

Academic Years: 2015–2016 & 2016–2017

Department: Ecology

Program : Ph.D. & M.S.

AY 2015–2016

1: Demonstrate a substantive breadth of knowledge of the field and sub-disciplines of ecology.

In AY 15–16 five Ph.D. students and seven M.S. students took their qualifying exam which focuses on broad ecological knowledge. All students passed without any recommended remedial coursework assignments or actions. In addition, nine students took BIOE 554 – Foundations of Ecology and Management – which emphasizes the breadth of the field of ecology. All nine students surpassed the minimum requirements on oral presentations and literature synthesis, exhibiting a successful demonstration of their breadth of knowledge of the field and sub-disciplines of ecology. However, student evaluations identified issues with changes in the structure and objectives of the course, and the course objectives and content were discussed extensively in faculty meetings. Consequently, the following year (AY 16–17) the course was reassigned to a new faculty member and the content was returned more to the original intent.

2: Demonstrate effective written and oral communication of scientific material, both from original and other sources.

In 2015–2016 eight M.S. students took their comprehensive exam (simultaneous to their thesis defense) and one Ph.D. student took their written & oral comprehensive exam. All exhibited effective written and oral communication of scientific material. In addition, in Spring 2016 eleven students took BIOE 555 – Communication in Ecological Sciences – and demonstrated effectiveness in oral presentations in multiple formats. Collectively, these data sources demonstrate effective effective written and oral communication of scientific material, both from original and other sources.

3. Conduct substantive original research and produce written and oral reports of the body of work.

In AY 2015–2016 eight M.S. students defended their thesis and one Ph.D. student defended their dissertation. All were successful, demonstrating their ability to conduct substantive original research and produce written and oral reports of the body of work.

4. Conduct scholarly and professional activities in an ethical manner.

Ethical behavior is assessed in the comprehensive exam and defense. All students taking their comprehensive exam or defending their dissertation exhibited good understanding of the ethical conduct of research. In addition, federally funded graduate students completed the CITI Responsible Conduct of Research training.

5. Contribute to the development of the field of ecology and/or scientifically based natural resource management.

In calendar year 2015 graduate students in the Ecology Department contributed to 20 refereed publications. Students in multiple labs presented papers or posters at meetings ranging from the Ecological Society of America to state Wildlife Society meetings.

Overall: In general the Ecology Department graduate program remains strong and productive. The Foundations of Ecology & Management and the Communications on Ecological Science courses are doing an excellent job in developing professional and speaking skills in graduate students, and the publication rate from the program is quite satisfactory.

AY 2016–2017

1: Demonstrate a substantive breadth of knowledge of the field and sub-disciplines of ecology.

In AY 2016–2017 seventeen graduate students took the Foundations of Ecology and Management course. All seventeen students surpassed the minimum requirements on oral presentations and literature synthesis, exhibiting a successful demonstration of their breadth of knowledge of the field and sub-disciplines of ecology. In response to the data-driven changes from 2015 the revised course received much higher student evaluations and interviews with graduate students reinforced much higher satisfaction with the revised course. In addition, nine M.S students and five Ph.D. took and passed their qualifying exam.

2: Demonstrate effective written and oral communication of scientific material, both from original and other sources.

In AY 2016–2017 seven M.S. students passed their comprehensive exam and successfully defended their thesis. In addition, one Ph.D. student took and passed their written & oral comprehensive exam. One Ph.D. student successfully defended their dissertation. In all cases, graduate students have shown impressive oral presentation skills at their defense, although their technical writing skills could be improved. Since we no at present have sufficient capability to offer a formal course in scientific writing the faculty have agreed to re-double their efforts in guiding thesis and dissertation preparation.

3. Conduct substantive original research and produce written and oral reports of the body of work.

As noted just above, graduate student oral presentations have greatly improved since the implementation of the Communication in Ecological Sciences course. Thesis and dissertation chapters often still need work, but students are then encouraged to re-write the chapters for publication, which greatly sharpens their writing skills.

4. Conduct scholarly and professional activities in an ethical manner.

Ethical behavior is assessed in the comprehensive exam and defense. All students taking their comprehensive exam or defending their dissertation exhibited good understanding of the ethical conduct of research. In addition, federally funded graduate students completed the CITI Responsible Conduct of Research training.

5. Contribute to the development of the field of ecology and/or scientifically based natural resource management.

In 2016 Ecology Department graduate students contributed to 31 refereed publications and numerous poster and oral presentations at national and international meetings.

Overall: We determined from the data that the graduate program within the department is quite strong and continues to function well. We corrected the one problem identified in the previous year and re-evaluated the role of the Communication in Ecological Science course as well. That course was determined to serve us very well.