ISAT 348--The Multimedia Industry--Syllabus

Fall 2015

Course Overview

ISAT 340 (Software Development) is designed to give students an opportunity to develop proficiency in some or all of the following areas:

- Project Selection:
    - Sociocultural ramifications of project selection
    - The influence of software on political and power dynamics
    - Modern models for software distribution (commercial, open-source, hybrid)
    - Choosing a software license
- Technologies:
    - Basic, client-side web standards (HTML5, CSS, Javascript)
    - Popular, server-side web standards (PHP/Python/Ruby)
    - Relational database analysis, design, implementation, and integration (SQL, MySQL)
    - Object-Relational Mapping tools (ORM) and Object-Oriented Programming (OOP)
    - Source code management (Git/Github)
    - Web protocols (HTTP, (S)FTP)
    - Popular web servers (Apache)
    - Web frameworks and CMS (WordPress/Laravel/Django/Rails)
- Professional Skills:
    - Creating and managing a web hosting account
    - Setting up a (team) development environment
    - Coding and documentation following standards and style guides
    - Test-driven Development (TDD)
    - Proposal writing for web/mobile/software projects
    - Package management
    - Debugging and code review
    - Open-source culture and communication

In addition to developing the skills above, students will have the opportunity to discover if they enjoy working in this field.

Grades

Please note that I am NOT allowing students to automatically choose their own grades this semester. Please be aware of this and plan accordingly.

Why I am NOT Allowing Choose-Your-Own-Grade This Semester?

The short answer is that it is not working as well as it used to. When I started doing choose-your-own-grade in 2009, overall student performance soared–I had better than average attendance and the quality of student work was through the roof. Over time, however, as word has gotten out that Benton's class is an "easy A," I've begun to attract more and more students who sign up for my class specifically because they know they won't have to do anything. The purpose of choose-your-own-grade is to help students learn more, and better than they would under another system. If this is not happening then it has come time to change course. It is time to change course.

How will you be graded?

Your grade in this class will be based upon the only thing that you truly have control over: the amount of time you spend working on the course. I will keep track of your effort using a points accumulation system, modeled after the system developed and used by Dr. Nicole Radziwill. Please read about the points accumulation system very carefully!!!

What About Choose-Your-Own-Grade?

I would still like to offer the opportunity to choose your own grade. I stand by my belief that it is impossible for anyone to know what grades mean, and that on the whole, they are more detrimental than beneficial to learning.

So, I am going to offer two chances during the semester for you to switch from the points accumulation system to choose-your-own-grade. There will be no leniency, no negotiation, no wiggle room with these deadlines.

- **Deadline #1: 5:00PM, Friday, October 2nd**
  If you have accumulated at least 40 points by this deadline, you can, at your choice, switch to choose-your-own-grade.
- **Deadline #2: 5:00PM, Friday, November 6th**
  If you have accumulated at least 80 points by this deadline, you can, at your choice, switch to choose-own-grade.

I've included two chances so that if you miss the first one, you can work extra hard and possibly make the second one. Please note that you do not have to switch if you do not want to. Everyone is welcome to remain in the points accumulation system.

The Points Accumulation System

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. Therefore, here is how the point accumulation system will work.

1 point ≈ 1 hour of effort (maybe very approximate)

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 hours/week ÷ 4 courses = 10 hours/course/week

A semester at JMU is 15 weeks long, so:

10 hrs/course/wk x 15 wks x 1 pt/hr = 150 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 (labs)**
  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 lab 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 labs you plan to complete. Most will likely be 3-5 points. More trivial ones may only be 1 or 2 points.
- **Create new labs for your classmates**
  I am a big fan of peer teaching and also entrepreneurship. Creating labs is time-consuming for me, and also not that exciting since I already know most of this stuff. If there's a skill or concept you'd like to know and/or that you think your classmates would benefit from, and if there's not already a good lab for it, you can earn points by creating one. I will have to do your lab myself and give you feedback before your classmates can earn points by completing it. You will earn approximately double the number of points for creating a lab as for just following one, so 2-10 points. As an added bonus, you will earn the privilege of being the person to sign off on and assign points to your classmates who complete your lab.
- **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 labs. 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!]
- **Complete a semester project**
  A semester project should take you a good 3-4 weeks or more of concerted effort and so will be worth 30~40 points. You may do projects in teams of no more than 3 people. More details are on the semester project description page.
- **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.

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-lab 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 labs 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. After all, this is why I have not used a point system in years and developed the choose-your-own-grade approach.

