A FIRST LOOK AT THE ACM/IEEE-CS/AAAI COMPUTER SCIENCE CURRICULA (CS202X)

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ACM Co-Chair

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- Eric Eaton, University of Pennsylvania, USA
- Susan L. Epstein, Hunter College and The Graduate Center of The City University of New York, USA
COMMUNITY PARTICIPATION

Subcommittee for each Knowledge Area
- 46 Non-Steering Committee members
- 20 Industry members

You are invited to participate:
- Provide feedback - on ongoing drafts
- Provide suggestions - to guide future drafts
- Volunteer - to serve on one of the subcommittees

csed.acm.org
SURVEYS

• Academic Survey
  • US - 143 respondents to date
  • Global - 177 respondents to date
    • Brazil
    • China
    • Europe
    • India
    • Ireland

• Industry Survey – 800+ respondents to date
  • Has been distributed
  • If interested, please contact us
VISION STATEMENT

- Knowledge model
- Competency model
  - Consistency between the two
- Online version
- Companion volume – State of the practice
KNOWLEDGE MODEL

- Knowledge Areas
- Illustrative Learning Outcomes
  - No CS2013 skill level [Familiarity/Usage/Assessment]
  - Emphasis on higher level skills
  - Interdisciplinary outcomes
- Core Hours
KNOWLEDGE AREAS - 1

- AL - Algorithms and Complexity
- AR - **Architecture and Organization**
- CN - Computational Science → **Modeling**
- DS - Discrete Structures → Mathematical Foundations
- GV - Graphics and Visualization → **Graphics and Interactive Techniques**
- HCI - Human-Computer Interaction
KNOWLEDGE AREAS - 2

- IAS - Information Assurance and Security → Security
- IM - Information Management → Data Management
- IS - Intelligent Systems → Artificial Intelligence
- NC - Networking and Communication
- OS - Operating Systems
- PD - Parallel and Distributed Computing
KNOWLEDGE AREAS - 3

- PBD - Platform-Based Development → Specialized Platform Development
- PL - Programming Languages
- SP - Social Issues and Professional Practice → Society, Ethics and Professionalism
- SDF - Software Development Fundamentals
- SE - Software Engineering
- SF - Systems Fundamentals
CORE HOURS

- CS2013 Core Tier I
  - 165 hours
- CS2013 Core Tier II
  - 143 hours – 80% coverage adequate

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- CS202X CS Core: every CS graduates must know
- CS202X KA Core: any coverage of the Knowledge Area must include

280 hours (CC2001) → 290 (CS2008) → max 308 (CS2013)
COMPETENCY MODEL

- Competency = Knowledge + Skills + Dispositions
- Dispositions:
  - *Cultivated behaviors desirable in the workplace*
  - Identified for each Knowledge Area
  - Disaggregated
COMPANION VOLUME

- Peer-reviewed articles
  - Not position papers
- Program design and delivery issues
  - Social, professional, ethical, practical, geographical, and philosophical considerations
- What would you like to see covered (csed.acm.org)?
  - Topics
  - Contributors
WE INVITE YOUR PARTICIPATION

- Contest on Characteristics of CS Graduates
  - contest@volunteer.acm.org
- Topics for Companion Volume
- Web site for feedback: csed.acm.org
  - Feedback, suggestions
  - Volunteer to contribute
    - Feedback form, Email address for each Knowledge Area