

Biological and Chemical Sciences Internship Guidelines
BCS 290/390

Prerequisites BCS 290: Bio151L and Biol152L, or Chem107L and Chem108L, or POI

Prerequisites BCS 390: Five courses in biology and/or chemistry, or POI

Graded: S/U

Semester Hours: 2-4

Offered: Fall, January, Spring, and Summer

Guidelines: Students wishing to participate in a BCS-sponsored internship must complete the following **steps** and **requirements**.

Steps:

Step 1. Before starting the internship, students must obtain the necessary internship paperwork - Internship Agreement Form and Liability Waiver - from Career Services *and* meet with the BCS faculty sponsor (ask Career Services or the BCS major chair who the current coordinator is). The student should also look at the objectives that all internship experiences **MUST** fulfill to receive credit. The objectives for a BCS internship are given at the end of this document.

Step 2. Meet with the BCS faculty sponsor to discuss the internship plan and obtain his/her sign-off. BOTH sides of the internship form must be filled out (by the student and the off-site sponsor) completely before the BCS faculty sponsor can sign the form. The faculty sponsor will also go over the following set of requirements with the student and assign a due date for the required materials.

Step 3. Submit all required forms to Career Services *prior* to starting the internship.

Step 4. Complete the internship and requirements as agreed. Get as much out of the internship experience as you can and enjoy it!

Step 5. After the internship is completed, turn in the materials to the BCS faculty sponsor by the date specified. A date and time will be established for the BCS poster session.

Step 6. Obtain and submit the internship feedback forms to the BCS faculty sponsor and to Career Services (these are different forms).

Requirements: (1) Hours Worked; (2) Journal/Portfolio; (3) Thank You Note; (4) Research/Reflection Paper; (5) Poster Presentation (6) Reflection Meeting

1. **Hours Worked:** 40 on-site hours are required per semester hour of internship. Thus, a 2 semester hour internship requires 80 hours; a 3 semester hour internship requires 120 hours; and a 4 semester hour internship requires 160 hours. Your supervisor for the internship will verify the number of hours worked on their evaluation form; you should also keep track of hours in your journal.
2. **Journal/Portfolio:** Notebook, composition book, or binder; handwritten or typed, as you prefer. Written requirements are:
 - a. List your specific objectives for the internship, both personal and professional, right in the beginning. You are highly encouraged to work with your faculty sponsor before the internship or with your on-site sponsor on this statement, which may also be part of the internship agreement form. You must share this with the BCS faculty sponsor before starting your internship.
 - b. Each working day, jot down the date/time/hours worked, describe what you did during that period (assignments, tasks, etc.) and any impressions, thoughts, etc. that you had. These can be related to your thoughts on career or occupation, to personal development, or a specific area of science that you would like to examine further. A paragraph length is adequate.
 - c. At the mid-point of the internship, revisit your goals and reflect on how well you are meeting them. If they are not being met, develop a plan to modify your goals or approach in order to achieve a successful experience. Seek advice or guidance from the BCS faculty sponsor or internship supervisor as needed.
 - d. If you are assigned background reading, put notes on them in your journal and put the readings in your portfolio. If you give a presentation, make note of it and include a hard copy of the presentation in your journal (including final presentations, group meetings, etc).
 - e. At the end of the internship, write a paragraph reflecting on how your goals were fulfilled (or not) and what you would do the same or differently if you could have the experience over again.
 - f. The contents of the remainder of your portfolio will depend on the nature of your internship. Choose materials that best illustrate what you did on your internship. Photos, brochures, and other artifacts or memorabilia from the experience may be included. Include samples of your work, e.g., reports, letters, plans, research spread sheets etc. Do not include material of a confidential nature.
3. **Thank You Note.** Prepare and send a thank you note to your on-site sponsor and/or supervisor. Photocopy your note and include a copy in your portfolio.
4. **Research/Reflection Paper.** Write a 5-page paper (typed, double spaced, numbered, and stapled) on the experience. You must submit both a paper **and** electronic copy of the paper to the BCS faculty sponsor. This paper should include your name, the date and location of the internship, your sponsor's name and address, and how you located the internship. The paper must do the following:
 - a. Demonstrate that you fulfilled the individual and professional objectives of the internship outlined before beginning.
 - b. Tie the internship experience to coursework in the biological and chemical sciences (ie what did you learn in the classroom that you could apply to the internship?).
 - c. Tie the experience to a liberal arts education (ie what about your liberal arts education prepared you for this internship?).
 - d. Describe any new perspectives that were gained as well as any personal growth in the area of civic/social responsibility. The internship introduces you to a new 'culture' with different rules and people – how did you respond? What did you learn about that culture?
 - e. Provide a reflection on how the experience has helped prepare you for a career in the biological or chemical sciences or caused you to contemplate a future career or academic path.

- f. Describe the work you did. This is the 'research' component. At least two scholarly sources should be cited within the text; a separate Reference page with the sources properly cited in APA format should be included with the paper, but does not count toward the five page limit. (Note that this will not apply to all internships.)
5. **Poster Presentation** - A poster is a common and convenient way to present the results of a scientific experiment or an account of an off-campus experience; it combines some text and illustration with the opportunity for questions and answers in a very concise format. Therefore, expect to select from your internship experiences only one or two particularly interesting experiences or observations and focus your poster on what you learned from these. The poster should include:
- a. A **title strip including the title of your internship, your name, and your sponsor's name and location.** (This goes at the top of the poster.) The title should be descriptive and catchy, but concise.
 - b. A brief description of your internship (an abstract or summary).
 - c. A statement of your special topic(s), or focus of your internship. What were you supposed to do? What were you looking at? What were the objectives for your particular internship?
 - d. An explanation of your activities, observations and/or findings on your topic(s) in any combination of text and illustration which is appropriate for your topic(s). How did you do things? What did you find out?
 - e. A brief conclusion to recap what you did/learned.

The poster for a 290-level internship should convey content equivalent of a three-page paper. The poster for a 390-level internship should convey the content equivalent to a five-page paper. This doesn't mean a paper stapled to posterboard; instead, make your abstract, background, results, conclusions and illustration captions terse and informative to encompass the appropriate content. Your poster should be organized, accurate and easy to read. It should also be proof-read! You can use 8.5x11" sheets of paper attached to posterboard to make your poster. Be sure to have your **name** on the poster! Although you can use the plotter to print a poster, you must ask to use it **at least** one week in advance, you will not be able to print if you don't give us appropriate notice.

In order to "present" the poster at the poster session, you stand next to it, direct the viewer's attention through it, and answer questions which viewers ask. The session uses a Science Colloquium time slot, and will be advertised as a science colloquium, so you will also want to circulate and view other posters. Please feel free to consult your faculty sponsor for help with poster subject or design.

Objectives that BCS Internships must meet:

1. Apply course based learning in the liberal arts to situations outside the classroom.
2. Gain new perspectives and appreciation of difference and diversity, and improve understanding of others and enhance the ability to interact with them.
3. Engage in on-going critical reflection of the experience.
4. Consider and explore potential post-graduate pursuits.
5. Develop individual objectives, which are realistic, intentional and measurable, for the specific learning experience.