BRINGING COMPUTER SCIENCE PEDAGOGY TO DIGITAL HUMANITIES EDUCATION

PROF. DEENA ENGEL
DEPARTMENT OF COMPUTER SCIENCE
COURANT INSTITUTE OF MATHEMATICAL SCIENCES
NEW YORK UNIVERSITY
Computer Science & Technology Education

- Formerly seen as a branch of Mathematics Education.
- The Pedagogy of Computer Science has evolved into a field of its own.
Some examples of resources from computer science pedagogy studies

The “flipped” (or “inverted”) classroom model to optimize classroom teaching time and students’ independent learning.

**PBL** – Project-Based Learning model to render the many hours of coursework needed as relevant as possible to the students’ primary field(s) of interest.

**Inclusion**: There are rich resources available on teaching non-majors and non-engineers.

There are guides and studies on seeking **cultural and racial diversity** and minimizing **gender bias**.
Resources Available for Digital Humanities Education: ACM

ACM: Association for Computing Machinery

Digital Library: http://dl.acm.org/
Resources Available for Digital Humanities Education: SIGCSE

SIGCSE: Special Interest Group in Computer Science Education

http://sigcse.org/sigcse/

SIGCSE Annual Conference in March

https://sigcse2017.sigcse.org/
Resources Available for Digital Humanities Education: CSTA

Computer Science Teachers Association
https://www.csteachers.org/

Sample Diversity Study cited from CSTA:
http://home.cc.gatech.edu/ice-gt/556
Digital Humanities at NYU: Graduate Students in the Humanities

Program in Digital Humanities and Social Science
http://dhss.nyu.edu

The Advanced Certificate in Digital Humanities:
Begins: Fall, 2017 Semester
http://dhss.hosting.nyu.edu/advanced-certificate/

M.S. Degree in Digital Humanities and Social Science:
http://dhss.hosting.nyu.edu/ms-in-dh-and-ss/
Begins: Fall, 2018 Semester
Digital Humanities at NYU: Graduate Students in the Humanities

Required courses in the Computer Science Department towards the Advanced Certificate in Digital Humanities:

CSCI-GA.1120 Introduction to Programming
CSCI-GA.1121 Working with Data
CSCI-GA.1122 Web Development

Plus two Humanities or Digital Humanities electives from the Graduate School of Arts and Science Bulletin.
Digital Humanities at NYU: Graduate Students in the Humanities

*M.S. Degree in Digital Humanities & Social Science* required courses:

- CSCI-GA.1120 Introduction to Programming
- CSCI-GA.1121 Working with Data
- CSCI-GA.1122 Web Development
- CSCI-GA.1123 Programming Applications
- DHSS-GA.1100 Statistics: Understanding and Using Data
- DHSS-GA 2000 Capstone Project Seminar

*Plus three electives from the Graduate School of Arts and Science Bulletin.*
Digital Humanities at NYU: Undergraduate Students in CS

_CSCI-UA.380-1 Computing in the Humanities and the Arts_

Pre-requisites:

- At least one semester of a high-level programming language (Python, Java, or C++) and
- At least one semester of web development (HTML5, CSS3, and jQuery).

Taught by Computer Science faculty. Guest Lectures by Humanities faculty.

All assignments are project-based.

Questions? Please email:

Prof Deena Engel
Department of Computer Science
Courant Institute of Mathematical Sciences
New York University
deena.engel@nyu.edu