

Originality in the Arts and Sciences

- *Freshman Research Initiative Research Methods*
- *Plan II Honors TC310 Modes of Reasoning (Unique Numbers 44692 and 44693)*
- *Dean's Scholars NSC301C Course (Unique Numbers 50305 and 50310)*

Overview: Students are introduced to the traditions established in the arts and sciences for generating new knowledge from original ideas. Modeling after the way that faculty conduct research, students are required to create original research reports or papers that utilize skills introduced in lecture and developed using the resources of the university including libraries, museums and research collections, research laboratories and computer facilities. Faculty, graduate students and undergraduate mentors will form intellectual communities in which students develop confidence in creating original ideas that will be subject to inquiry.

Instruction Team:

Faculty

David Laude (Lead Instructor) Chemistry and Biochemistry dalaude@mail.utexas.edu
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Douglas Bruster (Lead Instructor) Department of English bruster@mail.utexas.edu
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Teaching Assistants

Brooke Hunter (keeper of grades) English brookemhunter@yahoo.com
Vanessa Williams (keeper of PAI 4.14) Chemistry vanessa.m.williams@mail.utexas.edu

Undergraduate Teaching Assistants (UGTAs) and Cohort Leaders

UGTAs		Majors (including double majors)	e-mail
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Course Components

Meeting Times

Lectures: Monday and Wednesday from 10 to 11 in UTC 4.112

Administrative Meetings: This course is complicated so some times the class will meet on Fridays from 10 to 11 in UTC 4.112 to find its bearings.

Lab Times: Tuesday 3:30 to 9 pm and Friday 6 to 9 pm in PAI 4.14

Lectures: Professors Laude and Bruster will usually lecture once each, per week. Lecture topics are included in the course outline. In addition to the discipline-specific lectures, regularly scheduled informal conversations between the faculty and students will address more general ideas of interest to academicians.

Laboratory: This OAS class has the use of PAI 4.14 between 3:30 and 9 on Tuesday and again on Friday evening from 6 to 9 pm. The laboratory is a good place for incubating inquiry ideas and post-inquiry reflections. You will also perform at least one inquiry using the equipment in the lab. One of your TAs, Vanessa Williams, will manage the lab on Tuesdays and will make sure you are safety-trained and know how to check out and use the equipment.

Cohorts and UGTAs: Each student will be assigned to a cohort of about 8 students with a lead UGTA. The cohorts will attempt to gather students with similar majors, career interests or intellectual thrusts. You are required to meet once a week for an hour with your cohort. It is within the cohort that much of the guidance will be provided in developing inquiry ideas and executing skill modules. Your cohort UGTA will be responsible for managing your work product and seeing that it gets where it needs to go for grading.

Assignments: There are no exams. Instead you will be asked to turn in 16 assignments.

- Three inquiries each of which is worth 15% of your course grade
- Twelve skill modules each of which is worth 2.5% of your course grade
- One group project that is worth 25% of your course grade

Inquiries: The primary mode of assessment will be the work product of self-directed inquiries spawned from original ideas. Each student must complete three original inquiries that will fulfill one-third of the requirements for the course grade.

Skills Modules: Over the course of the semester you will be asked to develop an array of skills that you will find to be useful in your quest to become an independent, creative thinker at UT Austin. The resources of this university are vast, and believe it or not, extend well outside the classroom. You may decide to learn how to navigate the HRC or calibrate a photometer or use Excel to do a statistical analysis or simply talk with a professor about an idea you have. Think of it sort of like earning your merit badges. You will need to earn 12 badges and there will be scores of possibilities from which to choose. To some extent you will decide which ones are right for you (except that we will certainly make you do some that you would prefer to avoid.) These skill modules will constitute about one-third of your grade. Do one a week and it won't seem so bad.

Group Project: Throughout the semester your cohort will work together to create either a science or humanities research proposal. The project, which has the weight of a final exam, will require that you engage yourself with every aspect grantsmanship, from coming up with a good idea, to creating context and justification, to developing a timeline, project scope and budget, to drafting a fully developed proposal in a discipline-appropriate style. Through this assignment you will experience the various stages of the proposal process: reference work, vetting by experts, presentation, criticism and rebuttal.

