

**AU College of Veterinary Medicine**  
**Undergraduate Research in Veterinary Biomedical Sciences (VBMS)**

**VBMS 4987 – Honors Research**

**Available: Spring, 2010**

**Credit:** Variable (1-3h/Semester)

Maximum 9h (inclusive of hours taken as VBMS 4997 – Honors Thesis)

Cannot be taken simultaneously with VBMS 4997

**Graded:** Yes (See below)

**Prerequisites:** Honors College and Junior or Senior standing

Approval by AU-CVM faculty mentor

Approval by Associate Dean for Research & Graduate Studies

**Environment:** Students will work with AU-CVM faculty mentors in established research environments as approved by the Associate Dean for Research and Graduate Studies at the AU-CVM.

**Learning Outcomes:** Honors research experiences will be structured on a student-by-student basis by members of the AU-CVM/VBMS faculty. Expected outcomes for each research experience must be defined, in writing, by the mentor and a document, signed by both student and mentor, must be filed in the Office of the Associate Dean for Research and Graduate Studies (ORGS) in the AU-CVM and with the AU Honors College (as required) in advance of the initiation of all undergraduate research programs.

Broadly, learning outcomes will include, but will not necessarily be limited to: (1) introduction to/experience with the scientific method and hypothesis testing; (2) development and/or refinement of a technical skill set(s) appropriate to the scientific discipline (ex. animal-handling skills, laboratory safety, validation of one or more analytical biotechniques); (3) development/refinement of written and oral communication skills associated with maintenance of a laboratory notebook and preparation of formal written and oral summaries of research activities.

**Course Content:** Each research experience for undergraduate honors students (REU) will be unique. Therefore, content cannot be standardized. However, AU-CVM/VBMS faculty mentors will define - in writing - the goals and aims of proposed honors REUs with a breakdown of basic activities, definition of all deliverables and a timetable. This 'syllabus' and research plan will be signed by mentor and student and filed in both the Office of the Associate Dean for Research and Graduate Studies (ORGS) at the AU-CVM and with the Honors College as required.

**Project Requirements for Students:** Students will be required to: (1) maintain a laboratory notebook (a copy of which is to remain as property of the mentor/PI laboratory); (2) compose and submit a written summary of the research experience; and (3) prepare and deliver an oral presentation (~20 minutes using Powerpoint or equivalent software) in review of the research experience. The latter will be presented to the AU-CVM/VBMS mentor, members of the sponsoring laboratory and guests as deemed appropriate by the mentor.

**Grading:** Attendance and overall work ethic 25%; Laboratory technique and lab notebook quality 25%; Written research summary report 25%; Oral research summary presentation 25%; Grades: 90-100 (A), 80-89 (B), 70-79 (C), 60-69 (D), <60 (F).