BIOCHEMISTRY 528
BIOCHEMISTRY 528 is open to Biochemistry/Biological Science Majors who have completed 90 units

Students considering Biochemistry 528 should obtain the information brochure in April preceding the September commencement of the course. Research project information will be available from the Course Coordinator or the Biological Sciences Office (BI 186). The Course Coordinator will approve the final student/faculty member match-up and the research project, and announce the decisions to faculty and students.

Biochemistry 528 is offered by the Biochemistry Program; however, the Supervisor may be associated with another program within the Department (e.g. CMMB) or in other departments in the Faculties of Science and Medicine. If the Supervisor is outside the Department, then co-supervision by a professor in Biochemistry is required; in this case, 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 Biochemistry program must involve biochemical and molecular methods, *i.e.*, the project must have a component that aligns with the Biochemistry program. The Co-Supervisor and Course Coordinator can help evaluate the suitability as a biochemistry project. All arrangements must be approved by the Course Coordinator.

**GUIDELINES PERTAINING TO REGISTRATION IN BIOCHEMISTRY 528**

1. To enrol in Bcem 528, students must have completed the Biological Sciences core courses required for their program with a GPA of 2.75 or higher, have completed 90 units (15 FCE), and be enrolled in the Biochemistry or Biological Sciences program.

2. Students must take a printed copy of all pages of this form with them when meeting with a potential Supervisor and Co-Supervisor, if necessary. As well, students MUST take an unofficial, current copy of their transcripts with them when meeting with a potential Supervisor. The **second and third page** 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.

3. 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, the student 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.

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

5. If this is a sixth course, the student 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/))

6. **Departmental approval will not be given to a 528 or 530 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 BIOCHEMISTRY 528**

1. A student is expected to carry out a research project over the period of the course with a minimal estimated time commitment of 8–10 hours per week, and is required to meet with the Supervisor(s) on a periodic basis to discuss progress.

2. A final written report submitted by the student to the Course Coordinator on the last day of lectures (as indicated in the Calendar). This will be graded by two faculty members, other than the Supervisor(s).

3. The Supervisor(s) will submit, to the Course Coordinator, a half-page mid-session evaluation and a final written assessment by the end of term. The student should submit a five-page research proposal and progress report halfway through the course.

4. There will be a formal one-day seminar session during the last or second-last week of classes. An advance notice of the time and location of the seminar, indicating the names of students, their time of presentation and the title of their seminar, will be prepared by the Course Coordinator. At the seminar, students will be introduced and the seminar title announced. Each student will be allotted a 15-minute presentation time plus a 5-minute question period, which will be strictly enforced. Supervisors are expected to attend these seminars and participate in grading the students.

5. The final grade will be assigned by the Course Coordinator.
BIOCHEMISTRY 528 - Independent Studies in Biochemistry

This is to confirm that I/we am/are willing to supervise

________________________, I.D. ____________________

in BIOCHEMISTRY 528. ________ for the following terms/year _____________

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

__________________________

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

<table>
<thead>
<tr>
<th>Supervisor's Assessment of Term Work</th>
<th>45%</th>
<th>Due at end of term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Proposal/Progress Report</td>
<td>5%</td>
<td>Due halfway through the course</td>
</tr>
<tr>
<td>Final Written Report</td>
<td>25%</td>
<td>Due last day of classes</td>
</tr>
<tr>
<td>Oral Presentation</td>
<td>25%</td>
<td>Last or second-last week of classes</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

______________________________________________

Address

______________________________________________

Student signature                             Date

______________________________________________

Program Supervisor / Co-Supervisor signature (please print name as well) Date

______________________________________________

Out-of-Department Supervisor / Co-Supervisor signature (if relevant) Date
(please print name as well) or Course Coordinator

(Please provide e-mail & 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.

Course Coordinator                             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 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.

Departmental Approval (BI 186)                      Date

Approved  Forwarded to TT  Registered  DTTS

PLEASE TURN OVER
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.