# 1 Chapter 1

- Jurisdiction: area covered by a single legal system and set of laws.
- Civil Law: rules for settling disputes between people (legal persons).
- Criminal Law: set of mechanisms that tries to punish wrongdoers, by fines or imprisonment. It can be considered to represent society's view of the minimum standard of acceptable behaviour. It defines what constitutes a crime, lays down the mechanisms for deciding whether a person accused of a crime is guilty or innocent, and specifies the range of punishments applicable to different categories of crime.
- Burden of Proof: prosecution must demonstrate that they are guilty beyond all reasonable doubt. Defendant assumed to be innocent by default.
- Standard of Proof: have to show that their claim is correct on the balance of probabilities.
- Statute Law: laid down by Acts of Parliament. It is often referred to as legislation. E.g. laws to regulate child labour and laws to prevent the misuse of computers. Increasingly, common law is being replaced by statute law.
- Common Law: traditional law that is not written down, but which depends on the judgement of judges over the centuries. When deciding the rights and wrongs of a case, a court will look at the way in which similar cases have been decided in the past; such cases are known as *precedents*. (USA, Commonwealth)

#### • Statute Lawmaking in the UK

- Bill: Initiation/Introduction of a legislation. Set of proposals parliament is invited to discuss, modify and approve.
  - \* House of Commons
  - \* House of Lords (after this, Act of Parliament)
  - \* The Queen (royal assent)
- Act: After the bill was approved by House of Commons and House of Lords. The queen
  cannot refuse to give royal assent. Acts of Parliament constitute what is known as primary
  legislation.
- Green Paper: Government may want to canvass opinion before creating a bill. Explains why the government wants to create new laws in a certain area and discusses a number of possible approaches. The green paper will be discussed by Parliament and comments on it will be invited from the public and from bodies that have an interest in the area (e.g. BCS).
- White Paper: describes the proposed legislation and will be used as the basis for discussing and possibly modifying the details of what is proposed. At the end of this process, the government will take into account these discussions and produce a bill.

# 2 Chapter 2

#### • The nature of a profession

- substantial education and training are required in order to practise the profession;
- the members of the profession themselves decide the nature of this training and, more generally, control entry to the profession;
- the profession is organized into one or more professional bodies;
- the profession lays down standards of conduct with which its members must comply and, where necessary, enforces these through disciplinary procedures.
- **Professional Bodies**: group of people coming together because of a shared interest in a particular type of activity.
  - code of conduct to regulate the way members of the body behave in their professional lives and a disciplinary procedure to discipline members who breach this code;
  - establishing mechanisms for disseminating knowledge of good practice and new developments to its members, typically through publications and conferences but increasingly also through the use of the internet;

- setting standards of education and experience that must be met by people wishing to become members of the body;
- advising government and regulatory bodies about matters within its area of expertise.
- Reservation of title: use of the name of the profession may be restricted to those people who are appropriately qualified.
- Reservation of function: certain activities are restricted to people with appropriate qualifications
- Software Development as engineering:
  - designing and building things that must work properly, that is, must meet a set of predetermined requirements concerning their functionality, their performance, and their reliability;
  - the process of designing and building the object must be completed within specified constraints of time and budget.

#### • The Status of Engineers

- USA: extreme form of regulation; some states forbid software engineering
- UK: anyone can be an engineer and do engineering

### • International Recognition of Engineering Qualifications

- EU: if you're qualified to practise your profession in one country of the EU, you are qualified
  to practise it in any country of the EU.
- Washington Accord: Australia, Canada, Ireland, New Zealand, the UK and the USA decided that the standards and procedures are similar enough for them to recognise degrees from others.

#### • Compulsory Registration of Software Engineers

- Not realistic in UK impossible to enforce; software development could go underground
- Implementation of critical software should be under the control of a registered software engineer.

Critical system - system whose failure could result in physical injury or death.

# 3 Chapter 3

## • The development of Professional Bodies

- USA first with IEEE-CS and then ACM
- UK follows with BCS, equivalent to ACM and its own IEE

#### 3.0.1 Professional Conduct

- Code of Conduct: standards of behaviour that members of the body are expected to follow in their professional life
  - Public Interest
    - \* carry out pro duties with care and diligence;
    - \* point out consequences if their opinion is ignored.
  - Duty to Relevant Authority (employer/school/client)
    - \* avoid conflicts of interest: husband/wife contract;
    - $\ast$  avoid misrepresentation: lie about competencies;
    - $\ast$  avoid passing confidential stuff without permission.
  - Duty to Profession
    - \* what is expected of members to uphold the reputation and good standing of the profession
  - Professional Competence and Integrity
    - \* keep their professional skills up to date;
    - $\ast$  encourage those who work for them to do the same;
    - $\ast\,$  follow appropriate codes of practice and other standards;
    - \* not to claim to be competent in areas where they are not.
- Code of Practice: best way to practise your profession

#### 3.0.2 Education

- own system of professional examinations and grants approval to suitable organisations that provide courses to prepare students for them.
- accredits degree programmes offered by institutions of higher education.
- sets the syllabus for a range of vocational qualifications and accredits training organizations to provide the associated short courses.

## **Professional Examinations**

- Continuing Professional Development
- The advancement of Knowledge
- Membership Grades
- Official Advice