FAQs about independent project courses (507/509/528/530 courses) in Biological Sciences

What is the difference between 507s, 528s & 530s? What are the requirements for each course?
Each of the programs offered by Biological Sciences (BCEM, BISI, CMBI, ECOL, PLBI and ZOOL) offers one-term (507s) and two-term (528s and 530s) independent research courses.

A 507 is a one-term research project that may involve lab or field research but can often be more of a paper-based project (e.g., writing a review paper on a topic of interest). Students must have completed 54 units to do a 507. Students can do more than one 507, with a maximum of 6 units in 507s can be used towards their major field. Students can do more than 6 units in 507s, but any units above these 6 will not count towards their major field (we do make exceptions to this under exceptional circumstances). Most programs do not allow students to do a second project with the exact same supervisor(s), so students who want to do more than one 507 should find a different supervisor; for students in the Biological Sciences program, there are many benefits to choosing a supervisor from a different program.

528s and 530s are two-term independent research courses. The two categories of courses are essentially the same thing but only Honours students can enroll in a 530 course. For both 528 & 530 courses, students must have completed at least 72 units, so these are intended to be done in the student’s final year. If a student completes a 528 course and later transfers into an Honours program (or applies to graduate with Honours, we will accept the 528 in lieu of a 530).

For all three project courses, students must also have a minimum GPA of 2.75 over their last 30 units. This requirement needs to be checked by the USC advisors when the student submits their project form. The deadline for students to submit the completed form to the USC is on or shortly after the first day of classes.

When would a student do a BIOL 507 or 528 rather than a BCEM, CMMB, ECOL, PLBI or ZOOL 507 or 528?
A BIOL 507 or 528 would be appropriate if a student’s project is on a topic that does not clearly fall within a single specialized program or where there is a split in content that does not fit clearly within a single specialized program. Students in the Biological Sciences program can complete 507s or 528s offered by a specialized program (e.g., BCEM, CMMB, etc.) if that designation is a better fit for their topic. However, students in the Honours BiolSci program must enroll in BIOL 530.

What is the difference between BIOL 507 and BIOL 509?
BIOL 507, like other 507 courses, is a one-term research project that involves lab or field research. In contrast, BIOL 509 gives students an opportunity to carry out advanced work in areas not covered in regular courses or to pursue specific topics at greater depth, via reading projects, seminars, lectures, term papers and other aspects of training in theory or research methodology. BIOL 509 projects can also focus on pedagogical aspects of biology. The course involves three instructional hours per week and students are expected to put in additional work outside of those contact hours; students should anticipate about 9 hours of work per week in this course.
How do students find a supervisor?
Students often get interested in doing an independent project with someone because of taking a class from that person. Students can look at the research interests of faculty members in the department at: https://science.ucalgary.ca/biological-sciences/research/research-areas

Students can also talk with the coordinators for each program’s independent projects to see which lab in that program would be a good fit for their interests. For 2023-23, the course coordinators for the independent projects are:

BCEM: Elmar Prenner
BIOL: Kyla Flanagan
CMMB: Constance Finney
ECOL: Sean Rogers
PLBI: Doug Muench
ZOOL: Jessica Theodor (Fall 2022) and Hamid Habibi (Winter 2023)

Students who are interested in doing an independent project course should email potential supervisors to make an appointment to discuss working in that person’s lab; it is best to contact potential supervisors in the Fall term or early in the Winter term in the school year prior to the year that the student wishes to conduct an independent research course, as spaces do fill up by the end of the Winter term for many labs. It is important for students to do their homework about what research the potential supervisor works on (e.g., by reading the information at the research areas link above) and be able to explain why they want to work with that particular supervisor.

What do students need to take with them when they meet with a potential supervisor? Do they need to have decided on a topic for their project before the meeting?

Students sometimes think that they need to have a fully developed project in mind before they meet with a supervisor, but this is not the case! Having an interest in the research done by that supervisor or in the topics taught by that supervisor is a good starting point for asking about working in that person’s lab. The supervisor will usually have some projects in mind that are suitable for undergraduates, although they are also usually open to hearing about topics of particular interest to the student. It is important for students to have done some reading about the potential supervisor’s research so that the student can explain why they want to work with that supervisor.

Before meeting with a potential supervisor, information sheets containing instructions particular to each independent research course should be reviewed – these are available at the following link:

https://science.ucalgary.ca/usc-independent-research-course-application

When students meet with a potential supervisor, they should bring an unofficial transcript with them (or have it handy if the meeting is online) so that the supervisor can see if the student will meet the GPA requirement (although this is formally checked at the time the form is submitted)
and so that the supervisor will have an idea of the student’s background. The student and supervisor should also be aware of the important information particular to each course, as both students and supervisors need to come to an agreed upon grading scheme that must be used when filling in the webform application for an independent research course (see section below).

**How do students get enrolled in the course?**

If the supervisor agrees to supervise the project, the next step is that the student begins the enrollment process via a webform application, accessed via the following link:

https://science.ucalgary.ca/biological-sciences/current-students/undergraduate/procedures-policies-and-forms

This link also has some information that is particular to the BCEM independent research courses, and an ‘Independent Project Agreement and Checklist Form’ that students and supervisors should also fill in.

The webform can also be accessed at the link below (same link as given in previous section):

https://science.ucalgary.ca/usc-independent-research-course-application

The student completes the appropriate form based on the grading scheme agreed upon by the student and supervisor. Note that the student is also expected to enter a brief project title and brief description of the project. Once submitted, the form is checked by a USC advisor to ensure that the student meets the requirements, then the form will be sent to the supervisor and the course coordinator for approval. Once approved, then the student is enrolled in the appropriate course by the USC.

**Can a student have a supervisor who is not in the Biological Sciences Department (e.g., someone in Medicine or Vet Med)?**

A faculty member outside of Biological Sciences can supervise an independent project course but the student must also have a co-supervisor from the Biological Sciences department. Students should find a co-supervisor sooner rather than later because the project must have a component that aligns with the program to which their co-supervisor belongs (e.g., if the supervisor is a member of the BCEM program, the project must have a component that aligns with that program). Sometimes projects done in other laboratories will be too narrowly focused and it becomes very challenging to find a co-supervisor if the project is already completely defined before the student looks for a co-supervisor.

Both the supervisor and co-supervisor must sign the form before the program course coordinator will approve the form. Both the supervisor and co-supervisor must be kept apprised of the project during the term and both be involved in evaluation of the project and determination of the final grade.
Is it true that students doing a CMMB 530 project also have to enroll in a CMMB 507 course at the same time?
Yes, students in CMMB 530 also enroll in CMMB 507.95 during the Winter term; the CMMB program has this extra 507 requirement to ensure that students have sufficient time in their schedule to complete the work required for their Honours project. The other programs do not have this requirement for their 530 courses.