As a final note, I know this point system is not perfect. I have not had any sort of point system in any of my classes in years. 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.

How To Earn Points

Since for at least the first five weeks of the semester, everyone will be working to accumulate points, it is important to understand exactly how you do this. The way you get points is different depending on what it is you're doing:

For Labs

1. Click the "I want to learn this!" button on the right of the page describing the lab
2. Read it carefully and follow the instructions
3. Once you believe you have fulfilled the learning objective, log into the website and create a post that:
    a. Describes what you did

    b. Explains why do you think you are done
    c. Provides links to any relevant artifacts (code, documentation, etc.)
4. Find a time to come see me, or any of the other people listed in the “Who can sign off on this lab” section. We will sit down face-to-face so you can explain to me what you did.
5. I (or your reviewer) will provide feedback, and either sign off on the lab, or give you specific things you need to do to earn a sign off

If You Are Writing a New Lab

1. Follow the instructions in the “Create a Lab” lab
2. When you and I agree that it is done, and it is published on the site, I will record your points

If You Are Delivering a Lecture or Tutorial

1. Come talk to me BEFORE you create it, so that I can help you plan
2. Create all of your supporting materials. When we both agree you’re done, we’ll schedule your lecture.
3. After it is delivered and/or recorded, I will record your points.

For the Semester Project

You don’t just get one big block of points for the project. There are milestones to follow along the path. You don’t necessarily have to have finished a milestone to get the points for it–some milestones require a lot of repetitive work (e.g. writing unit tests), and so you will likely have enough evidence for having learned the skill to earn the points even before you’ve completed the task.

When you think you have accrued enough evidence to convince me that you’ve achieved a particular milestone:

1. Create a post on the website describing what you’ve done and providing links to your evidence
2. Come see me to talk about it and get feedback
3. Once we’re both satisfied that you’ve got it, I’ll record your points

For Anything Else

For EVERYTHING you do in this class, if you’ve spent time and effort on it, there is likely going to be some learning that has happened. To get points for it:

1. Write a post describing what you learned, document your evidence, and suggest a number of points you feel you should earn for it
2. Come see me to discuss it

If you have any questions about whether or not a particular activity should be worth points or not, feel free to ask me at any time.

Choose-Your-Own-Grade

Although I think it deserves at least a book-length explication, I'll try to explain briefly the philosophy behind the choose-your-own-grade approach. I'll include links to relevant research and writings that you can follow-up on if you're curious.

I've made a truly ISAT-ty study of grades–looking at their history, psychometric and statistical properties, political, economic, cultural and sociological expression, and their cognitive, motivational, and affective impacts. As it turns out, none of these perspectives provides evidence or analysis that supports using grades to evaluate student performance. Except for one, and I'll start with that.

The argument FOR using grades

There's only one, and it's simple: **it's an efficient way to provide feedback to a large number of students (and other stakeholders–parents, legislatures, colleges, employers) in a short period of time**. While early proponents of this argument in the 19th century, when use of grades really became prevalent, were aware of grades' flaws and shortcomings, they wrung their hands and argued (probably justifiably) that there really was no other way to do it given the student-teacher ratios and the need to make a case for the value of schools and schooling at all. Keep in mind that the US was still predominantly agrarian at this point in history, and many people did not see a need for anyone to acquire more than basic reading skills, if that. It is also important to note that this is the time of the Industrial Revolution, and the standardized, one-size-fits all, assembly line approach to evaluation seemed extraordinarily appropriate given the times.

In short, **the primary argument in favor of using grades is economic**. I mean, think of the alternative to letter and number grades. Do we really expect teachers to write full essays describing each student's strengths and weaknesses in detail? Who has such time? How could we afford to pay the number of people it would take to accomplish such a task?

As such, it should be no surprise that the loudest debates about how we grade (not *if* we grade–that's taken for granted) tend to be couched in economic terms, e.g. grade "inflation." (BTW, grade inflation is a myth.) People also try to correlate grades and GPA to likelihood to get a (good) job, lifetime income potential, etc. All of them are primarily economic arguments and do not deal in a truly substantive way with the negative impacts that grades have had on nearly everyone in our society.

The arguments against using grades

I began studying grades as a way to devise the "perfect" grading strategy and use the absolutely best practices in my classes. My studies have led me to abandon the notion of using

grades almost altogether. Here are what I believe to be some of the more compelling arguments.

