LAS TEACHING CIRCLE ON UNDERGRADUATE RESEARCH

FINAL REPORT

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FINAL REPORT

Under the auspices of the LAS Teaching Academy, a teaching circle was formed in fall 2010 around the theme of undergraduate research. The purposes of the circle were to share department/unit experiences, develop new ideas for adoption at the department/unit and college levels, and encourage collaboration when appropriate across departments.

The teaching circle was confined to departments/units with a significant social science component, given some significant commonalities in research methodology and student profiles. Six departments/units agreed to participate and designated a faculty representative: Political Science, Sociology, Psychology, Geography, Anthropology, and Global Studies respectively. Another department, Economics, received multiple invitations to join, but never responded.

Circle members began by filling out a survey on current undergraduate research practices (see Appendix) and sharing those results among the group. The survey also formed the basis for discussions along the lines of six interrelated topics: research methods courses, undergraduate research practicums, senior theses, capstone and other research experiences, undergraduate awards and symposia, and faculty incentives respectively.

Circle members met four times during the fall 2010 semester. At the first meeting, members met with Peter Mortensen of the Provost’s Office, who is responsible for the Undergraduate Research Symposium. Immediately after that meeting, members attended a lecture by Professor James Scott of Oklahoma State University, one of the pioneers of NSF sponsored Research Experience for Undergraduates (REU) programs in political science. Members then had three follow-up meetings at which they discussed the six categories of issues noted above.

The following represent consensus conclusions and recommendations from those discussions. The organizational level (department/unit, cross-unit, college) for the implementation of specific recommendations varies according to the specific suggestion at hand.

Research Methods Courses

- Current practice on whether such courses exist and whether they are required vary across departments/units.
- A disciplinary-based research methods course should be required for all majors in each department/unit.
- Such a required course should be taken following completion of the introduction or gateway course for the discipline, but prior to upper-division courses. For most
departments/units, this would likely be at the 200-level and taken during the sophomore year, although this depends on department/unit needs and curriculum.

- Introduction or gateway courses in the discipline should include some elements of methodology and research design.
- Some departments/units might need separate tracks or courses to reflect the methodological diversity in their disciplines.
- Many of the circle’s departments/units would benefit by more advanced, cross-listed or shared courses that deal with specific research approaches or techniques (e.g., survey or ethnographic research). There might not be enough student demand or faculty resources for any individual department/unit to offer such courses. It is also the case that cross-listed courses might prevent unnecessary duplication across departments/units.
- Some cross-listed or shared courses might be offered in online formats, whose length and credit would vary according to subject matter. Certain courses might not be amenable to online formats, however, given the hands-on or field work requirements.
- Cross-listed or shared courses, especially those in online formats, will require some coordination and resources from LAS.

Undergraduate Research Practicum Courses

- Research practicum courses are distinct from research methods courses, independent readings courses, or senior theses. Practicum courses involve undergraduates carrying out original research (unlike a readings course), but generally associated with or derivative from the sponsoring faculty member’s research agenda. Such a course would be taken after completing a research methods course, and prior to or in conjunction with the completion of a senior thesis.
- With the exception of Psychology, departments/units do not have formal undergraduate research practicum courses. Instead, departments/units use independent study courses on an ad hoc basis to facilitate undergraduate research with a faculty member.
- Creation of specific practicum courses could increase the number of students participating in undergraduate research.
- Creation of specific practicum courses would help standardize the requirements and expectations for such undergraduate research experiences.
- Such courses should include clear expectations involving time spent and duties performed.
- Such courses might be graded or ungraded (S/U) depending on the requirements (e.g., lab work, data collection, etc.).
- Any graded course should include a suitable paper or series of writing requirements.
- Such a course could be a gateway to senior thesis or capstone experiences, although not necessarily required.

Senior Thesis

- All the departments/units involved have some course rubric for senior theses, but few are courses dedicated specifically to this end and most theses are completed on an ad hoc basis.
- There is great variability across departments/units on the number of students who complete senior theses every year.
- A target goal for the number of students who complete senior theses every year should be approximately 1 per faculty FTE, which is based on consideration of faculty time and student qualifications.
• There should be some minimum GPA qualification for students to undertake a senior thesis, while maintaining some flexibility to accommodate meritorious students who do not qualify but nevertheless are capable of completing a high quality thesis.

Other Capstone and Research Experiences

• One size doesn’t fit all students, and not every student is qualified to complete and/or interested in a senior thesis.
• Departments/units should consider other mechanisms to expose students to undergraduate research; these include laboratory experiences, internships with a writing component, aforementioned undergraduate research practicums, honors programs, experiential learning opportunities, and the like.
• In developing such experiences, the emphasis should be on advanced work rather than merely extra work.
• Reiterating the consensus noted above, students need to have a firm foundation in research logic, basic methodological skills, and the like from previous coursework in order to take full advantage of any research opportunities.
• There was some concern that transfer students to the major (internal and external to the UI) might not have some foundational training, and it was unclear how to rectify that problem.

Awards/Poster Sessions/Undergraduate Research Symposium

• There is considerable variation across the department/units on current practices with some well advanced in all aspects and others without any established practices or protocols.
• Each department/unit must undertake a better effort to publicize and recruit student participation in the Undergraduate Research Symposium.
• Given that posters are an expensive burden ($75-100) on students, a hardship fund, provided by the college and/or the provost’s office (in lieu of lunch) should be created to subsidize participation for those who cannot afford such posters and who have no other source (e.g. James Scholars, ACDIS) for the posters.
• Each department/unit should sponsor a poster session or suitable venue for the presentation of undergraduate research within its own department/unit, in addition to other opportunities. These should be open to faculty, parents, alumni, and other students in the major.
• Cash awards and other suitable recognition should be given to students who complete the best undergraduate research in their department/units.
• Some departmental/unit scholarships might be tied to undergraduate research rather than exclusively tied to course performance.

Faculty Incentives

• There are currently few, if any, incentives or rewards for faculty members who participate in undergraduate research activities.
• Ideally, service with respect to undergraduate research should be reflected in yearly evaluations and promotion/tenure reviews as is service to graduate students.
• Department/units should create some award or other compensation to faculty members who perform outstanding service to undergraduate research. Incentives and rewards for faculty members who contribute such service outside of his/her home department/unit (on
a 0% appointment, or for a unit without tenure-track faculty) might have to be supplied at
the college level.
APPENDIX

LAS TEACHING CIRCLE ON UNDERGRADUATE RESEARCH

Department ___________________________________________

Number of Majors _____________________

1. Does your department have a “research methods” course? Is it required of all majors?

2. Does your department have a “research practicum” course in which undergraduates can receive credit for doing research with a faculty member?

3. Does your department have a senior thesis option? Is there a formal senior thesis course or some systematic process for assisting senior thesis students?

4. Does your department have other programs that incorporate undergraduate research into courses?

5. Does your department sponsor any events that showcase undergraduate research? Are there any awards given for undergraduate research?

6. Does your department provide any incentives to faculty with respect to undergraduate research?

7. Please note any else relevant to your department and undergraduate research.