ZOOLOGY 528 – Independent Studies in Zoology

ZOOLOGY 528 is open to Zoology/Biological Sciences Majors who have completed 15 full-course equivalents

Zoology 528 will be conducted within the jurisdiction of the Program of Zoology. If projects are done in the laboratories of members of other Departments in the University, a Co-Supervisor from the Program of Zoology is required. In this case, both signatures will be required before approval for registration will be granted. Both the supervisor and co-supervisor must be kept apprised of the project during the term and must approve the proposal. **Both the supervisor and co-supervisor will also be involved in evaluation of the project and determination of the final grade.** Projects undertaken outside the Zoology program must have a component that aligns with the Zoology program.

A student is expected to carry out a research project over the period of the course with a minimal estimated time commitment of 8 hours per week and is required to meet with the Supervisor(s) on a periodic basis to discuss progress.

**GUIDELINES PERTAINING TO REGISTRATION IN ZOOLOGY 528**

1. Bring a printed copy of all pages of this form with you when meeting with a potential supervisor and Co-Supervisor, if necessary. As well, you **MUST** take an unofficial, current copy of their transcripts with you when meeting with a potential supervisor. The **second and third pages** of this form must be completed and signed by the Supervisor, Co-Supervisor if necessary, and the Course Coordinator. Forms that do not indicate an agreed-upon value and due date for all course components will not be approved by the department. The **last page** of this form must be completed and signed by the student and submitted to the Supervisor with the final report for the project.

2. Please return the completed form to BI 186 for approval to register NO LATER than 10 working days before the last date to change registration for the term, as indicated in the University Calendar. If approval is denied, you will be notified by e-mail. After the course is entered into the system, the student will be able to register for the course online. The student is not registered until the online registration has been completed.

3. Failure to complete the form correctly will delay your registration in this course.

4. If this is a sixth course, you must obtain consent of the Faculty - please obtain the appropriate form (Change of Registration) from the Registrar’s website. ([www.ucalgary.ca/registrar/forms_students/](http://www.ucalgary.ca/registrar/forms_students/))

5. Students must have completed the BioSci core with a current GPA of 2.75 or higher, and must have earned a minimum of a C- grade in BIOL 315.

6. Departmental approval will not be given to a 528 project course being carried out in the same lab/with the same supervisor as previous or simultaneous 528/530 project courses, unless there are extraordinary circumstances.

**GUIDELINES PERTAINING TO THE CONDUCT OF ZOOLOGY 528**

1. A **Research Proposal** must be submitted by the student to the Supervisor(s) within the first month of the project. Students producing unsatisfactory reports will be required to either rewrite the proposal or withdraw from the course. A student cannot continue in the course until a satisfactory proposal is turned in.

2. The **Supervisor's Assessment of Term Work** will be based on the student's application of techniques, capacity to identify and solve problems, and comments and discussion of results as term work is progressing.

3. The grade standing at the end of the first term will be based minimally on the **Research Proposal** and the **Supervisor's Assessment** of the first term work. Supervisors may request more components to be completed by the end of the first term.

4. A **Final Written Report** in the format of a research journal paper must be submitted by the student to the Supervisor(s) no later than 5 days after the last day of classes (NOTE: some Supervisors may impose an earlier submission deadline). In the case of co-supervised projects, this report will be assessed by both the Program and Out-of-Department Supervisors, and a grade will be awarded as a result of consultation between these two individuals. The final grade, which must be assigned no later than 11 days after the last day of classes, will be submitted to the Department of Biological Sciences by the Program faculty member.

5. There will be a formal seminar during the last two weeks of classes. Each student will be allotted a 15- to 20-minute presentation time, followed by a discussion. The oral presentation will be graded on the quality of the presentation, not on the quality of the data. Both the supervisor and the co-supervisor are expected to attend the seminar.

6. After the end of the final exam period, an "F" will be assigned as a mark until all assignments have been received.
This is to confirm that I/we am/are willing to supervise __________________________, I.D. __________________

in ZOOLOGY 528. ___ for the following terms/academic year ________

The title for the course will be: (Must not exceed 26 characters, including spaces)

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and it will count towards a major in Zoology / Biological Sciences.

The following component values have been agreed upon by the student and supervisor(s):

<table>
<thead>
<tr>
<th>Course component</th>
<th>Due date (if applicable)</th>
<th>Suggested value range (%)</th>
<th>Agreed value in % (Total = 100%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proposal</td>
<td>Within first month</td>
<td>10-25</td>
<td></td>
</tr>
<tr>
<td>Progress Report</td>
<td>Halfway through course</td>
<td>10-20</td>
<td></td>
</tr>
<tr>
<td>Research component (in 3 subcomponents, if desired)</td>
<td>N/A</td>
<td>30-55</td>
<td></td>
</tr>
<tr>
<td>3a</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3b</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>3c</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final Report</td>
<td>Last day of classes</td>
<td>15-35</td>
<td></td>
</tr>
<tr>
<td>Oral presentation</td>
<td>Last or second-last week of classes</td>
<td>10-20</td>
<td></td>
</tr>
</tbody>
</table>