The Economic Arguments

Since we ended the last section with economic arguments *for* grades, let's look at some economic arguments *against* (or at least indifferent to) grading. I'll just give some basic ones, starting with one of the basics of economics, the law of supply and demand.

To restate the law, when supply is high and demand is low, prices fall. When supply is low and demand is high, prices rise. In the case of grades, the conventional argument would be that A's are (or should be) a scarce commodity, and therefore the price of acquiring one, i.e. student talent and/or effort should be high. In the case of grades, this is a bogus argument.

First of all, A's are not a scarce commodity. From the instructor's standpoint, they cost nothing to produce and there is a limitless supply. (If they were, lot of techers would be more creful bout wht they typed!) Not only can I assign as many A's as I choose, but I'm not charged $50 for every A that I assign, $25 for B's, $10 for C's etc. If anything, it's what economists would refer to as an artificial scarcity, which is when a producer intentionally destroys, withholds or declines to produce goods in order to keep prices high. I guess it's not unheard of for instructors to intentionally limit the number of "available" A's in order to scare students into working harder, but I'm not sure that a scare tactic is really a valid argument for using grades.

This begs the question of what is the value of an A? I'm sure someone has tried to quantify it in monetary terms, but a short thought experiment will show how ludicrous this is. Is an A in organic chemistry worth the same in 2014 dollars as an A in scuba diving? How about a 2.9 in the College of Business as opposed to a 3.8 in English? The artificiality of trying to make such value comparisons quickly devolves into the absurd.

But doesn't that point out the value of GPA for getting good jobs? At least one study done at VA Tech found that about 42% of the time, college recruiters did not even appear to consider GPA at all in deciding whether or not to award an on-campus interview. In 17% of the cases, it appeared that a higher GPA *decreased* students' chances of getting the interview. Of course, this still means that in over 40% of the cases, GPA was at least somewhat considered. Some companies do have GPA cutoffs for new hires. (After reading this, though, you may not want to work for those companies.) But it's important to keep in mind that your GPA will only possibly be important for your very first job upon graduating. After that, no employers will ask for it. They'll make their decision to hire you or not based on your previous job performance (possibly). So it's important to keep in mind that your GPA may not be as important in getting a job as you've been led to believe.

There is one important exception to this: graduate school. Graduate schools absolutely and nearly universally use GPA in their admissions criteria. So if you plan to go to grad school, an economist and I would agree in advising you to strive to get as high a GPA as possible. An unethical person would add “by any means necessary.” This overvaluing of grades is actually a primary source of academic dishonesty and friction between teachers and students, but we’ll get to that in the section on motivation.

The Statistical Argument

Most grades are calculated as a sum or average of some smaller set of scores. Two relevant questions to ask are:

1. What is the ***source*** of those sums or averages?
2. Are sound statistical practices being used in the ***interpretation*** of those averages?

Let’s actually start with the second question first. Statistics is a field of analysis which seeks to use the properties of numbers and mathematics to make justifiable and accurate descriptions and predictions about phenomena in the world. We typically think of the Mediterranean as a

sunny and warm place. However if you were thinking of escaping a cold Virginia winter, you may be surprised to learn that the average January temperature in Malta is only 50-60°F. Here we've used the arithmetic mean, i.e. the average, a statistical analytical procedure, to interpret weather phenomena. Your likely conclusion in this case is that if you do plan to go to Malta in January, the interpretation of the statistic is pretty clear: you'd better take a jacket.

Let's try the same interpretive exercise with grades. Let's say that a student, Otis, got an 87 on an assignment. Here are some plausible interpretations. In each, pay close attention to how you *feel* towards Otis.

- Otis, normally an A student, was feeling sick and didn't perform so well
- Otis, normally a C student, really studied hard and outperformed his usual scores
- Since the class average was 96.42, Otis fell well below his peers' performance
- Since the class average was 42.96, Otis did extremely well on this assignment
- Otis' paper was on top of the stack when the teacher began grading so evaluated it more strictly than later papers
- Otis' paper was on the bottom of the stack, and the teacher, being tired by this point, graded leniently
- The teacher had a mistake on the key used to score the assignment
- Otis has undiagnosed test anxiety disorder, which means he routinely scores below his potential
- This particular teacher really likes/dislikes Otis
- This is a particularly rigorous/unchallenging course, school, etc.
- etc., etc., etc.

