INF 200: Research Methods for Informatics (3 credit hours)
Class Number 9644

Meeting Information: **Mondays & Wednesdays 2:45 - 4:05 PM in room LC0003B**

Instructor: Norman Gervais

Office location: BA 313
Office hours: Mondays 12:45-1:45 and Wednesdays 10:15-11:15 or By Appointment
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TA: Cameron Smith

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Course Information:

Course description from *Undergraduate Bulletin*:
In this course students will gain an understanding of key methods, and techniques in research; prepare to critically evaluate, and engage in, research. Topics covered will include: identifying and articulating research problems, posing research questions, research design, data collection strategies, quantitative and qualitative analyses, interpreting results of analyses, and concerns in human subject research.

Course Approach
I believe (and research shows) that students learn best from interacting with texts and with other learners, engaging in challenging tasks, being held accountable for their work, and receiving frequent feedback on their progress. As a result, this course was designed with these elements in mind.

Prerequisites: INF 100, Information in the 21st Century.

General Education Component:
Gen Ed [http://www.albany.edu/undergraduate_bulletin/general_education.html]

> **Critical Thinking:**
> Approved courses provide opportunities for students to the systematic process of analyzing and evaluating data, hypotheses, arguments, or critiques through critical thought. It is an essential component of any academic major. The research, scholarship, and creative activities of university faculty ensure that our academic disciplines are constantly evolving. The facts and theories in academic disciplines are essential knowledge our students must learn, but it is mastery of critical thinking that will allow for lifelong educational and occupational development, and facilitate students' functioning as engaged citizens. Students' coursework in the major will cultivate in them habits of critical thinking, as they learn to approach questions and problems in critical, logical, and reflective ways.
>
> Students completing educational experiences that satisfy the Critical Thinking competency as part of the requirements for graduation in the major will:
> * formulate complex questions, problems, and hypotheses clearly and precisely, and apply familiar and new concepts in developing solutions and conclusions;
> * gather and assess relevant information/data;
> * test hypotheses against relevant criteria and standards, accounting for the facts;
> * develop well-reasoned arguments and communicate them effectively to others;

- demonstrate habits of reflection upon their own and others' thinking—identifying, analyzing, and evaluating their own and others' arguments; and challenging conclusions with alternative explanations or points of view.

Course Goals:
By the end of the semester, you should be able to:
- Describe current ethical issues in Informatics research.
- Formulate good research questions and design appropriate research.
- Collect your own data using a variety of methods.
- Critically evaluate your own research and that of other social scientists.

Readings & Additional Required Materials

Required readings:

> Schutt R.K. (2012). *Investigating the social world: The process and practice of research* (7th ed.). Thousand Oaks, Ca.: Sage Publications.
>
> **NOTE:** You can rent a digital copy of this edition through *Coursemart* http://www.coursesmart.com/IR/7333702/9781412999809?_hdv=6.8 (less expensive)
>
> **NOTE**: The 6th edition of this textbook would be acceptable (and less expensive!) for our course.

Highly Recommended Additional Materials:

> Personal, portable laptop or tablet for use during class.
>
> USB Flash Drive (4GB or more)

Class Meetings

The class meets twice a week: Monday and Wednesday, 2:45-4:05 pm. It is **very** important that you attend class - there are quizzes at random and team activities almost every day, for which everyone is responsible. Your grade will suffer if you are consistently absent. There will be no make-up opportunities for in class work and quizzes.

Attendance:
Attendance is expected in every class and students are expected to arrive on time. If you foresee a time conflict in advance that will prevent attendance at a class or exam or completion of an assignment, you need to report this to your team members prior to scheduled class time. An absence will only be considered excused if it was previously discussed and agreed upon by me.

Students absent (for any reason!) for more than 20% of classes (6 classes) will receive a grade of E.

Plan carefully for classes that you know you will need to miss. Work, religious practice, sports team travel, military duty, club activities, fraternity/sorority obligations, family responsibilities, assignments for other courses, and even brief illnesses, etc.—these are your responsibility to manage. If you need to be out of class for any of these, make sure you have conserved your allowable absences to cover the class you need to miss.

Teams:
This course uses a team-based learning approach. On the first day of the course, you will be assigned to a team that will work together throughout the semester. Course grades will be influenced by team performance on team-based assignments.

Grading & Evaluation Methods:

The grade breakdown for the course is:

- Individual Assignments: 40%
- In-Class Assessments: 30%
- Reading Quizzes (unannounced): 10%
- In-Class Participation: 20%

A-E graded:

93 – 100% A	77 – 79% C+	60 – 62% D-
90 – 92% A-	73 – 76% C	0 – 59% E
87 – 89% B+	70 – 72% C-	
83 – 86% B	67 – 69% D+	
80 – 82% B-	63 – 66% D	

Make-up Policy:

There are generally no make-up opportunities for missed assignments and quizzes. Instead of asking to make up missed work, please see the course 'safety valves' described below.

Since there will be occasions in your life when missing a class meeting is simply unavoidable, this course has a no-fault safety valve.

Safety valve 1

You may miss ONE in-class assignment and quiz. So, if you must miss class for any reason, it will be possible to drop the zero you would automatically receive for missing the assignment. Be careful not to waste your drop on frivolous things early in the semester, since you may need it if you catch a cold or need to leave town for a day later in the semester. If you do not use your safety valve for a missed class, you will be able to use your safety valve to improve your grade, by dropping your lowest in-class assignment and quiz score.

