School of Mathematics

Course 362 — Computer Engineering 1998-99
(SS Mathematics)

Lecturer: Dr. J.B. Grimson, Professor J.G. Byrne and Dr. P. Cunningham (Computer Science)

Requirements/prerequisites: 372

Duration: 24 weeks

Number of lectures per week: 5 in Michaelmas term, 4 in Hilary term

Assessment: Course work

End-of-year Examination: One 3-hour examination

Description: The course is divided into three parts:

1. File organisation and database management
    - basic file organisation techniques including sequential, ISAM, VSAM, direct access, B-trees, inverted files, multi-lists
    - overview of database management including architecture of DBMS, concurrency control, recovery, security, integrity
    - introduction to relational DBMS using Oracle SQL, normalisation.
2. Formal language theory and denotational semantics with practical application to compiler construction.
3. LISP and an introduction to artificial intelligence.

June 10, 1998