I'm sure that many more different scenarios could be developed. Regardless, based on the number alone, without understanding the context it is nearly impossible to interpret. "But wait!" you say, "Wouldn't such difficulties in interpretation be alleviated if we had an average of all of Otis' scores for a whole semester?" Answer the question for yourself by imagining that instead of one assignment, Otis got an 87 for the semester, or a 2.96 GPA for his entire time in college. Can you not come up with an equally large number of plausible interpretations of such scores? The problem lies in a misapplication of statistical procedure. Misapplication of statistics results in ***the inability to make a reliably meaningful interpretation***.

What is different about the average temperature example and the average grade example is the ***source*** of the underlying data used to calculate the statistic. Average temperature is based on ***quantitative*** data whereas grades are based on ***qualitative*** data. "But," you ask,"isn't an 87, or a 2.96, a number? Don't numbers represent quantity by their very nature?" Nope. In the case of grades, an 87 is *higher* than an 86 and *lower* than an 88, but these are just indicators of *relative quality*.

I'll illustrate this more clearly with another example. Take the scale below that might be commonly be seen on a customer satisfaction survey in response to a question, such as, "How satisfied were you with your server, today?"

extremely dissatisfied	dissatisfied	neither satisfied nor dissatisfied	satisfied	extremely satisfied

Now it's clear that "satisfied" is a higher ranking than "dissatisfied," and while it's clearly possible (and actually common) to assign each of these rankings a number, say from 0 to 4, does a ranking of 4 (extremely satisfied) really mean that a customer is "*twice as satisfied*" as one that gave the server a 2 (neither satisfied nor dissatisfied). Is a customer who gave the server a 3 *three times as satisfied* as a customer who gave the same server a 1? I don't think so. And even if this were the case, how would we make a meaningful interpretation of these values? Can you not come up with a nearly endless list of reasons as to why a particular server/customer interaction might have yielded those scores? Getting back to grades, is a score of 80 twice as good as a 40? Is 100 twice as good as 50? 60 twice as good as 30? A 4.0 twice as good as 2.0? Did the person who scored the higher score learn twice as much? Not likely. And it's because **grades don't represent *quantity* but *quality***.

We could dive more deeply into the source of the 87, but hopefully the point is made. Consult a textbook on statistical analysis and it will tell you that ***the arithmetic mean is not applicable to analysis of qualitative data*** (except in very specific circumstances which are not really relevant and beyond the scope of this essay). Grades are clearly qualitative, not quantitative, and therefore should not be analyzed with averages lest they be susceptible to misinterpretation.

Incidentally, I find it painfully ironic that nearly all statistics class grades are determined using averages. You should note that in ISAT, Dr. Radziwill does NOT do this. She uses a points accumulation system, and in fact, the points accumulation system in this class is patterned after hers.

In case you're interested, there's a really fascinating 2000 paper by Vickers that shows that because of the inconsistencies in GPA calculations across different institutions, it is logically impossible to rank students using GPA. But let's move on.

The Motivational Argument

On the surface, grades would appear to motivate people to study harder, and as such, be a good thing. Grades' power to motivate students is undeniable and real. This power is the main reason that I've decided this semester to re-introduce grading in the form of the points accumulation system. However, the problem lies not in *whether* grades motivate or not, but *how*.

Alfie Kohn, in his book Punished By Rewards, articulates five ways in which grades are harmful (paraphrased):

1. Grades punish
2. Grades ignore reasons
3. Grades rupture relationships
4. Grades discourage risk-taking
5. Grades undermine motivation

Grades punish because in order to have “winners” you have to have “losers.” Teachers create tests and assignments intentionally at a level where they know that some portion of their students will be unsuccessful. Let me come to teachers’ defense and argue that the reason they create tests that they know some students will fail is not because they are sadistic or enjoy seeing some people fail. Rather, they have to teach a lot of students with varying levels of ability, and different life circumstances. They pitch to the middle intentionally so that hopefully the higher performing students won’t be completely bored, and the lower performing students won’t be hopelessly lost. Teachers are trapped in an industrial revolution mentality educational system just like everyone else. Regardless of the reason, the students forced to endure these tests can’t help but feel in many cases that they are being punished.

Grades ignore reasons. For example, many teachers have an attendance policy. If a student misses a class, or many classes, the reason becomes unimportant (“I’ve got too many students to review all of the individual reasons and excuses why you can’t bother to show up!”). There’s a policy in place. It was communicated clearly on the syllabus. If you don’t show up and don’t have a doctor’s note, that’s not my problem. How does this make students feel? It can’t feel good to be treated as just another name on a roster. The grading policy in this case, allows us to shield ourselves from the effort it might otherwise require us to track a student down and find out if they are okay. Grades enable teachers to ignore the idiosyncrasies and individuality of the people in our care. I know. I’ve been one of those teachers.

