

Software Engineering – Spring 2017

Lecture 1

About The Course

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Mission

- Learn some real-world practices & tools

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- Learn software engineering concepts
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- Create a commercial-grade software product
 - Make something useful on the web

Mission, Secondary

- Learn how to write technical proposals/papers
- Learn how to create presentations
- Examine some research in current software engineering
- Learn how to present results on the web
- Impress your friends

- Enjoy yourself!

Not In Scope

- Learning how to program computers
 - Get some Python skills
 - Get some web and small database skills
- General software development skills
- Fear of breaking things

General Approach

- We will be using industry documentation
 - Tutorials
 - Videos
 - Research Papers
- We will be learning how to use things
- Examples in GitHub, open source data
- Making something with the technology
- Examination, homework, etc.

Grading (Since you asked...)

- Weekly homework. Do this. 20%
- One midterm exam. 20%
- Class project. 40%
- Final exam. Open notes, etc. 20%

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- Plagiarism -100%

Policies – Plagiarism

- Plagiarism will not be tolerated.
- Read the Kent State University policy.
- Visit <http://www.plagiarism.org>

Realities – Plagiarism

- Plagiarism doesn't work.
- Plagiarism makes you seem desperate.
- Plagiarism can get you fired.
- Plagiarism usually makes me disagreeable.

Realities – Plagiarism

- ...but not always. Sometimes it's amusing.

“Specifically, it is vital that information be finished, right, and a la mode as for the outer world.”

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("a la mode" : served with ice cream on it)



Realities – Plagiarism

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Agreement – Plagiarism

- You will be required to sign an agreement regarding plagiarism.

If you violate the agreement, you will receive a failing grade in the class.

- It's that simple.

Policies – Missing Things

- Missing class is not good. If you miss a lecture or a lab exercise, you will have to get that information and experience somewhere.
- On weekly assignments, there are no makeups. Some grading is automated, and I will discuss the assignments the following week. Get them done.
- On other assignments, except the final, if you are having trouble with a date, see me.

Policies – Class Conduct

- The usual rules about adult behavior apply.
- Kent is serious about academic honesty.
- Keep the laptop and phone distraction to a minimum when we're doing things together.
- I have no problem with snacks and drinks, and I will check on Kent's rules. This is a nice room, and was just remodeled, so keep it clean.
- If you need to leave between breaks, be discreet, please.

Policies – Extremes

- If something unusual is happening at the university, we might not have class if the university is closed.
- If something unusual happens to me, and I'm not here by 7:15, we won't have class.
- If either one of these happens, adjusted homework and lecture notes will be posted on Blackboard within 24 hours. *You will still be responsible for getting assignments done.*

Skills you will need

- Programming basics
 - How to use an IDE, how to debug
 - Basic language skills
 - SQL
 - Python
 - Javascript
- Know your way around a Linux command line
- Some idea of how the web works
- Know how to use Git
- Some way to write scientific English

Stuff you need to get

- A Chrome Browser
 - On any OS
 - On a Chromebook or Chromebox
- A solid web connection
- Accounts on
 - GitHub
 - PythonAnywhere.com (About \$5/mo)

Stuff you need to read

- Downloadable/Web industry documentation
- Open source books as assigned
- Various system documentation
- On-line articles and industry commentary
- Research papers regarding engineering
- You can learn from the original sources.

Online Services

- PAAS – PythonAnywhere.com
 - Hardened Unix Server
 - Production Web Capabilities
 - General purpose Python computation
 - Teacher – select “drdelozier” as your teacher

Source Control

- GitHub
 - www.github.com
 - Get an account!
- Class content will be posted there.
 - www.github.com/gregdelozier/software_engineering_class
 - .../lectures/<slides go here>
 - .../data/<datasets go here>
 - .../code/<various projects go here>
 - Clone this repo and use it.

Reading

- See these pages:
 - https://en.wikipedia.org/wiki/Software_engineering
 - http://en.wikipedia.org/wiki/Engineering_ethics
- And this page:
 - http://en.wikipedia.org/wiki/Waterfall_model
- And this document:
 - <https://www.it.uu.se/edu/course/homepage/acsd/vt08/SE1.pdf>

Office Hours

- I will be setting up online office hours.
- Time suggestions?
- Instructions will be sent out.