

**College of Wooster**  
**Senior Independent Study**  
**Chemistry 452, Spring 2013**

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**Goals**

I want you to invigorate your passion for learning.  
I want you to stoke your curiosity about the world around you.  
I want you to engage fully and enjoy yourself while doing it.

**General expectation**

“A course is defined as a unit of study which occupies one-fourth of a student’s time each semester, or approximately twelve hours per week.”

**Prioritizing and Steady Progress**

As you consider your goals and plan your strategy, keep in mind that Sr. I.S. encompasses the 16 weeks of fall semester and approximately 6 weeks of spring semester. So it is important to get an early start in the fall and to work consistently. On the average, I recommend 15 hours per week divided among library, lab work, seminars, and conferences. You will be (1) planning experiments, (2) conducting experiments, (3) maintaining your notebook, (4) regularly drafting your Experimental and Results/Discussion sections, (5) reading the literature, (6) planning for life after Wooster. It is imperative that you balance the urgent tasks of every day life with the important goal of completing Sr. I.S.

**Weekly Conferences**

We will meet weekly to review your experimental plans, results, writing progress, and career planning. I recommend that you start a project notebook (either three-ring or a bound composition book) that you can use to manage the many facets of your senior project. You should come to the meeting with a prioritized plan for how you want to use our time and an organized summary of what you have accomplished in the week. You may want us to review your experimental plans, notebook, and relevant data analysis. You may find that your written summaries may also serve as thesis section drafts. During the conference you should take notes and generate a prioritized plan for the upcoming week. Periodically we may have group meetings at which you will present your research. This will include important background and progress to date.

**Planning Experiments**

I can be of most assistance if you share written experimental plans with me so that I can ask questions and make suggestions. You need to prepare a timeline and anticipate items that you may need to order and training that you may need to receive.

**Data analysis**

It is best that you prepare an initial analysis of your data to organize your thoughts. We can review your work to be sure that you are accurately interpreting and archiving your work. It is essential that you archive your data and conduct data analysis in a timely manner.

**Thesis drafting**

In the spring, I will review one draft of each section prior to submission of your final draft. It is important that the drafts that you give represent your best work so that we can both use our time most effectively.

**Poster Presentation**

You will present a poster on your project as described in the *Department of Chemistry Handbook for Senior Independent Study*. If you want feedback on your poster, please provide me with a copy *at least one week* prior to your oral.

**Oral Defense**

In preparing for your oral defense I recommend reviewing notes and exams from all of the chemistry courses you have taken. Nearly all oral exams include the fundamental topics from introductory chemistry as well as broad suggestions for the future of the project. We will schedule your oral defense with your second reader for sometime in April. You will start the defense with a brief with a brief poster presentation and we will explore questions related to your project for about an hour.

**Grading**

The final grade for 452 is Honors (H), Good (G), Satisfactory (S). Your grade is based on quality of the laboratory work, notebooks, drafting process, final written thesis, oral exam, senior seminar, and poster session, adherence to the timeline. The most significant criterion in my mind is “intellectual ownership” of the project. Refer to the *Department of Chemistry Handbook for Sr I.S.* for a detailed list of criteria. You will receive written and oral feedback on your performance throughout the year and are welcome to address concerns about your progress at any time.

## Schedule Overview for Senior Independent Study

**General:** Attend Tues/Thurs seminars (11:00 – 11:50 AM, Severance 009)

### Spring Semester 2013

<b><u>Week 1</u></b>	Resume full-time laboratory work Revisions of thesis sections Review career plans
<b><u>Week 2</u></b>	Continue full-time laboratory work, continue drafting
<b><u>Week 3</u></b>	Continue full-time laboratory work, continue drafting compiling data
<b><u>Week 4</u></b>	Continue full-time laboratory work, continue drafting compiling data
<b><u>Week 5</u></b>	Complete lab work to focus on writing
<b><u>Week 6</u></b>	Focus on writing
<b><u>Week 7</u></b>	Final thesis due by <b>4:00 PM Friday February 22</b> I will provide feedback within one week of receiving your final draft Begin cleaning up your lab space
<b><u>Week 8</u></b>	<b>Spring Break begins Friday March 8 (4:00pm)</b> Complete thesis revisions
<b><u>Week 9</u></b>	Senior Thesis Due 5:00 p.m. <b>Monday March 25</b> Study for DUCK and orals Begin drafting poster, must be completed prior to orals Schedule orals, must be completed before poster session
<b><u>Week 10</u></b>	Archive any relevant samples Clean up IS research space and check out Submit notebook and finalized data archive notebook to Professor Collins Study for DUCK and orals Finish poster
<b><u>Week 11</u></b>	Prepare for orals
<b><u>Week 12</u></b>	Complete thesis revisions
<b><u>Week 13</u></b>	Research Symposium—Celebrate <b>Friday April 26, 2013</b>
<b><u>Week 14</u></b>	Get thesis copies bound (one for dept, one for me, at least one for you) Submit electronic copy of thesis Return keys to physical plant Receive Sr. IS grade usually by <b>Friday</b>