

# CS 330/ISAT 440-Social Impacts of Computing-Syllabus 2017 Spring

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## Overview

Welcome to CS 330/ISAT 440, Social Issues in Computing! This course is designed to cover topics related to Social Issues and Professional Practice as described in Appendix A of the [ACM/IEEE 2013 Curriculum Guidelines for Undergraduate Degree Programs in Computer Science](#)<sup>1</sup>. That document says (p192):

*Undergraduates need to understand the basic cultural, social, legal, and ethical issues inherent in the discipline of computing. They should understand where the discipline has been, where it is, and where it is heading. They should also understand their individual roles in this process, as well as appreciate the philosophical questions, technical problems, and aesthetic values that play an important part in the development of the discipline.*

*Students also need to develop the ability to ask serious questions about the social impact of computing and to evaluate proposed answers to those questions. Future practitioners must be able to anticipate the impact of introducing a given product into a given environment. Will that product enhance or degrade the quality of life? What will the impact be upon individuals, groups, and institutions?*

*Finally, students need to be aware of the basic legal rights of software and hardware vendors and users, and they also need to appreciate the ethical values that are the basis for those rights. Future practitioners must understand the responsibility that they will bear, and the possible consequences of failure. They must understand their own limitations as well as the limitations of their tools. All practitioners must make a long-term commitment to remaining current in their chosen specialties and in the discipline of computing as a whole.*

## Grades

A great deal of research on learning indicates that really [the only good predictor of how much someone will learn is the actual amount of time they spend engaged in learning activities](#)<sup>2</sup>. Therefore, here is how the point accumulation system will work.

**1 point  $\approx$  1 hour of effort (maybe very approximate)**

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<sup>1</sup> <http://www.acm.org/education/CS2013-final-report.pdf>

<sup>2</sup> <http://www.education.com/reference/article/time-on-task/>

For financial aid purposes, the federal government considers you to be a “full time” college student if you are taking at least 12 credit hours per semester. That typically represents about 4 courses. A full-time job is typically 40 hours per week, so:

$$40 \text{ hours/week} \div 4 \text{ courses} = 10 \text{ hours/course/week}$$

A semester at JMU is 15 weeks long, so:

$$10 \text{ hrs/course/wk} \times 15 \text{ wks} \times 1 \text{ pt/hr} = 150 \text{ pts/course}$$

In other words, you need to be spending about 10 hours per week on this course to get the maximum expected value. In order to translate points into letter grades, I'll divide 150 by 5, and assign +/- to the top and bottom 9 points of any grade range so to get into the “A” range, you'll need to plan to spend 8-10 hours per week on this course:

#### **Grade Points**

A	129-150
A-	120-128
B+	111-119
B	99-110
B-	90-98
C+	81-89
C	69-80
C-	60-68
D+	51-59
D	39-50
D-	30-38
F	0-29

## How will you earn points?

### Complete badges

Each badge is designed to be mostly self-contained and to allow you to develop proficiency in a specific skill or set of related skills. I will assign points for each badge and the number of points I assign will be my rough estimation of how long I think it should take you to complete it. Therefore, you can manage your time for any given week by adding up the number of points in the badges you plan to complete. Most will likely be 3-5 points. More trivial ones may only be 1 or 2 points.

## Plan and present a lecture/tutorial for your classmates

Pick a slice of relevant content and put together a lecture or hands-on tutorial. It should be targeted at anywhere from a 5-minute mini-tutorial to a full 45 minutes and should be clear and hopefully fun. You will need to coordinate with me well ahead of time BEFORE you start working before we schedule it. You can publicize the talks to other sections so that they can attend as well. I may consider awarding extra points for exceptionally well-attended talks. The point range for these talks will be the same as for newly created badges. If they are exceptionally good, I may also award extra points if you go the extra step to record the tutorial in a web-accessible format for future students. [Hint: a good tutorial on how to make high-quality tutorial videos for the web might be a good first lecture for someone to do!]

## Community/Entrepreneurship points

You can earn points by doing things that take time, contribute to your own learning, and also make life better for me and/or your classmates. For example, Dr. Radziwill typically selects 3-4 talented people from her classes to be her deputies, and gives them authority to sign off on points for their classmates. Be creative! Wow us. Entrepreneurship is about taking initiative and having follow-through. Community awareness is about having empathy and compassion.

## (For 440 Only) Coding the Semester Project

We will be working on a software system together. You'll earn points by working diligently on coding that.

Here are some other things to keep in mind:

- **You can do nearly everything in teams**

I strongly encourage collaboration. Keep in mind that regardless of actual effort, everyone in the team will receive all of the points or none of them. That means that if in our post-badge conversation, one of the team members doesn't seem to be up to speed, nobody will get any points until that person is able to demonstrate the same level of proficiency as everyone else. This is to encourage you to help each other out with understanding content. [Remind me to tell you the story about the difference between heaven and hell.]

- **Some activities might take longer than the number of points suggests**

While unfortunate, this is unavoidable. If you feel disgruntled by this, then you will feel the same way that thousands of people do every day who are involved in software projects that have taken longer than estimated. I will not be adjusting the number of points for any of the badges or assignments.

- **There is no partial credit**

- **I don't negotiate points**

I am more than happy to talk about the content, and work with you to overcome

challenges you are having. I'm happy to suggest ways in which you might have accomplished a task more efficiently. It is vital for you to understand that the point system is heuristic at best, and completely arbitrary and wildly inaccurate at worst.