Plan carefully for classes that you know you will need to miss. Work, religious practice, sports team travel, military duty, club activities, fraternity/sorority obligations, family responsibilities, assignments for other courses, and even brief illnesses, etc.—these are your responsibility to manage by using your safety valve. If you need to be out of class for any of these, make sure you have conserved your droppable grade to cover the class you need to miss.

Safety valve 2

If you become seriously ill during the semester, or become derailed by unforeseeable life problems, and have to miss so many assignments that it will ruin your grade, schedule a meeting with me in order to make arrangements for you to drop the course to save your grade point average. Don't wait until it's too late to see me when you get in trouble.

Late Assignments:

Assignments and quizzes are due on the due date at the specified time, in class or submitted through Blackboard, depending on the assignment or quiz. Late individual assignments will be accepted, but at the cost of a full letter grade for missing the first deadline and an additional letter grade for each additional 24 hours late. No assignment will be accepted more than 48 hours past the original due date. In class assignments and quizzes will not be accepted late.

Other Course Information:

Withdrawal from the course:
The drop date for the spring semester is Tuesday, November 4th for undergraduate students. That is the last date you can drop a course and receive a 'W'. It is your responsibility to take action by this date if you wish to drop the course. In particular, grades of "incomplete" will not be awarded to students because they missed the drop deadline.

Cell phones, tablets & laptops:
Please make sure your phones and other electronic devices are turned off before entering the classroom unless we are doing a class exercise where they are required. Use of phones, tablets, computers, etc. for non-class purposes during class will count against you in your class participation grade. While you may be using computers in class, texting, using Facebook, etc., are not appropriate uses of class time and your participation grade will suffer for it.

Incompletes:
As per the Undergraduate Bulletin, the grade of Incomplete (I) will be given "only when the student has nearly completed the course requirements but because of circumstances beyond the student's control the work is not completed." A student granted an incomplete will make an agreement specifying what material must be made up, and a date for its completion. The incomplete will be converted to a normal grade on the agreed upon completion date based upon whatever material is submitted by that time. *Important:* Incompletes will not be given to students who have not fulfilled their classwork obligations, and who, at the end of the semester, are looking to avoid failing the course. This is asking for special treatment.

Academic Integrity:
It is every student's responsibility to become familiar with the standards of academic integrity at the University. Claims of ignorance, of unintentional error, or of academic or personal pressures are not sufficient reasons for violations of academic integrity. See Academic Integrity [http://www.albany.edu/undergraduate_bulletin/regulations.html]

Any incident of academic dishonesty in this course, no matter how "minor" will result in
1. No credit for the affected assignment.
2. A written report will be sent to the appropriate University authorities (*e.g.* the Dean of Undergraduate Studies).
   And may result in:
3. One of -
   o A final mark reduction by *at least* one-half letter grade (*e.g.* B → B-, C- → D+),
   o A Failing mark (E) in the course, and referral of the matter to the University Judicial System for disposition.

Responsible Use of Information Technology:
Students are required to read the University at Albany Policy for the Responsible Use of Information Technology available at the ITS Web Site:
https://wiki.albany.edu/display/public/askit/Responsible+Use+of+Information+Technology+Policy

Time Management:
For every credit hour that a course meets, students should expect to work 3 additional hours outside of class every week (3 x 3= 9). For a three-credit course you should expect to work 9 hours outside of class every week. Manage your time effectively to complete readings, and assignments.

Available Support Services:

Reasonable accommodation
> Reasonable accommodation will be provided for students with documented physical, sensory, cognitive, learning and psychiatric disorders. If you believe you have a disability requiring accommodation in this class, please notify the Director of Disability Resource Center (Campus Center 137, 442-5490). That office will provide the course instructor with verification of your disability, and will recommend appropriate accommodations. In general, it is the student's responsibility to contact the instructor at least one week before the relevant assignment to make arrangements.

CCI Student Information
> The College of Computing and Information offers students career development, social events and academic advising. Please stop by our offices or visit the CCI Facebook page for more details and upcoming events: CCI Facebook
> [http://www.facebook.com/CollegeofComputingandInformation#]

Course Outline and Schedule:

The following schedule of topics, readings and reading assignments is preliminary and may be changed as the semester progresses. The final schedule and specific homework assignments and materials will be provided in Blackboard. Students are expected to have read the listed material before it is covered in class. Unannounced "reading quizzes" will be given throughout the semester.

Module	Topics & Assessments	Readings
1: Research Basics	Introduction and Overview	*How to Read Academic Texts Critically*
	What is social research?	Chapter 1
	Research Questions	Chapter 2
	Module 1 Assessment	
2: Quantitative Research	Measuring Concepts	Chapter 4
	Finding a Sample	Chapter 5
	Designing a Project	Chapter 6
	Experiments	Chapter 7
	Survey Research	Chapter 8
	Module 2 Assessment	
3: Qualitative Research	Basic Quantitative Data Analysis	Chapter 14
	Secondary Data Analysis	Chapter 13
	Historical Research	Chapter 12
	Field Research Interviews Content Analysis	Chapter 9
	Basic Qualitative Data Analysis	Chapter 10
	Research Ethics	Chapter 3
	Module 3 Assessment	