

| <b>BIO 495 – 1</b>      | Semester:                                       | Fall, 2014   |
|-------------------------|---|--|
| <b>Research Project</b> | Days:<br>Room:<br>Lab. dow                      | N/A  |
| in Biology A/B          | Lab – day:<br>Lab–Room:                         |  |
|                         | Prerequisite: Email:<br>Biology credits Office: | Dr. Carol Gibbons Kroeker<br>ckroeker@ambrose.edu<br>403-410-2000, ext 5910<br>A 2156<br>Tues. / Thurs. 11:00 – 1:00 |
|                         |   | or by appointment  |

# **Course Description:**

This course is the first course of a 2 semester research project (fall and winter). In this course, the students will choose a research project of their choice, perform background research, pilot experiments, and write a research proposal. The research will continue in Course B.

# **Further Course Information:**

This course will rely on independent work, in conjunction with a research supervisor who you will meet with on a regular basis.

# **Expected Learning Outcomes:**

1. Students will gain a greater understanding of fundamental biological principles

- 2. Student will learn the process of developing and experimental protocol and carrying out the experimental process
- 3. Students will learn the laboratory techniques essential to research in biology.
- 4. Students will design and carry out a research project

## **Important Dates:**

| First day of classes:                                      | September 3, 2014          |
|--|----------------------------|
| Registration revisio<br>period:                            | n September 14, 2014       |
| Last day to reques<br>revised examination:                 | st October 27, 2014        |
| Last day to withdray from course:                          | <i>w</i> November 12, 2014 |
| Last day to apply for<br>time extension for<br>coursework: |                            |
| Last day of classes:                                       | December 9, 2014           |

| Final Exam: | N/A |
|-------------|-----|
| Time:       |     |
| Room:       |     |

and be able to present this in written and oral formats.

# **Requirements:**

Students will choose a research topic of choice, perform a literature search and literature summary before writing up a research proposal (identifying a new research question and describing an experimental protocol). Pilot experiments will be completed by the student.

## Submission of Assignments:

The research proposal and literature review will be due by the end of term.

### Attendance:

Regular meetings with the research supervisor must be scheduled and attended.

## **Evaluation:**

| Mark Distribution | : | Literature Review       | 30% |
|-------------------|---|-------------------------|-----|
|                   |   | Experiment Proposal     | 30% |
|                   |   | Experimental design     | 20% |
|                   |   | Pilot Experimental Work | 20% |

### **Grade Summary:**

The available letters for course grades are as follows:

| Grade | Percent | Grade<br>Point Value | Description   |
|-------|---------|----------------------|---|
| A+    | 96-100  | 4.00                 | Outstanding   |
| A     | 92-95   | 4.00                 | Excellent - superior performance, showing<br>comprehensive understanding of subject<br>matter.    |
| A-    | 88-91   | 3.70                 |   |
| B+    | 83-87   | 3.30                 |   |
| В     | 78-82   | 3.00                 | Good-clearly above average performance with<br>knowledge of subject matter generally<br>complete. |

| B- | 73-77 | 2.70 |   |
|----|-------|------|---|
| C+ | 68-72 | 2.30 |   |
| С  | 64-67 | 2.00 | Satisfactory – basic understanding of the subject matter. Grade point average below 2.00 is not sufficient for promotion. |
| C- | 60-63 | 1.70 | Minimum grade required if needed as a<br>prerequisite course  |
| D+ | 55-59 | 1.30 |   |
| D  | 51-54 | 1.00 | Minimal pass – marginal performance; generally<br>insufficient preparation for subsequent courses<br>in the same subject. |
| F  | <50   | 0    | Fail – unsatisfactory performance or failure to<br>meet course requirements.  |

### **Textbook:**

Research papers and journals will be used, as well as reference textbooks.

### **Policies:**

All students have received an Ambrose e-mail account upon registration. It is the student's responsibility to check this account regularly as the Ambrose email system will be the professor's instrument for notifying students of important matters (Cancelled class sessions, extensions, requested appointments, etc.) between class sessions. If students do not wish to use their Ambrose accounts, it is highly recommended that they forward all messages from the Ambrose account to the other account.

