Introduction to CS 100
Overview of CS @ UK

CS 100
1 September 2015

Outline

- CS100: Structure and Expectations
- Context: Organization, mission, etc.
- BS in CS Degree Program
- Department Locations
- Our Faculty
- Miscellaneous

Where to Find Information

- http://dmn.netlab.uky.edu/~seales/cs100.html

Or, google "Brent Seales" and follow links to CS100 fall 2015

Or read your email (I will send email to the class list with links and information)

Key Items

- Syllabus
- Start Up Guide
- First Assignment

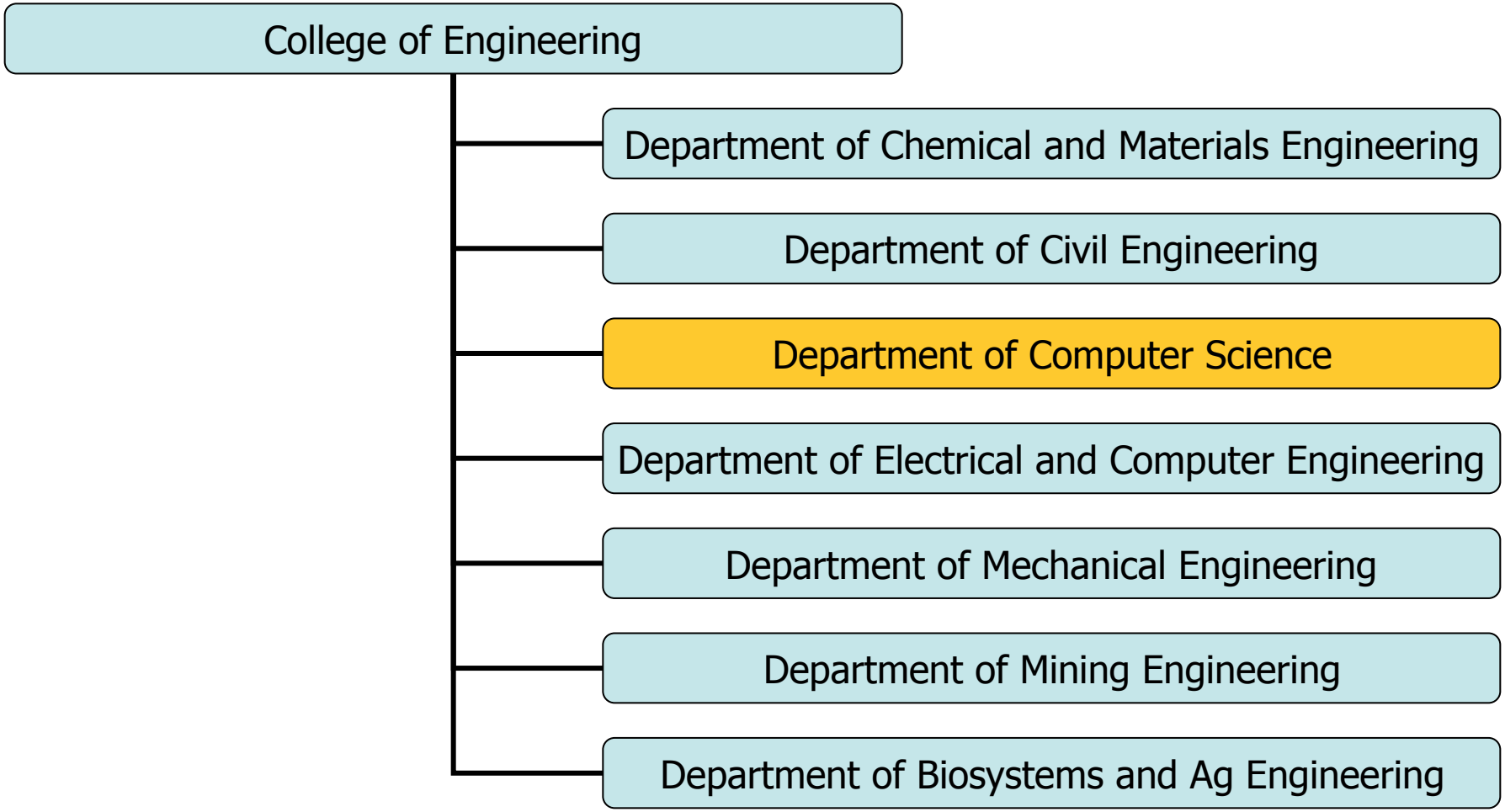
TurningPoint

- UK's system for collecting "clicks" from students
- You need to purchase and register a "clicker" for CS100

Summary: Action Items

- Get a TurningPoint clicker and register it
- Get the book (“Team Geek”)
- Locate the CS Department
- Locate my office
- Locate the class web page
- Complete Assignment 1 for next week!

UK College of Engineering



CS Department Mission

As the flagship computer science program in the Commonwealth of Kentucky, our mission is to:

1. Provide excellent undergraduate and graduate education in a state-of-the-art computing environment; preparing students for careers as computer scientists in industry, government, and academia;
2. Advance theoretical, experimental, and applied computer science through nationally and internationally recognized research by faculty and students; and
3. Support society by participating in and encouraging technology transfer.

BS in CS Program Objectives

- Graduates will be equipped to succeed in their chosen career path.