As a final note, I know this point system is not perfect. It's kind of like Winston Churchill said about democracy ([Churchill by Himself](#), p574):

*...it has been said that democracy is the worst form of Government except for all those other forms that have been tried from time to time...*

This point system is the best/worst point system, except for all of the other point systems.

## Textbook

All students in both 330 and 440 will be reading the following:

[Rushkoff, Douglas. 2016. Throwing Rocks at the Google Bus: How Growth Became the Enemy of Prosperity. Portfolio/Penguin, New York, NY.](#)

## Schedule & Flow

One of my favorite quotes of all time is:

*80% of success is showing up. –Woody Allen*

The most important thing you can do in this class is show up and do work. Here's a great story of what can happen when you do:



From your instructor's viewpoint, class time belongs to the class, and we should make decisions together about how it should be spent. In general the use of class time will be fluid. Any given day may be used in the following ways:

- Teams or individuals working on badges independently
- Mini or full lectures delivered by anyone in the class
- Code review sessions, where the class offers feedback on other teams' code
- Status updates or reports by teams or individuals
- Class discussions

The schedule for the course will roughly follow the following:

#### **Week Topic**

1	Course Intro
2	Privacy I
3	Economics I
4	Economics II
5	History
6	Civil Liberties
7	Intellectual Property
8	Warfare and Defense
★	SPRING BREAK!!!
9	Project/Paper Development
10	Privacy II
11	Ethics I
12	Ethics II
13	Project/Paper Work
14	Practice presentations
15	Presentations

## Personal Integrity

First:

**If I catch you cheating, or doing anything else dishonest, you will fail the course. Period.**

Second, that being said, I strongly encourage sharing and collaboration in most every aspect of the course. That means that I think it's a smart idea for you to:

- Download code you find on the web (include the URL of where you found it and some notes about how you got there)
- Download your classmates' code and use it, even before an assignment is due
- Pay someone to help you write code
- Get code from upperclassmen or people in previous semesters
- Ask your neighbor to give you a hint on a question on a test that you're stumped on

- Use whatever notes, websites, books, or other materials you need to complete most any assignment or test

You'll note that many of the above behaviors would be considered "cheating" in many or most other courses. Here are some guidelines I'd like you to follow:

- **Never EVER copy without attribution**  
Even on tests, if someone or something helped you out, acknowledge it. Make notes in your code if you got it from someone or somewhere else. Copying without attribution is stealing and is a breach of integrity. If you got the code off of the web, there should be a URL and some notes about how you found it. If you paid someone to help you write it, say so.
- **Never copy without understanding**  
The point of the class is to learn and understand stuff. Since you don't get any grades on individual tests or assignments, it's pretty stupid to copy something that you don't understand. Think about it. What point could it possibly serve?
- **Be very hesitant to copy an ENTIRE project**  
While there's a lot to be gained by incorporating parts of your classmates' code in your own project, copying someone else's entire project doesn't really provide you much of a learning experience and wastes people's time.
- **Try to figure it out yourself first**  
90% of writing programs is learning how to write them, and this will stay the same throughout your entire programming career. Being a self-sufficient learner is one of the primary goals of the course.

Code re-use is a HUGE part of hacker culture. What hackers hate more than anything is not understanding stuff. I want you to get a sense for what it's like to be a part of the fun world of professional hackers.

Okay, so what do I consider a breach of integrity worthy of failure?

- **Lying about anything to anyone in the class**  
It could be as trivial as the reason why you didn't show up for class or do your part of a group assignment. Everybody screws up sometimes. Don't compound the mistake by lying about it. We can forgive mistakes but it's VERY difficult to regain trust once it's broken. Swallow your embarrassment or fear and fess up.
- **Stealing anything--this includes copying without attribution**  
Stealing is just wrong, and since you have a blanket license to copy most any code you can find, there's no reason not to give people credit for the work they did. Passing someone else's original work off as your own is frankly disgusting.
- **Threatening, antagonizing, or intimidating anyone in our learning community**  
This is unacceptable behavior and will get you at least fired, if not sued in most every company you'd ever work for.

If you are in doubt about something, please ask your prof. Please feel free to come speak to your prof in confidence about anything in this course that troubles you. So far at JMU I've never had a problem with anyone's integrity (that I know about). Don't be the first group to ruin my perfect record. Thanks!

## Important Dates & Deadlines

At the behest of the registrar, a list of dates you may wish to take note of:

- Tuesday, January 19th: Last day of add/drop
- Thursday, January 28th: Last day to add a class with Department Head signature
- Friday, January 29th: Last day to withdraw from JMU with charges canceled

So if I scare you off, get out early. Or conversely, if I turn you on, join us soon!

My academic integrity policy is different from JMU's standard policy, but I will adhere to JMU's standard policies listed on the [JMU Syllabus Information for Students](#) page with respect to add/drop, disability accommodations, inclement weather and religious accommodations.

## The Prof

My research mainly involves coming up with pedagogical alternatives that maximize student motivation and learning. Being a tech geek, web-based technology plays a pretty heavy role in what I came up with.

My favorite part of my job is getting to hang out with students and play with technology. Feel free to come see me any time. My info:

Office **ISAT/CS 124**

Office Hours **Make an appointment**

Mobile **973-495-7736** (calls and texts are ok within reason)

Email **bentonmc@jmu.edu**

Facebook **<http://www.facebook.com/morgan.benton>**

Twitter **<http://twitter.com/morphatic>**

Blog **<http://www.burningmindproject.org>**