Assignment Grading: This is an honors course—you are expected to do your work well. Should you turn in work the instructors consider to be inferior, it will be returned with suggestions on how to improve. In other words, the two grades you can receive on an assignment are pass or keep (start) trying. Your UGTAs will grade the skill modules. Your professors will grade the inquiries.

Portfolio: A portfolio in which you have neatly organized your 16 assignments must be submitted to Dr. Laude's office by Friday, December 12 at 5 pm. Your final course grade will be determined after an evaluation of the portfolio materials. You can pick up your portfolio on the first day of class in the spring semester.

Course Grade: To pass the course you must receive a grade of "pass" for all 16 of your assignment. Read between the lines to figure out what grade you will receive if all of your work is accepted or the grade you will receive if that doesn't occur.

Late Work: Philosophically Dr. Laude is opposed to assigning due dates for material. The problem is that if left to your own devices, about 25% of you will crash and burn, which is no way to start college. The only obvious solution is to establish expected due dates and to hound you mercifully till you get the work done.

Attendance: Students are expected to attend class and cohort meetings unless permission is received to be absent. Period.

Chaos: 2 professors, 2 TAs, 13 UGTAs, 100 honors students, 1512 assignments with little guidance and enormous expectation.

OAS COURSE OUTLINE (08/26/2008)

Lec. #	Day	Date	Topic	Presenter	Assignments
1	W	8/27	Syllabus, Course Overview, Inquiry 1	Laude	Inquiry 1 assigned
	F	8/29	Administrative day	UGTAs	Cohorts Created, Group Project Assigned
2	W	9/3	Academic Epiphanies	Bruster/Laude	Inquiry 1 idea approved
3	M	9/8	Scientific Method	Laude	
4	W	9/10	What are the Humanities?	Bruster	
	F	9/12	Administrative Day	Bruster/Laude	Inquiry 2 assigned
5	M	9/15	Statistics and Uncertainty	Laude	Inquiry 1 due
6	W	9/17	Keywords—learning through and about words	Bruster	
7	M	9/22	Comments on Inquiry 1	Bruster/Laude	Inquiry 2 idea approved
8	W	9/24	The Secret Lives of Academicians	Bruster/Laude	
	F	9/26	Administrative Day	Simmons	Freshman Research Initiative
9	M	9/29	Experimental Design	Laude	
10	W	10/1	History—why and how context matters	Bruster	Group Proposal Idea Approved
11	M	10/6	Optimization	Laude	
12	W	10/8	Dialogue—learning by talking and listening	Bruster	
	F	10/10	Administrative Day		Inquiry 3 assigned
13	M	10/13	The ins and out of scientific proposals	Laude	Inquiry 2 due
14	W	10/15	The ins and out of humanities proposals	Bruster	
15	M	10/20	Modeling the Natural World	Laude	Inquiry 3 idea approved
16	W	10/22	Modeling Language—can I assign a linguistic structure to this?	Bruster	
17	M	10/27	All Lies—The Truth About Making Data Pretty	Laude	
18	W	10/29	Stories—learning through and about narrative	Bruster	
19	M	11/3	From Nature to Computer to You	Laude	
20	W	11/5	Ideas in the Humanities—and how they matter	Bruster	
21	M	11/10	Uncertainty revisited	Laude	Inquiry 3 Due
22	W	11/12	The Two Cultures	Bruster	
23	M	11/17	So have you gotten better at being creative?	Laude/Bruster	
23	W	11/19	Criticism—why professors have a hard time making friends in the real world	Laude/Bruster	
	F	11/21	Group Presentations	Cohorts 1 and 2	Full Proposals Due
	M	11/24	Group Presentations	Cohorts 3 and 4	
	W	11/26	Group Presentations	Cohorts 5 and 6	
	M	12/1	Group Presentations	Cohorts 7 and 8	
	W	12/3	Group Presentations	Cohorts 9 and 10	
	F	12/5	Group Presentations	Cohorts 11 and 12	Proposal Criticisms Due
	F	12/12	Final Exam Time from 2 to 5 pm		Portfolios Due by 5 pm

