CSCI 245: Life, Computers, and Everything

What's in a Profession?

Profession

[noun] any type of work that needs special training or a particular skill, often one that is respected because it involves a **high level of education**.

[noun] the people who do a particular type of work, considered as a group.

the professions

› jobs that need special training and skill, such as being a doctor or lawyer, but not work in business or industry

Profession

A profession is something a little more than a job, it is a **career** for someone that wants to be part of society, who becomes competent in their chosen sector through training; maintains their skills through continuing professional development; and **commits to behaving ethically**, to protect the interests of the public.

Professional

1. Person formally certified by a professional body of belonging to a specific profession by virtue of having completed a required course of studies and/or practice. And whose competence can usually be measured against an established set of standards.

2. Person who has achieved an acclaimed level of proficiency in a calling or trade. See also professionalism.

Fully Developed Professions

- Initial professional education
- Accreditation
- Skills development
- Certification
- Licensing
- Professional development
- Professional society
- **Code of ethics**

Professional Codes of Conduct

American Medical Association

Engineering Council (UK)

National Society of Professional Engineers

Chartered Financial Analysts

…

Association for Computing Machinery

Advancing Computing as a Science & Profession

We see a world where computing helps solve tomorrow's problems – where we use our knowledge and skills to advance the profession and make a positive impact.

- Founded as the Eastern Association for Computing Machinery at a meeting at Columbia University in New York on September 15, 1947.

- In January 1948, the word "Eastern" was dropped from the name of the Association. In September 1949, a constitution was instituted by membership approval.

Why join a professional society?

The ACM in particular:

https://www.youtube.com/watch?v=BHIbT0e7LTc

The ACM Code of Ethics and Professional Conduct

Adopted by the ACM Council 06/22/2018

https://ethics.acm.org

1. General Ethical Principles

1.1 Contribute to society and human well-being.

1.2 Avoid harm to others.

1.3 Be honest and trustworthy.

1.4 Be fair and take action not to discriminate.

1.5 Honor property rights including copyrights and patent.

1.6 Give proper credit for intellectual property.

1.7 Respect the privacy of others.

1.8 Honor confidentiality.

1. General Ethical Principles

1.1 Contribute to society and to human well-being, acknowledging that all people are stakeholders in computing.

1. General Ethical Principles

1.2 Avoid harm.

1. General Ethical Principles

1.3 Be honest and trustworthy.

1. General Ethical Principles

1.4 Be fair and take action not to discriminate.

1. General Ethical Principles

1.5 Respect the work required to produce new ideas, inventions, creative works, and computing artifacts.

1. General Ethical Principles

1.6 Respect privacy.

1. General Ethical Principles

1.7 Honor confidentiality.

2. Professional Responsibilities

A computing professional should…

2.1 Strive to achieve high quality in both the processes and products of professional work.

2.2 Maintain high standards of professional competence, conduct, and ethical practice.

2.3 Know and respect existing rules pertaining to professional work.

2. Professional Responsibilities

2.4 Accept and provide appropriate professional review.

2.5 Give comprehensive and thorough evaluations of computer systems and their impacts, including analysis of possible risks.

2.6 Perform work only in areas of competence.

2. Professional Responsibilities

2.7 Foster public awareness and understanding of computing, related technologies, and their consequences.

2.8 Access computing and communication resources only when authorized or when compelled by the public good.

2.9 Design and implement systems that are robustly and usably secure.

3. Professional Leadership Principles

A computing professional, especially one acting as a leader, should…

3.1 Ensure that the public good is the central concern during all professional computing work.

3.2 Articulate, encourage acceptance of, and evaluate fulfillment of social responsibilities by members of the organization or group.

3. Professional Leadership Principles

3.3 Manage personnel and resources to enhance the quality of working life.

3.4 Articulate, apply, and support policies and processes that reflect the principles of the Code.

3.5 Create opportunities for members of the organization or group to grow as professionals.

3. Professional Leadership Principles

3.6 Use care when modifying or retiring systems.

3.7 Recognize and take special care of systems that become integrated into the infrastructure of society.

4. Compliance With The Code

A computing professional should…

4.1 Uphold, promote, and respect the principles of the Code.

4.2 Treat violations of the Code as inconsistent with membership in the ACM.