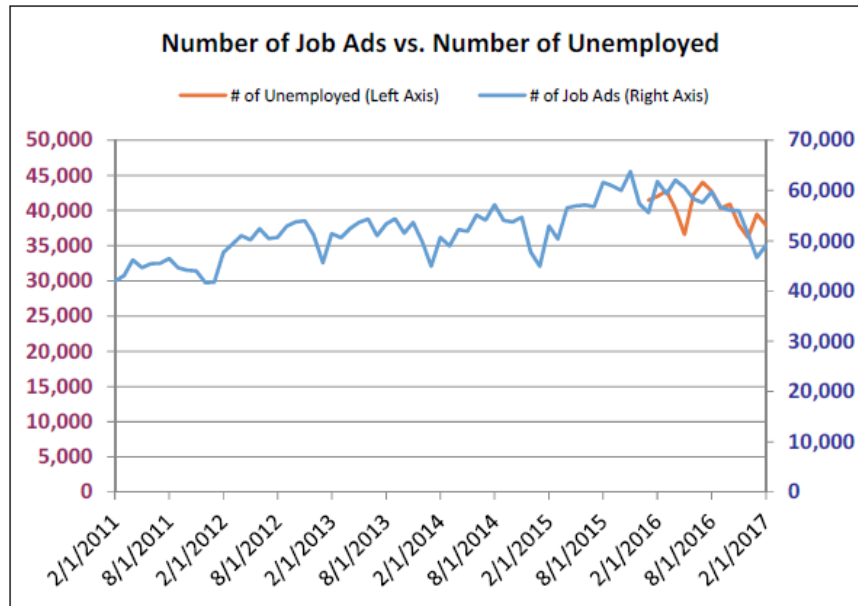# Major in Web Design and Engineering

Major in Web Design and Engineering

- Students may choose to major in Web Design and Engineering.
- They take courses in the following categories:
  - Web Design and Engineering
  - Arts, Humanities and Social Sciences
  - Mathematics and Natural Sciences
  - Educational Enrichment Electives

Recent Job Ads for San Jose, Sunnyvale, Santa Clara, MSA – Feb 2017

Number of Job Ads vs. Number of Unemployed

— # of Unemployed (Left Axis)　　— # of Job Ads (Right Axis)

Employers with Most Job Ads

Apple Inc. - 2040

Stanford University - 1386

Amazon - 1144

Cisco - 1043

Google - 980

Robert Half International - 853

Stanford Healthcare - 679

Intel - 565

Randstad - 446

VMware - 388

Occupations with Most Job Ads

Software Developers, Applications - 5306

Marketing Managers - 1580

Web Developers - 1532

Registered Nurses - 1474

Network and Computer Systems Administrators - 1279

Software Developers, Systems Software - 1127

Information Technology Project Managers - 976

Software Quality Assurance Engineers and Testers - 959

Computer Systems Analysts - 914

Industrial Engineers - 876

Computing areas

Best Jobs in America

CNN Money: Best Jobs in Fast-Growth Fields 2016:

1. **Mobile app developer**
2. Risk management director
3. Landman
4. Product analyst
5. Info insurance analyst

6. QA coordinator
7. Clinical applications specialist
8. Hospital administrator
9. **Database analyst**
10. Director, finance & adminstration

Two out of top 10 are in Computing!

Mobile app developer:
Median pay: $97,000
Top pay: $133,000
10-year job growth: 19%