Letter Grade Conversion
A+ ≥ 92, A ≥ 85, A- ≥ 80, B+ ≥ 77, B ≥ 73, B- ≥ 70, C+ ≥ 67, C ≥ 64, C- ≥ 60, D+ ≥ 55, D ≥ 50, F < 50

Student name (please print) ____________________________________________________________________________

Phone __________________________________________________________________________________________

e-mail address __________________________________________________________________________________

Address _________________________________________________________________________________________

Student signature ________________________________________________________________________________

Date __________________________________________________________________________________________

Zoology Program Supervisor signature (please print name as well) ____________________________________________________________________________________

Date __________________________________________________________________________________________

Out-of-Department Supervisor signature (if relevant) (please print name as well) __________________________________________________________________________

Date __________________________________________________________________________________________

(Please provide e-mail, address and phone number if out-of-Department)

Signing this page indicates that both supervisors approve of the proposed project and have agreed upon the value and due dates for all course components.

This information is collected under the authority of the Freedom of Information and Protection of Privacy Act and the Universities Act. It is required to document registration in the course and will form part of the student record. If you have any questions about the collection or use of this information, please contact BI 186.
RETENTION OF DATA AND AUTHORSHIP AGREEMENT

The following constitutes an agreement between:

Colleague or Student: ________________________________

Laboratory Supervisor: ______________________________

This statement is to attest that, during the period of your research program in my laboratory, all original materials and data will be kept in a form that can be recovered and re-evaluated in the laboratory. All data and notebooks have to remain in the lab as required for publication purposes and pending federal and university regulations; failure to do so will result in a failing grade in the course. When your project is complete, you must also sign and submit the checklist on the next page to your Supervisor; failure to do so will result in a failing grade in the course.

Any person who has substantially contributed academically to a study being reported in a publication or presentation, either in the conception, design or execution of any experimental work, interpretation of data or drafting the article, should be included as an author or given other appropriate acknowledgement. It is understood that the results that you will produce in the laboratory may lead to primary publication(s) that may be co-authored by both of us following recognized journal rules. In any such case, neither of us shall submit any of this work for primary publication without the other, except by mutual consent.

In the case of such a joint authorship, it is your responsibility to provide up-to-date contact information to me after you leave the laboratory so that you can be contacted to provide input into manuscript preparation and give permission to have your name included as a co-author on the manuscript. Failure to update me with your contact information could jeopardize your co-authorship on future publications. Thus, should you not provide me with up-to-date contact information or should you refuse to be added as a co-author, I can submit work for primary publication without you as co-author.

I reserve the right to utilize any of these data for purposes of teaching, reviews, textbooks or grant applications. If I utilize any of your work for these purposes, I will acknowledge it by joint authorship, reference to your abstract, paper or thesis, or (if yet unpublished) by an appropriate statement such as ‘your name, unpublished observations’.

If you independently provide novel contributions to the work that results in a patent, your rights of partial ownership will be governed by the current rules for Intellectual Property as outlined on the webpage of the Office of Vice President Research (http://www.ucalgary.ca/research/office-vice-president-research/compliance)

Signatures:

____________________________________  ______________________
Supervisor                                              Date

I agree with this statement:

____________________________________  ______________________
Colleague or Student                                  Date

This information is collected under the authority of the Freedom of Information and Protection of Privacy Act and the Universities Act. It is required to document the agreement. The information will form part of the student record. If you have any questions about the collection or use of this information, please contact BI 186.
INDEPENDENT PROJECT COMPLETION CHECKLIST

☐ The student (_______________________________) has cleaned up all of her/his laboratory experiments and instruments to the satisfaction of the supervisor

☐ The supervisor has been made aware of the presence of any hazardous materials and chemicals that the student has used, and arrangements have been made for proper storage or removal.

☐ Biological materials generated during the course of the work have been disposed of, or properly preserved and stored with adequate documentation.

☐ The student certifies that s/he has made mutually acceptable arrangements with the supervisor for the storage of all data, materials and documents generated during the project.

☐ The student has provided up-to-date contact information and has submitted a final report to the Supervisor or Course Coordinator (or satisfactory arrangements have been made for the submission of this report). Please indicate these arrangements and initial (____): __________________________________________

☐ The student has returned all key(s) to the laboratory and any other work spaces to the Biological Sciences Office

   Confirmation by Biological Sciences office staff (initial): __________

☐ When the student leaves the laboratory, all personal effects will have been removed and her/his laboratory space will have been left in a satisfactory condition. If the student has arranged to remain in the laboratory subsequent to the completion of this project, all of the criteria stated above must be fulfilled to the supervisor’s satisfaction before the student leaves the laboratory.

Signatures:

_________________________________________  _________________________
Student  Date

_________________________________________  _________________________
Supervisor  Date

_________________________________________  _________________________
Co-Supervisor (if relevant)  Date

The Supervisor is responsible for submitted this completed and signed form to David Bininda in BI 186 when the student’s final grade is submitted. Grades for independent project courses will not be approved without submission of this form.