

# ISAT 131 - Technology, Science, and Society

## Spring 2012

### Course Coordinator: Dr. David McGraw

Online Lectures: David McGraw, Dr. Jeff Tang

Writing Instructor: Julie Sorge Way

Small Group Session Leaders:

Section 1	Mo 12:20PM - 1:10PM	Drs. Amanda Biesecker and Nicole Radziwill
Section 2	We 2:30PM - 3:20PM	Dr. Morgan Benton
Section 3	Th 3:30PM - 4:20PM	Dr. Carole Nash
Section 4	Th 3:30PM - 4:20PM	Dr. Michael Klein
Section 5	Fr 12:20PM - 1:10PM	Dr. Jeffrey Tang
Section 6	Fr 10:10AM - 11:00AM	Dr. Lee Ward
Section 8	Fr 11:15AM - 12:05PM	Drs. Eric Maslen and Joe Marchal

**Course Format:** This is a blended course. That means much of the instruction in the course will come online, but there are also portions of the course that will require your physical presence.

**Course Description:** This course introduces the social aspects of technology and science. It covers social science methods and related philosophical and ethical analyses. Students learn how the practice of science relates to the human-built world and why critical evaluations of science and technology policies are important.

**Course Objectives:** The course introduces students to major ideas and themes in the fields of science and technology studies (STS) and the ethics of science and technology. Students will be challenged to think critically about the methods, practice, and organization of science and technology and their role in society.

### Weekly Schedule:

#### Online:

Every Monday & Wednesday by 8:00 a.m. a new narrated PowerPoint lecture will appear on Blackboard, along with an associated reading assignment and an online Blackboard quiz. You will typically have one week (until 8:00 a.m. the following Wednesday/Friday) to complete the quiz. That means generally there will be two quizzes online at any given time

#### Large Classroom:

Tuesdays, 3:30 – 4:45 in ISAT/CS 159 will be used for **required class** components. We will not meet every Tuesday, but when we do, your attendance is required. These class components will include exams, exam review, writing instruction, and information literacy. See the separate document “Required Class Meetings” for more details.

#### Small Group:

You are required to meet once a week for 50 minutes with your small discussion group section (times and instructors vary). Your small group discussion leader should have a separate syllabus document describing requirements and policies for your small group.

## Grading

### Exams:

Unit 1 Exam:	15%
Unit 2 Exam:	15%
Unit 3 Exam (semi-comprehensive)	20%
Online Blackboard Quizzes:	15%
Writing Component:	17%*
Small Discussion Group Grade	15%**
Information Literacy Assignment	2%***
Senior Project Symposium Analysis	1%****

### Notes:

#### \* **Writing Component:**

The Writing Component grade will be assigned by Ms. Way. This is a required component. A grade of "F" in the Writing Component means you receive an "F" in the course.

#### \*\* **Small Group Grade:**

The Small Group grade will be assigned by your small group instructor. This is a required component. A grade of "F" in the Small Group means you receive an "F" in the course.

#### \*\*\* **Information Literacy Assignment:**

The information literacy assignment will be described in class on Tuesday, January 17 and due **electronically** by Friday, January 27.

#### \*\*\*\* **Senior Project Analysis:**

You will be required to attend at least one ISAT senior project presentation during the ISAT Senior Symposium on Friday, April 13 and write analysis of it. The analysis will be due electronically the following Tuesday, April 17. More details will be available on Blackboard in April.

## Additional policies

As required by James Madison University, a number of other policies apply to all JMU courses and are available on the JMU website, <http://www.jmu.edu/syllabus/> . These include policies on: attendance, academic honesty and Safe Assign, adding/dropping courses, disability accommodations, inclement weather, and religious accommodations.

## **Class Policies & Rules**

### **1. BlackBoard**

We will use BlackBoard extensively during this course. It is your responsibility to check in with the BlackBoard site for this course frequently for announcements. It is also your responsibility to check your grades regularly to make sure all quiz scores appear correctly, and to notify Dr. McGraw of problems promptly.

### **2. Quizzes**

All quizzes will be taken online on BlackBoard. You can take each quiz up to 5 times, and your highest score will be the one that counts as your grade. All quizzes are open book, open notes, and open Internet. Because of these generous policies, there are no make-up quizzes except in extremely unusual circumstances.

### **3. Tests**

You are required to take all tests. All tests will count towards your final grade. If you miss a test due to an excused absence (illness, etc.) you **must contact Dr. McGraw within 24 hours** to make arrangements **AND provide evidence to substantiate your excuse** (such as a written note from a doctor, etc.)

### **4. Writing Component**

Additional requirements, policies, and rules will be provided by the writing instructor, which will become a binding part of this syllabus.

### **5. Small Groups**

Additional requirements, policies, and rules will be provided by your small group instructor, including, but not limited to, policies on attendance, participation, and classroom behavior which will become a binding part of this syllabus.

### **6. Honor Code**

- A Exams. According to the JMU Honor Code, cheating on a test includes (but is not limited to) using unauthorized materials or receiving unauthorized assistance, copying information from another student, rendering unauthorized assistance to another student, or obtaining prior knowledge of examination materials (including by using copies of previously given examinations obtained from files maintained by various groups and organizations) in an unauthorized manner.
- B Assignments. Unless you are explicitly permitted to work on a project in connection with a group, written work is to reflect your own ideas and your own words, or be specifically attributed to another source. It is a violation of the JMU Honor Code to use a commercially prepared paper or research project, submit for academic credit any work completed by someone else, or plagiarize (defined as "the deliberate copying, writing or presenting as one's own the information, ideas or phrasing of another person without proper acknowledgment of the true source.")
- C Penalties available under the JMU Honor Code include assigning a reduced or failing grade on the examination, assigning a reduced or failing grade in the course, or assigning "F" in the course and expulsion from the University.