Database analyst
Median pay: $70,100
Top pay: $101,000
10-year job growth: 11%

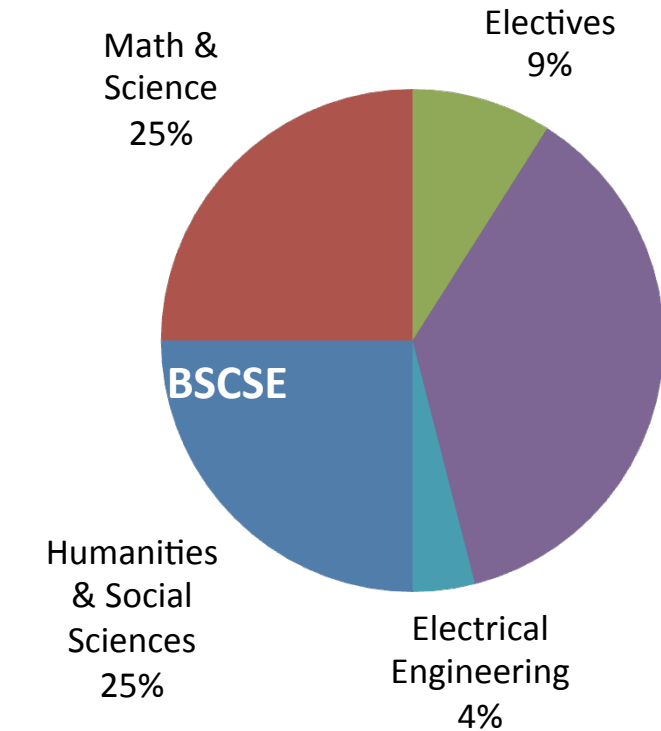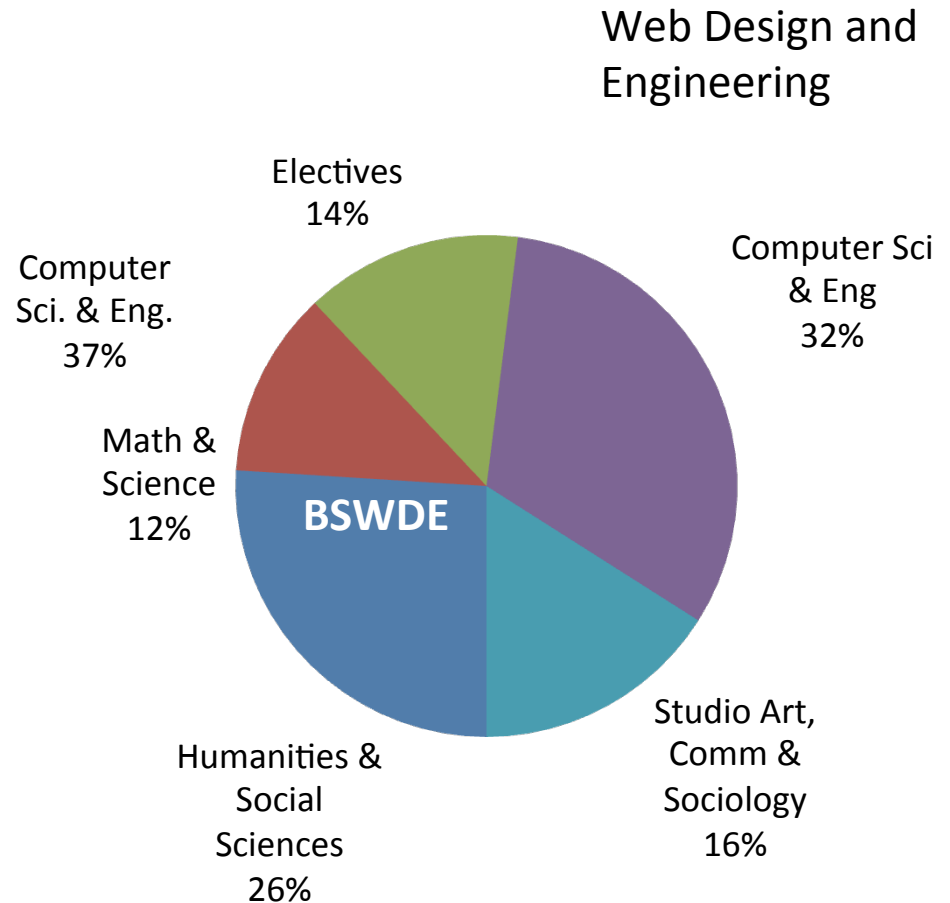Source: http://money.cnn.com/pf/best-jobs/

Programs

- Four-year B.S. degree programs
  - Web Design and Engineering (31)
  - Options for study abroad or co-op
  - Major courses start in freshman/sophomore year
  - Students with AP units could complete in less than 4 years
- Five-year combined B.S. – M.S. program
- Strong practical flavor
  - Extensive lab-based courses
  - Senior design capstone projects

Our Two Programs

BSCSE

Math & Science 25%

Electives 9%

Computer Sci. & Eng. 37%

Electrical Engineering 4%

Humanities & Social Sciences 25%

Computer Science and Engineering

BSWDE

Web Design and Engineering

Electives 14%

Computer Sci & Eng 32%

Math & Science 12%

Studio Art, Comm & Sociology 16%

Humanities & Social Sciences 26%

CSE Web Technologies Program

Students of Web technologies are required to take courses in

- **Web programming**
  - HTML, CSS, JavaScript, JQuery, PHP, MySQL, XML technologies
- **Web infrastructure**
  - Web protocols
- **Web Usability**
  - Designing effective and accessible web sites and web applications
- **Advanced Web Programming**
  - Ruby on Rails
  - Web Security

Capstone Design Project

- Year-Long Project in Senior Year
- Interdisciplinary Teams
- Formal Design Reviews
- Lectures on
  - Entrepreneurship
  - Intellectual property & patent application
  - Ethical and societal considerations
- Senior Design Conference

Computing for Social Benefit Student Organizations

Mobile Computing for Social Benefit

Active student organizations

– ACM, IEEE, and SWE chapters.

– Free ACM membership to new stude

– Grace Hopper conferences.

Source: S. Figueira

Recent Graduate School Admissions for Our Grads

- Carnegie Mellon
- Harvard
- Johns Hopkins
- U of Michigan
- Naval Post Graduate School
- Rensselaer
- Stanford
- UC Berkeley, Irvine, San Diego, Santa Cruz
- Santa Clara U
- U of Colorado, Boulder
- U North Carolina, Chapel Hill
- U of Pennsylvania
- Rice U
- U of Texas, Austin
- U of Washington
- Georgia Tech
- Virginia Tech