The Biology Department encourages students to participate in investigative research. For students who participate in a Biology 390 Research Course for a full course credit, the Department will consider granting exemption from the Investigations course requirement. Requests for exemption, however, must satisfy the following criteria in order to be approved:

1. The student will present a seminar, paper or poster based on the research to the Biology Department.
2. The student has satisfied the guidelines prescribed for Biology 390 courses that are taken in a laboratory or field-based research format.
3. Specific Department Guidelines for 390 courses are to be followed. These guidelines are attached.
4. Prior approval for exemption is sought through the completion of this form.

To be eligible for exemption in this manner, normally a student must have completed at least four courses in Biology.

An exemption from the investigations course requirement does not reduce the numbers of courses required for the major program of concentration. An exemption only allows the student another elective among the 300-level courses.

Attach the Biology 390 proposal to this application form.
Independent Study Projects

Calvin College provides an opportunity for students to do independent research or reading when they have demonstrated their competence in the academic discipline(s) involved and have shown an ability to study on their own initiative. An independent study must include substantial research and/or reading in an area not covered in a regular course offering of the Biology Department.

The Biology 390 course is an opportunity for a student to conduct an independent research project under the guidance of a Biology Department faculty member. Projects for such study must be defined in advance of registration and must be approved by the instructor directing the study, the departmental chairperson, and the Registrar. Each course must be completed within the term. Because independent study projects require considerable time of the instructor as well as the student, an instructor is not obligated to approve an independent study and is expected to limit the number of students accepted.

Eligibility for an Independent Study Project

To be eligible for an independent study, a student must have completed four courses in biology and must have an overall GPA of at least 3.3 in those courses. An independent study shall carry credit of either 0.5 or 1.0 course units. No more than one course unit of such study may be applied toward a biology major and no more that two course units of such study may be applied toward graduation requirements.

Expectations of Student Participating in Independent Study

To maximize the benefit of an independent study project to a student, the Biology Department requires that the following items be included in a course:

1. **Preparation.** For a project to have significance, it must be well-conceived and tied to the existing knowledge in the field. To assure that a project has such a basis, the student is required to complete:

   a. a bibliography (a listing of a body of literature appropriate to the project). As an option, a student may be required to complete an annotated bibliography, i.e., a bibliography accompanied by a brief paragraph for each entry indicating the significance of the item. A bibliography may also include a report of the sources searched. The bibliography may be submitted at the end of the semester.

   b. a project proposal. The proposal should be prepared in rough form for the initial course proposal, but should be prepared in detail at the beginning of the semester in consultation with the supervising faculty member and the literature. A rough project proposal must be completed before the project is undertaken.