**Syllabus**

**Course Information**

BIO 495. Biotechniques . Section *< Section # >*

1 credit

*< Semester and Year >*

Meeting time: Varies with research mentor.

Location: Varies with research mentor.

**Instructor Information**

Dr. Sam Prins

Office: Bioscience 2001C

Phone: 568-6733

Email: prinssc@jmu.edu

Office hours: see <http://www.jmu.edu/biology/office_hours.shtml>

**Goals of the Course**

To learn research techniques and theory. To give you practical experience in scientific research. Experience will be gained in data collection and analysis.

This course will fulfill the following Department of Biology Academic Objectives:

1. Formulate a hypothesis and identify relevant variables necessary to test that hypothesis

2. Design and execute experiments to test hypothesis

3. Obtain data

4. Organize data

5. Analyze and interpret data

6. Evaluate a statement, hypothesis, or claim using different kinds of evidence, including qualitative and quantitative observations and experimental results.

7. Locate and use reliable sources of scientific information

8. Critically evaluate a paper from the primary scientific literature.

9. Synthesize information and concepts, and apply that knowledge to new situations.

**Nature of Course Content**

**Course Description**

BIO 495. Biotechniques (0, 4). 1 credit. *Offered fall and spring.*

Students are trained in research theory and techniques. Students must contact and make arrangements with a supervising instructor in the term prior to registration. May be repeated for a maximum of two credits when course content changes. Offered as credit/no credit only. *Prerequisite: GPA of 2.5 or greater.*

Prerequisites: A Biology GPA of 2.5 or better, and permission of the instructor.

**Assignments and Due Dates**

Varies with research mentor. Students will work independently, with regular meetings with the mentor. The work will be based on a research project as described by the research mentor.

The exact nature of the work will be determined on an individual basis, and will include standard procedures commonly used in the research mentor’s laboratory.

**Methods of Evaluation**

**Expectations**

Varies with research mentor. General expectations include:
Productive contributions to the research project.
Maintenance of a lab notebook.
Adherence to all lab policies.

The research mentor may require a research paper, poster, journal log, annotated data report or written summary statement for the completion of the course.

**Grading**

Credit / no credit only. Grades of WP and WF will not be given out in this class.

**Requirements and Policies**

**Required Texts**

None

**Academic Honesty**

Policies for academic honesty and plagiarism can be found here: <http://www.jmu.edu/syllabus/>

**Adding/Dropping Classes**

Policies for adding and dropping courses can be found here: <http://www.jmu.edu/syllabus/>

**Disability Accommodations**

Policies for disability accommodations can be found here: <http://www.jmu.edu/syllabus/>

**Inclement Weather Policies**

Policies for inclement weather can be found here: <http://www.jmu.edu/syllabus/>

**Religious Observation Accommodations**

Policies for religious observation accommodations can be found here: <http://www.jmu.edu/syllabus/>.