  Specifically, within 3–5 years after graduation:

  - Those employed in industry or entrepreneurial endeavors will demonstrate professional advancement through expanded leadership responsibility, significant technical accomplishment, or other recognition of their contributions.
  - Those who continue their formal education will achieve an advanced degree or other technical certification.
- Graduates will appreciate the preparation received in the program as it relates to their chosen careers, to their role as educated citizens in a global society, and to continued learning.

What Should You Get from your UG education?

- Understanding of general principles behind major computer science technologies and methodologies
  - Examples:
    - Procedural abstraction
    - Measures of algorithmic complexity
  - Test for whether a principle is worth teaching:
    Is its half-life > 10 years?
- Ability to think analytically
  - So you can learn and adapt to this rapidly changing area
  - [How] will we be programming in 30 years?
- Prepare for a career in business or industry
  - Working for yourself or for someone else
- Prepare for graduate school

CS Department Curriculum

- Introduction to field, overview careers: CS100
- Programming skills: CS115, CS215, CS216
- Foundations: Calculus, CS275, EE280
- Machine organization: CS/EE380
- Algorithms and data structures: CS315
- Theory of computing and logic: CS375
- Numerical methods/analysis: CS321
- Systems: CS470G
- 9 hrs of CS electives
- 12 hrs of technical electives
- Senior project CS 499

Curriculum: Technical & CS electives

- Possible strategies :
  - Broaden and/or deepen your knowledge of CS:
    - Databases: CS 405G
    - Intro to graphics, media, and imaging: CS 335
    - Networking: CS 471G
    - Compilers: CS 441G
    - Programming languages: CS 450G
    - Artificial intelligence: CS 463G
    - Advanced courses: CS 485, 505, 570, 571, 575, 537
  - Minor in Math
  - Double Major in Math
  - Minor in Business and Economics
  - Double Major in EE
  - Prepared for a graduate degree program
- Use your academic advisor!

CS Department Locations

James F. Hardymon
Some Faculty (2nd floor)

Davis Marksbury Building – Admin offices, some faculty
329 Rose Street

You Are Here (Chem-Phys)

CS Staff – Marksbury

Ms. Diane Mier – Administrative assistant

Ms. Kathy Ice-Wedding – Student Services

Ms. Dee Fuhs – Accounting

Mr. Paul Linton – System and Network Admin

Ms. Amy Long – Administrative assistant

CS Faculty

Prof. Ken Calvert

computer networks

Prof. Fuhua “Frank” Cheng

computer graphics, modeling

CS Faculty

Prof. Judy Goldsmith

artificial intelligence, theory of computing

Prof. Jerzy Jaromczyk

Director of Undergraduate Studies

computational geometry, algorithms, undergraduate research

Prof. Andy Klapper

cryptography

CS Faculty

Prof. Victor Marek

artificial intelligence, logic

Prof. Mirek Truszczynski

Director of Graduate Studies

artificial intelligence, logic

Prof. Greg Wasilkowski

numerical analysis

Prof. Jun Zhang

scientific computing

CS Faculty: Hardymon Building

Prof. Zongming Fei

networks

Prof. Raphael Finkel

operating systems, linguistics

Prof. Jim Griffioen

operating systems, networks

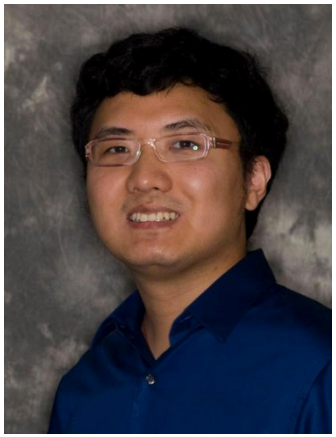
Prof. Jane Hayes

software engineering

CS Faculty: Hardymon Building

Prof. D. Manivannan
distributed systems,
OS, mobile computing

Prof. Jinze Liu
databases, data mining
bioinformatics



Prof. Qian Chen
networks, databases, big data

CS Faculty

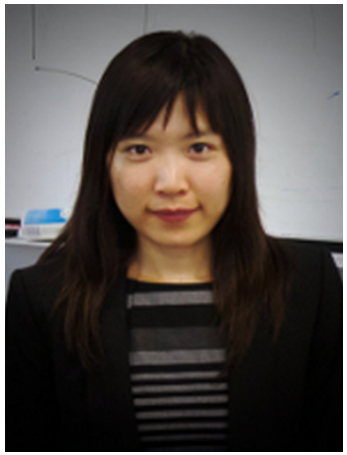
Prof. Brent Seales

Chair of Department
image processing,
digital media in humanities

Prof. Ruigang Yang

graphics,
computer vision,
image processing

CS Faculty



Prof. Tingting Yu

Software testing, program analysis, concurrent software systems, embedded systems

CS Faculty

Dr. Debby Keen

CS education

Mr. Paul Piwowarski

CS education

Dr. Yi Pike

CS Education

Student Organizations/Activities

- Association for Computing Machinery (ACM) Student chapter
  - Contact: Ethan Gill (esgi226@g.uky.edu)
- Upsilon Pi Epsilon (UPE)
  - First and only international honor society in the Computing discipline
  - Contact Dr. Jaromczyk (jurek@cs.uky.edu)
- Society of Women Engineers (SWE)

- Solar Car Team

Facilities

- Marskbury collaborative space
- eStudio (RGAN)
- Wethington Library
- RGAN Commons + new sandwich shop
- Living and Learning Communities: Woodland Glenn III
- The “Bowman Barn”, a.k.a. Student Center
- Starbucks
- Coffea