline for dates.

The Honors Research Supervisor
Students must work with a current Cornell faculty member who agrees to oversee their Honors research. Students may work with any faculty member on campus as long as the content of the project is biological in nature. The Honors Committee will evaluate all proposals for sufficient biological content at the time of application. Thesis supervisors should not be on sabbatical leave in the spring of the graduation year.

Financial Support for Honors Projects
Limited funding may be available from a student's college to help purchase supplies for Honors research. Students should consult their research advisor to identify research expenses for reimbursement and contact their college directly. Students in the College of Agriculture and Life Sciences should contact Donald Viands, Associate Dean and Director of Academic Programs in 140 Roberts Hall. Proposals for CALS funding will be accepted in the fall. Students in the College of Arts and Sciences should contact David DeVries, Associate Dean of Undergraduate Education, in 172 Goldwin Smith Hall. Proposals in Arts and Sciences are accepted on a rolling basis.

Honors Research Groups
Accepted students will be assigned to the Honors Research Group that is the best fit for the content of their project-see Honors Faculty Committee on Page 1. Each research group will meet towards end of fall semester or in January. At this time, students will informally present on the nature of their project and the relevant technical procedures. In the spring semester, students will submit their thesis in early April and give a public presentation of their research in an Honors seminar or poster session at the end of the semester. Attendance is mandatory for the research group meeting. The Honors Group Leader will inform students of the time and place of these meetings.
The Thesis
The research supervisor, two anonymous faculty reviewers, and the Honors Committee evaluate the Honors thesis submitted by the candidate. The thesis should be written in the form of a research manuscript in a leading journal in the disciplinary area of research. Students should work with their research supervisor to identify a journal in their field. In general, the thesis should consist of an abstract, short introduction, relevant materials and methods, a concise presentation of the meaningful data, and a discussion of the conclusions that does not delve into inappropriate speculation. Generally, the thesis should not exceed 20 typewritten pages, double-spaced, but not including figures and tables. The student should seek the guidance of his or her research supervisor and should conduct a thorough literature search on the topic. While an extensive literature review should not be included in the thesis, we expect the student to indicate in the discussion and conclusion parts of the thesis how the results and findings contribute to the scientific understanding/advancement of the problem. Although the research supervisor must decide if the student’s results are of a sufficient amount in quality or reliability to justify their presentation in an Honors thesis, the ultimate responsibility for the thesis is the student’s. Examples of previous Honors theses are available in the Office of Undergraduate Biology (216 Stimson Hall), in Mann Library, or online at http://ecommons.library.cornell.edu. The Honors Faculty Committee meets in May to review theses submitted and formally award the level of Honors.

Timeline
1. Application for Admission: Application for admission and a 1-2 page research description are due to biohonors@cornell.edu by 11:59pm, Wednesday, June 1, 2016.

2. Thesis Progress Report: A progress report of the thesis must be submitted to your Honors Group Leader in October 2016. The outline must include a brief introduction identifying the subject of your research. It must detail methods, current results, and literature cited. The student must include a list of future experiments.

3. Completing the Honors Process Info Session (MANDATORY FOR ALL HONORS CANDIDATES): Students must attend this info session in February, 2017. January 2017 graduates will meet separately with Colleen Kearns. Please contact Pamela Torelli (plr2) in the fall to schedule.

4. Thesis Submission to Research Supervisor: One copy of the thesis must be submitted to the honors research supervisor for evaluation just after Spring Break.

5. Formal Thesis Submission to Honors Group Leader: The completed thesis is to be submitted to the Honors Group Leader by mid-April 2017. Note: This manuscript is used to judge level of Honors. Data collection and analysis must be complete by this point.

6. Thesis Reviews: Two anonymous biology faculty reviewers will review the thesis. The reviews will be factored into the level of Honors.
For January & May 2017 Graduates

7. The research supervisor will submit an evaluation of the thesis to the Honors Group Leader. The evaluation will include assessment of the significance of the problem, the particular accomplishments of the student in solving the problem, and the quality of the thesis.

8. Candidates have a chance to revise thesis based on reviewer comments. If the reviewers suggest revisions, the Honors candidate, with consultation from their thesis advisor, must consider these suggestions and submit a letter to the Honors Research Group Leader addressing the required revisions.

9. The final revised thesis is due to the Honors Group Leader by the end of the May finals period. The Honors Committee will then review all recommendations. Students will be notified of their level of honors in late May.

Honors Presentations
All Honors candidates will give a public presentation on their Honors research at the end of the spring semester. The presentation will be either at a scientific poster session or a 10-minute talk in a department seminar. Dates of presentations will be announced in late March 2017.

Level of Honors
Recommendation to the faculty that a candidate graduate with honors is the responsibility of the Honors Program Committee. The quality of the thesis, as judged by the reviewers and the Honors group leader, along with the student’s final grade point average will determine the level of honors awarded. Students in the College of Arts and Sciences will be awarded Latin honors for their work. Students in CALS will receive Distinction in Research, with no level recorded on their diploma.