Undergraduate Research
Why’s and How’s

CS1000 - Explorations in Computer Science

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Outline

Overview

Two undergraduate research programs
  Michigan Tech SURF
  NSF REU site
Benefits of undergraduate research

- World and nation
  - global competitiveness
  - innovation and discovery

- University, department, and faculty
  - offer high quality programs
  - attract and retain good students

- Student
  - preparation for STEM (Science, Technology, Engineering, and Mathematics) careers
  - increased understanding, confidence, and awareness of the field, and the research process
How does undergraduate research run?

- **During the academic year**
  - work, class, or both
  - may be tied to external funding

- **In summer**
  - paid, full-time work
    - funded externally or by the university
  - workstyle and expectations vary
  - 1 undergraduate student or team of up to 10
  - 7-14 weeks
    - the summer semester is typically 14 weeks including finals
Michigan Tech’s SURF program

- SURF: Summer Undergraduate Research Fellowship
- Fellowship recipients conduct a research project under the guidance of a Michigan Tech faculty mentor
- Fellowship award of up to $4,000.
- 7-14 weeks during the summer semester
- Open to all Tech undergraduates who have at least one semester remaining after the summer
- Applications due: January 29, 2016 at 4:00pm
- Funded and run by Michigan Tech
NSF REU site program

- NSF REU: National Science Foundation Research Experience for Undergraduates
- Fellowship recipients conduct a research project under the guidance of a faculty member at a host institution
- Fellowship covers travel and living expenses, and $500 per week stipend
- 8-10 weeks during the summer semester
- Group of 7-10 students
- Must be US citizen, national, or permanent resident
- Funded by NSF and run by the host institution
Sources for the slides (website last access: November 1, 2015)

- REU-IN-A-BOX: Expanding the Pool of Computing Researchers. Patricia Morreale, Kean University; Margaret Burnett, Oregon State University; Ann Gates, University of Texas El Paso; Jose Cossa, University of Texas; and Nancy Amato, Texas A&M University. www.ncwit.edu/reubox

- Summer Undergraduate Research Fellowship (SURF). http://www.mtu.edu/research/administration/vpr-office/internal-awards/surf/

  http://www.nsf.gov/crssprgm/reu/