### **7. Responsibility for Understanding the Syllabus**

You are responsible for understanding the policies and procedures laid out in this syllabus.

## Important Dates Spring Semester 2012

Date	Topic
Tues, Jan 10	First Day of Class – Explanation of course content and policies
Fri, Jan 27	Annotated bibliography due (electronically on BlackBoard by 5:00 p.m.)
Fri, Feb 3	Outline due (electronically on BlackBoard by 5:00 p.m.)
Fri, Feb 10	Students should receive feedback on outline
<b>Tues, Feb 21</b>	<b>EXAM 1</b>
Fri, Feb 24	First draft of paper due (electronically on BlackBoard by 5:00 p.m.)
<b>Mar 5 - 9</b>	<b>Spring Break</b>
<b>Tues, Mar 27</b>	<b>EXAM 2</b>
Fri, April 13	Students should receive feedback on first draft no later than Fri, April 13
Fri, April 27	Second (final) draft of paper due (electronically on BlackBoard by 5:00 p.m.)
<b>Thursday May 3 1:00 – 3:00</b>	<b>FINAL EXAM</b>

## Required Class Meetings Spring 2012

(Unless otherwise indicated, all of these meetings will be  
Tuesdays 3:30 – 4:45 in ISAT/CS Room 159)

Date	Topic
Tues, Jan 10	First Day of Class – Explanation of course content and policies
Tues, Jan 17	Information Literacy with Librarian Kelly Giles
Tues, Jan 24	Course Writing Assignment with Julie Sorge Way
Tues, Feb 7	Information Literacy with Librarian Kelly Giles (Part 2)
Tues, Feb 14	Review session for first exam (will begin at 4:00 after Assessment Day activities)
<b>Tues, Feb 21</b>	<b>EXAM 1</b>
<b>Mar 5 - 9</b>	<b>Spring Break</b>
Tues, Mar 20	Review session for second exam
<b>Tues, Mar 27</b>	<b>EXAM 2</b>
Tues, Apr 24	Review session for third exam
<b>Thursday May 3 1:00 – 3:00</b>	<b>FINAL EXAM</b>

## Online Lecture Schedule

Mo.	Day		General Topic	Detailed Topic
Jan	13	F	Welcome to the Course	Lecture 1: Explanation of themes in the course
	18	W	Science – General	Lecture 2: Definitions of science & technology
	20	F	Science – Philosophy of Science	Lecture 3: The scientific method, orthodox views of science, and Falsificationism
	25	W	Science – Philosophy of Science	Lecture 4: Scientific Revolutions
	27	F	Science – Philosophy of Science	Lecture 5: Methodological Anarchism and Research Programmes
Feb	1	W	Science – Science Studies	Lecture 6: Disciplines & intro to science studies
	3	F	Science – Science Studies	Lecture 7: Sociology of scientific knowledge & the sad case of Pluto
	8	W	Science – Science Studies	Lecture 8: Case Study: Galileo & the Catholic church
	10	F	Science – Science Studies	Lecture 9: Cold fusion: science & technology
	15	W	Science – Science Studies	Lecture 10: Alternative perspectives on science
	17	F	Science – Science Studies	Lecture 11: Burden of proof and policy: global climate change
	22	W	Technology & Society	
	24	F	Technology & Society	Lecture 12: Knights, serfs, and other old stuff
	29	W	Technology & Society	Lecture 13: Giving up the gun
Mar	2	F	Technology & Society	Lecture 14: The refrigerator's hum & the Picturephone
	5-9	M-F	Spring Break	Spring Break
	14	W	Technology & Society	Lecture 15: Low bridges and the politics of artifacts
	16	F	Technology & Society	Lecture 16: Technological systems
	21	W	Technology & Society	Lecture 17: Amish/Mennonite Technology
	23	F	Technology & Society	Lecture 18: Highways, suburbs, and society and Progress in science & technology
	28	W		
	30	F	Ethics - Theory	Lecture 19: Introduction to ethics
Apr	4	W	Ethics - Theory	Lecture 20: Ethical theories – utilitarianism & deontological ethics
	6	F	Ethics - Theory	Lecture 21: Ethical theories – social contract theory
	11	W	Ethics - Theory	Lecture 22: Ethical Theories – other theories
	13	F	Ethics - Theory	Lecture 23: The Emotional Dog and its Rational Tail
	18	W	Ethics - Application	Lecture 24: Ethics of scarce resources
	20	F	Ethics - Application	Lecture 25: Environmental ethics
	25	W	Ethics - Application	Lecture 26: Ethics of design: considering the user
	27	F	Ethics - Application	Lecture 27: Certainty and risk: Challenger disaster

# ISAT 131 Discussion Section Syllabus

## Spring 2012

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### **Objectives**

The purpose of this discussion section is for students to have an opportunity to discuss and analyze the readings/lectures/materials assigned to them each week as part of the ISAT 131 course experience.

### **Attendance and Expectations**

Attendance is required at all sessions. The section letter grade will be dropped by one rank (i.e. from A to B) for all unexcused absences. Students are expected to have read and/or prepared for the discussion sections each week so that they can make a more valuable contribution to the class discussion.

### **Instructor Information**

Morgan Benton  
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Office Hours: By appointment  
Office phone: 540-568-6876  
Email: [bentonmc@jmu.edu](mailto:bentonmc@jmu.edu)