During the **Registration Revision Period** students may to enter a course without permission, change the designation of any class from credit to audit and /or voluntary withdraw from a course without financial or academic penalty. These courses will not appear on the student's transcript. Courses should be added or dropped on the student portal by the deadline date, please consult the List of Important Dates. After that date, the original status remains and the student is responsible for related fees.

Students intending to withdraw from a course after the Registration Revision Period must apply to the Office of the Registrar by submitting a Request to Withdraw from a Course by the **Withdrawal Deadline**, please consult the List of Important Dates. Withdrawal from courses after the Registration Revision period will not be eligible for tuition refund. A grade of "W" will appear on the student's transcript.

Students wishing to withdraw from a course, but who fail to do so by the applicable date, will receive the grade earned in accordance with the course syllabus. A student obliged to withdraw from a course after the Withdrawal Deadline because of health or other reasons may apply to the Registrar for special consideration.

Students, who find a conflict in their exam schedule must submit a **Revised Examination** Request form to the Registrar's Office by the deadline date, please consult the List of Important Dates. Requests will be considered for the following reasons only: 1) the scheduled final examination slot conflicts with another exam; 2) three final exams within three consecutive exam time blocks; 3) the scheduled final exam slot conflicts with an exam at another institution; 4) extenuating circumstances. Travel is not considered a valid excuse for re-scheduling or missing a final exam.

#### **Electronic Etiquette**

Students are expected to treat their instructor, guest speakers, and fellow students with respect. It is disruptive to the learning goals of a course or seminar and disrespectful to fellow students and the instructor to engage in electronically-enabled activities unrelated to the class during a class session. Please turn off all cell phones and other electronic devices during class. Laptops should be used for class-related purposes only. Please do not use iPods, MP3 players, or headphones. Do not text, read, or send personal emails, go on Facebook or other social networks, search the internet, or play computer games during class. The professor has the right to disallow the student to use a laptop in future lectures and/or to ask a student to withdraw from the session if s/he does not comply with this policy. Repeat offenders will be directed to the Dean. If you are expecting communication due to an emergency, please speak with the professor before the class begins.

#### **Academic Policies**

It is the responsibility of all students to become familiar with and adhere to academic policies as stated in the Academic Calendar. Personal information, that is information about an individual that may be used to identify that individual, may be collected as a requirement as part of taking this class. Any information collected will only be used and disclosed for the purpose for which the collection was intended. For further information contact the Privacy Compliance Officer at privacy@ambrose.edu.

#### Extensions

Although extensions to coursework in the semester are at the discretion of the instructor, students may not turn in coursework for evaluation after the last day of the scheduled final examination period unless they have received permission for a "**Course Extension**" from the Registrar's Office. Requests for course extensions or alternative examination time must be submitted to the Registrar's Office by the deadline date, please consult the List of Important Dates. Course extensions are only granted for serious issues that arise "due to circumstances beyond the student's control".

#### **Appeal of Grade**

An appeal for change of grade on any course work must be made to the course instructor within one week of receiving notification of the grade. An appeal for change of final grade must be submitted to the Office of the Registrar in writing within 30 days of receiving notification of the final grade, providing the basis for appeal. A review fee of \$50.00 must accompany the appeal to review final grades. If the appeal is sustained, the fee will be refunded.

### Academic Integrity

We are committed to fostering personal integrity and will not overlook breaches of integrity such as plagiarism and cheating. Academic dishonesty is taken seriously at Ambrose University College as it undermines our academic standards and affects the integrity of each member of our learning community. Any attempt to obtain credit for academic work through fraudulent, deceptive, or dishonest means is academic dishonesty. Plagiarism involves presenting someone else's ideas, words, or work as one's own. Plagiarism is fraud and theft, but plagiarism can also occur by accident when a student fails or forgets to give credit to another person's ideas or words. Plagiarism and cheating can result in a failing grade for an assignment, for the course, or immediate dismissal from the university college. Students are expected to be familiar with the policies in the current Academic Calendar that deal with plagiarism, cheating, and the penalties and procedures for dealing with these matters. All cases of academic dishonesty are reported to the Academic Dean and become part of the student's permanent record.

Students are strongly advised to retain this syllabus for their records.

### Other