



UNIVERSITY OF NORTHERN COLORADO

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## Extended Campus

College of Natural & Health Sciences  
Department of Chemistry & Biochemistry

CHEM 395-627 – Special Topics in Chemistry: Beer and Brewing in England

Faculty-Led Study Abroad  
Summer 2019

**Course Dates:** July 16-17 (9am-11am), July 18-29 (England), July 31 (9am-11am)

**Instructors:**

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**Credit Hours:** 3 (lecture, independent and directed study, and research)

**Prerequisites:** 18 Years old

**Required Texts:** none - handouts will be made available on Canvas

**Course Objectives:**

Explore how beer and brewing are integrated in England through lectures, festivals, and visits to historical and modern sites in brewing. On our journey, we'll visit traditional pubs, breweries both big and small, and farms that support the industry. The differences and similarities to beer and brewing in the US will be highlighted. Emphasis on the application of what we uncover to key issues in brewing will be made. The course is cross-listed between Chemistry, History, and Recreation, Tourism, and Hospitality to achieve the goals of visiting, exploring, and studying beer and brewing in England. Interaction between students in each of these programs will enhance the study abroad.

**Course Learning Objectives:**

Upon completion of the course, students will be able to:

- a. describe beer and brewing in England and its differences to that practiced in the US,
- b. assess beer style profiles as they pertain to English styles,
- c. evaluate yeast and hop varieties in use in England and compare to those in the US.

**Course Description:**

Special topic course on Beer and Brewing and how it is applied in England.

### Extended Description:

This course is NOT an introduction to beer, beer brewing or to brewing science. Participating in this course assumes that you are somewhat familiar with the basics of brewing (via either classes such as CHEM 370 or personal experiences) and that you have been exposed to many different styles of beer. This course will explore the history of brewing in England and cover the applications of brewing science to solving problems in brewing in England (from a recreational, political, economic, and societal perspective). We'll take in-depth tours of breweries, maltings, and etc. in England to examine first-hand the processes for brewing and explore how they differ from those used in the US (including exploring some of the laws and regulations around brewing that result in different societal impacts). We'll visit numerous public houses and microbreweries to uncover how the beer industry is integrated into English society.

If this is your first course in brewing science, we will spend some time prior to the trip to England to provide an overview of the processes involved.

### A word about decorum:

This course is NOT a course about drinking beer. While you will be sampling beers during much of the trip, the purpose of the course is not to drink beer (you can do that without leaving Greeley). The science, practice of running/operating breweries and pubs, historical impact, and application to a set of beer styles are the goals of the course.

Your decorum during and outside of this course (including the ENTIRE time we will be in England) is ESSENTIAL to your completion of the course with a satisfactory grade. Those who do not follow this rule may find their time in England cut short. In other words, lack of decorum will not be tolerated. This will be explained further prior to leaving the US.

### Schedule:

Date	Event	What is Due
16-Jul	Introduction to course, Explanation of Thesis, Planning for London	Nothing
17-Jul	Brainstorming and Thesis Abstract, More planning and protocols in London	Decorum Agreement
18-Jul	Thesis topic / hypothesis due, Leave for London	Abstract, Legal Documents, Passport
20 to 28-Jul	England trips, lectures, festival	Thesis updates throughout the week Morning and Evening Lectures on Key Topics related to the Trips
29-Jul	Return to DIA	
31-Jul	Thesis Construction and Assistance	Sections of Thesis
6-Aug	Thesis first draft is due	Thesis draft
13-Aug	Thesis FINAL	Final draft

### Grading - Course Requirements and Method of Evaluation

This course will be graded using the standard 10% scale used to assign a letter grade (>90% = A; 80-90% = B; 70-80% = C; etc.) based on a thesis paper that you construct and write before, during, and after the trip to England. Based on Department of Chemistry and Biochemistry rules, no "+" or "-" will be awarded. Point breakout is indicated below:

Exam	Points	Number	Total
Background	10	1	10pts
Discussion	20	1	20pts
Conclusions	10	1	10pts