Grades rupture relationships. This one is mostly about power. It is very difficult for two people to have a genuine friendship when one has power over the other one. In the classroom, I have sole power to decide your grade. The US Supreme Court has actually ruled that a professor can be fired for disobeying the university if he or she refuses to change a grade. But even after being fired, the university can’t change the grade. In the classroom, to the extent that you care about grades, I am your god. I can make you do anything I want to. While the vast majority of professors wield this power responsibly, tales of sexual or monetary exploitation are not unheard of, and even in the best of circumstances it’s still difficult to be “friends” with your professor. How can you say what you really think to a person who might dock your grade for it? The power dynamics are the primary source of cheating and other academic dishonesty. Take away the grade and there’s really no reason for teachers and students to lie to one another.

Grades discourage risk-taking. Have you ever heard anyone ask “Will this be on the test?” Have you ever hounded an instructor to find out exactly how many pages, what font size, how many inch margins the paper has to be to not get docked points? Have you ever failed to speak your mind for fear of angering the professor? Have you heard a teammate argue that your team should do take the easy and safe option for the group project? “Let’s just get it done and out of the way.” On the contrary, have you ever wanted to take on a more ambitious project, but not done it for fear you’ll fail? Our grading system is inadvertently socializing our young people to be docile, compliant followers of orders. It’s ironic given that many, if not most, of our society’s heroes are people who took risks, faced big challenges and succeeded. We don’t often acknowledge how many times they had to fail to get there. Classrooms should be the safe place to fail. The classroom is the environment where the impacts of failure can be contained. We should be encouraging students to swing for the fence, to shoot for the moon, to go big, and if you’re going to fail, fail hard and know that we’re here to catch you. Not gonna happen though. You might get a bad grade.

Grades undermine motivation. This is the fifth and most insidious of the motivational arguments against grades. The basic idea here is that because we emphasize grades so much, learning becomes a secondary or nonexistent concern. How many tests have you crammed for, only to forget everything the next day? If you really cared about learning, wouldn’t you have studied in a way that would more likely promote long-term retention? How many times have you finished a particularly grueling class and walked out of the final thinking, “I’m so glad I’ll never have to study that again!” If the method of our teaching makes students LESS excited about learning, then we, as teachers, are failing utterly. As it turns out, this is exactly what we’re doing. I’ll let you read the paper for yourself, but a meta-analysis of hundreds of studies showed that even when they get the maximum reward, i.e. an A, student motivation to remain engaged with the content *decreases*! For students who got less than an A, the effect on motivation was

devastating. As a teacher, why would I want to engage in a practice that I know will actually make students LESS excited about what I teach???

Other Arguments

I'm far from exhausting the arguments against grading–like I said, I could write a book–but I think you get the point. I'll just briefly touch a couple more. For example, work in positive psychology shows that the stress induced by grades actually interferes with your cognitive abilities and makes you less able to grasp concepts globally and to see patterns and connections between related ideas. From a historical perspective, there were great debates about grades in the 19th century which just kind of died out as people gave up and decided that grades were a just a necessary evil. Now it's hard to believe there was a time when they didn't exist. Studying the field of psychometrics will destroy your hope that anyone could ever construct a valid multiple choice question. There's a lot more that could be said about everything that I've said so far, and more that I haven't even covered yet.

Enter Choose-Your-Own-Grade

So this is why I developed the choose-your-own-grade approach:

