Tutorial notes:
Ethics and Professionalism

→ **Professional Conduct**
- ACM/IEEE code of Ethics

→ **Intellectual Property**
- Copyright laws
- When to seek permission to use information

→ **Case studies…**
- Discuss the ethics - what would you do in these situations?

Professionalism

→ **What are the responsibilities of the systems analyst?**
- Uphold the law
- Behave in an honest and ethical manner

→ **Areas of concern:**
- Confidentiality
  - respect confidentiality of employers and clients irrespective of whether or not a formal confidentiality agreement has been signed.
- Competence
  - do not misrepresent your level of competence.
  - do not knowingly accept work which demands skills beyond your competence.
- Intellectual property rights
  - be aware of local laws governing use of intellectual property (patents, copyright)
  - ensure that the intellectual property of employers and clients is protected.
- Computer misuse
  - do not use your technical skills to misuse other people's computers
  - computer misuse ranges from relatively trivial (e.g. game playing on an employer's machine) to extremely serious (dissemination of viruses).

ACM/IEEE code of ethics

For full version, see:
http://www.acm.org/serving/se/code.htm

1. **PUBLIC**
   - Software engineers shall act consistently with the public interest.

2. **CLIENT AND EMPLOYER**
   - Software engineers shall act in a manner that is in the best interests of their client and employer, consistent with the public interest.

3. **PRODUCT**
   - Software engineers shall ensure that their products and related modifications meet the highest professional standards possible.

4. **JUDGEMENT**
   - Software engineers shall maintain integrity and independence in their professional judgment.

5. **MANAGEMENT**
   - Software engineering managers and leaders shall subscribe to and promote an ethical approach to the management of software development and maintenance.

6. **PROFESSION**
   - Software engineers shall advance the integrity and reputation of the profession consistent with the public interest.

7. **COLLEAGUES**
   - Software engineers shall be fair to and supportive of their colleagues.

8. **SELF**
   - Software engineers shall participate in lifelong learning regarding the practice of their profession and shall promote an ethical approach to the practice of the profession.

Copyright Law

→ **All information is subject to copyright law**
- copyright protection arises as soon as original work is fixed in a "tangible medium"
  - Lack of an explicit copyright notice is irrelevant!

→ **The internet and the web don't negate copyright law**
- The web and the internet makes it easier to violate these protections:
  - many people equate "available on the web" as "in the public domain".
  - …in general this is wrong!
- You need permission of the copyright owner to make copies of original work
  - Includes putting copies on your own website.
  - Note: a webmaster for a site is rarely copyright owner for content at that site

Useful rules

→ **The doctrine of "Fair use"**
- A small amount of copying without permission is okay, if it:
  - Is only used for education, review, etc.
  - Only includes a small portion of the work (e.g up to 1 chapter of a book)
- Copying is not "fair use" if it diminishes the market for the item.

→ **The doctrine of "Implied Consent"**
- It is legal to *view* copyrighted material if it is on a publicly accessible website
  - Includes holding transient copies in your browser's cache
  - Does not include making further copies

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What is okay to use?

→ **Information for your report:**

	Okay	Get permission	Not okay
Copies of documents you have collected?		✓	
Diagrams, tables, from other people's work?		✓	
Short quotations (e.g. a few sentences)?		✓	
Long quotations (e.g. a few paragraphs/pages)?	✓		
Photographs or images collected from the web?		✓	
Photographs of other people that you have taken yourself?		✓	
Transcripts of interviews, conversations, etc.		✓	
Summaries of questionnaire data		✓	

→ **Putting Information on the web:**

	Okay	Get permission	Not okay
Links to material on other sites ("href" links)?		✓	
Local use of images from other sites ("img" links)?			
Links to main (home) pages of other sites?	✓		
Links to content deep inside other sites?		✓	
Framing (I.e. wrapping your frame around content from other sites)?	✓		
		✓	
			✓

Case Study I

Three years ago Diane started her own consulting business. She has been so successful that she now has several people working for her and many clients. Their consulting work includes advising on how to network microcomputers, designing database management systems, and advising about security.

Presently she is designing a database management system for the personnel office of a medium-sized company. Diane has involved the client in the design process, informing the CEO, the director of computing, and the director of personnel about the progress of the system. It is now time to make decisions about the kind and degree of security to build into the system. Diane has described several options to the client. Because the system is going to cost more than they planned, the client has decided to opt for a less secure system. She believes the information they will be storing is extremely sensitive. It will include performance evaluations, medical records for filing insurance claims, salaries, and so forth.

With weak security, employees working on microcomputers may be able to figure out ways to get access to this data, not to mention the possibilities for on-line access from hackers. Diane feels strongly that the system should be much more secure. She has tried to explain the risks, but the CEO, director of computing and director of personnel all agree that less security will do. What should she do? Should she refuse to build the system as they request?

Retrieved Oct 1, 2002 from the World Wide Web:
http://onlineethics.org/privacy/scene3.html

Case Study II

You have been asked to observe how junior management use new accounting software at a leading city accountancy firm. As part of informed consent, staff are informed that they will remain anonymous. As part of your observations, you notice that many of the junior management staff are making a particular data entry error when using this software. These errors are causing the accountancy firm to lose profit. Company policy states clearly that workers salaries will be docked for clear mistakes leading to loss of company profit.

Questions:

- Would you alter the results of your study to protect the people who helped you in the study?
- How can you report results without causing harm to the participants?
- Would you cancel the study as soon as this conflict of interest is detected?

Retrieved Oct 1, 2002 from the World Wide Web:
http://www.sims.berkeley.edu/courses/is214/s01/notes.htm
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