Decorum	10	1	10pts
			50pts

The breakdown of the points reflects the outcome of the course - a thesis on the state of brewing science in England. The details of the paper will be discussed prior to leaving for the study abroad (and a rubric for grading will be distributed). You will develop, explore, and have your thesis statement/abstract approved prior to the trip. No thesis will be accepted if the abstract isn't approved. You will conduct some basic research on the background prior to leaving for England. In England, you will explore your thesis via visitations, discussions, tours, and other methods. You will then construct the discussion of the paper in England and write the conclusion and summary of the paper upon returning to the US. The paper will be at a minimum 12+ pages, single sided, 12pt font, 1" margins, double-spaced. Figures, photos, references, and title page are NOT counted in the final page count.

The thesis statement will form the introduction to your paper. This statement should be further expanded to provide an introduction to the problem/issue/topic that you will be working upon. It will draw the reader in and make them want to continue reading. It will be short and concise and likely only take 1/3 to a full page to write. This will not be graded (it must be approved before you leave for London).

The Background grade will be based on the thoroughness of discussions of background material needed to understand the thesis and discussion of your paper. References throughout the paper must be adequately cited (internet references will NOT be counted toward the minimum number). The minimum number of references is 10 in order to qualify for grading the background portion of the paper – Note: this is just the minimum in order to get this section graded, this is not the number of references that will ensure a particular grade.

The Discussion (the longest portion of the paper) should include an introduction of the thesis and a thorough explanation of the entire thesis statement. Pictures, figures, graphs, tables, and other visual aids may be used to assist in the discussion (hint: take pictures, quotes, etc on the trip to England).

Conclusions should be straightforward, follow easily from the discussion, be concise, and as always draw conclusions about the thesis statement. Typically, these will be one-two pages in length, but may take longer to thoroughly arrive at the conclusion.

Decorum, mentioned above, is a catch-all category that includes attendance, punctuality for any scheduled meeting, participation in discussions, following curfew rules, etc. especially while on the trip to England.

### **Due Dates:**

Your thesis (topic area and hypothesis/abstract) is due at the start of the first day of the trip to England. This is ONLY to confirm that your paper isn't too narrow, or too broad, to cover during the allotted time. You should confirm the thesis with the instructor as soon as possible so you can start on the background section.

A first-draft of your completed paper is due electronically in MSWORD format 1 week after the group has returned to Greeley. It will be returned to you with comments 1 week after that. No points will be assigned at this stage.

Your final paper is due in MSWORD format 1 week after the comments are returned to you. It will then be graded. Any paper turned in late will receive a 5pt deduction per 24 hours. Note that this is 10% of the grade (i.e., one letter grade) per day that the final corrected and re-edited paper is due.

### **UNC Policies**

**Student Handbook:** UNC's policies and recommendations for academic misconduct will be followed. Consult your student handbook for university policies on student conduct in the

classroom, online, cheating, plagiarism, and other academic expectations.

<http://www.unco.edu/dean-of-students/>.

**Disability Support Services:** It is the policy and practice of the University of Northern Colorado to create inclusive learning environments. If there are aspects of the instruction or design of this course that present barriers to your inclusion or to an accurate assessment of your achievement (e.g. time-limited exams, inaccessible web content, use of videos without captions), please communicate this with your professor and contact Disability Support Services (DSS) to request accommodations. Office: (970) 351-2289, Michener Library L-80. Students can learn more about the accommodation process at <http://www.unco.edu/disability-support-services/>

**Honor Code:** All members of the University of Northern Colorado community are entrusted with the responsibility to uphold and promote five fundamental values: Honesty, Trust, Respect, Fairness, and Responsibility. These core elements foster an atmosphere, inside and outside of the classroom, which serves as a foundation and guides the UNC community's academic, professional, and personal growth. Endorsement of these core elements by students, faculty, staff, administration, and trustees strengthens the integrity and value of our academic climate.

**Course add/drop/withdrawal:** This course is considered a short course and will have specific add/drop/withdrawal dates differing from the regular semester dates. Please refer to the special term/short course deadlines found on the Registrar's website:

<http://www.unco.edu/registrar/current-students/course-add-drop.aspx>.