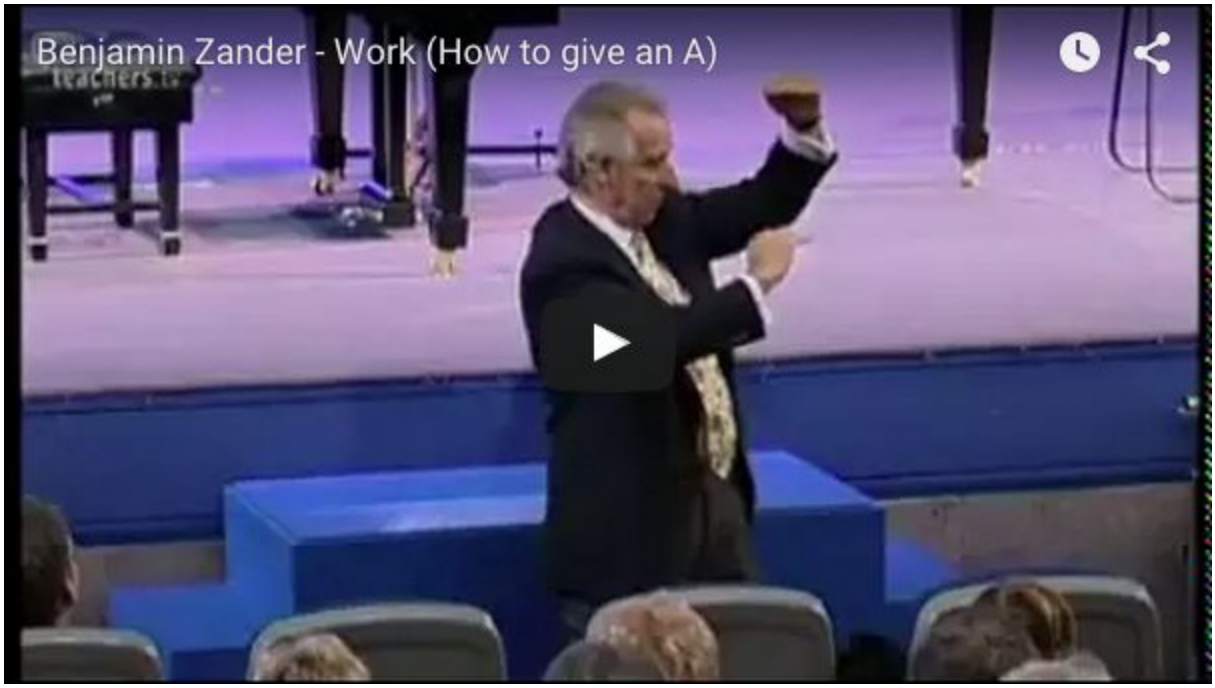
- Grades have no meaning to me, and I have no clue how to assign one (and feel good about it).
- I don't want to create a reason for students to be dishonest with me, especially when I'm in control of the environment, and I don't have to set it up that way.
- I don't want to create an environment that hampers creativity and risk-taking.
- I don't want to make anyone feel inferior just because programming doesn't happen to be one of their gifts, especially since most people in my class don't really have much choice about whether to be there or not.
- I'm not your boss. You're not my employees. (If anything, your tuition pays my salary, so you're my boss.) If you trust that I have your best interests at heart, and are willing to follow my guidance, I'm humbled and grateful.
- I don't want artificial elements like grades to stand in the way of you falling in love with something new.

Here's what I do want:

- To make friends and touch lives.
- To share the things that I'm passionate about.
- To create a safe, lively, compassionate space for people to try new things.
- To give people a chance to fail spectacularly and exclaim, "That's fantastic!"

And the subversive part of me wants you to have that experience in my class, and for it to change the way you see EVERY class, and for you to go out and challenge others to really grab hold of the opportunity you have here at JMU and make the most of it.

Don’t take yourself so seriously. I don’t. Life is a lot of fun that way.
I like what Ben Zander has to say:



The One Rule

There is only one requirement with choose-your-own-grade. You have to come meet with me face-to-face at the end of the semester and tell me what grade you’d like me to report to the registrar. Maybe some of you will take Ben Zander’s advice and sit down right now and write me the letter: “Morgan, I earned my A because….”

Important Dates & Deadlines

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

- Tuesday, September 8th: Last day of add/drop
- Thursday, September 17th: Last day to add a class with Department Head signature
- Friday, September 18th: 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.

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-sufficent 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!

Schedule & Flow

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 labs 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

The schedule for the course will roughly follow the timeline of the semester project.

Week	What the Class is Doing	What You should be Doing
1	Forming teams; Learning git; Ramping up	Dreaming about projects; Setting semester goals
2	Evaluating problem statements; Shuffling teams; Assigning roles	Picking your role; Planning your lab schedule; Deciding how you want to be evaluated
3	Social Context Analysis; Writing Scenarios; Drawing Mockups	Beefing up basic skills; Learning programming/database skills
4	Deciding architecture; Functional specs; Test specs	Continue skills development; Figuring out your niche on your team
5	Building out app environments; Installing core files	Continued skills development e.g. PHP/JS/DB/etc.
6	Creating failing tests	Getting familiar with your MVC framework
7-12	Coding testing and documenting the project	Doing labs to serve the team coding process
13	Finalizing code; Getting all tests passing	Wrapping up project coding
14	Deploying the project	Working on project deployment
15	Presenting the project	Working on the presentation

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