

Title (Units): SCI7420 TECHNIQUES OF PRODUCTION OPERATIONS MANAGEMENT
(2,2,0)

Syllabus Reviewed by: Michael Ng

Prerequisite and Co-requisite: None

Objectives: This subject introduces students systematically to the range of activities involved in Production and Operations Management, mainly adopting quantitative approaches and the main quantitative and other analytical approaches used in Productions and Operations Management (and related areas).

Calendar Description: This subject introduces students systematically to the range of activities involved in Production and Operations Management, mainly adopting quantitative approaches.

References:

- 1). Principles of Quality Control, by J. Bank, Wiley, 1989.
- 2). Topics in Management Science, by R. Markland, John Wiley, 1993.
- 3). The Management of Operations, by J. R. Meredith, John Wiley & Sons, 1992, fourth edition.
- 4). Muhlemann, A.,Oakland, J. & Lockyer, K. Production and Operations Management, by K. Lockyer, A. Muhlemann, and J. Oakland, Pitman, 1988.
- 5). Production and Operations Management, by R. Wild, Cassell, 1995.
- 6). Essential of Production and Operations Management, by R. Wild, Cassell, 1992.

Assessment: Continuous assessment (20%) and Final examination (80%)

Subject Content in Outline:

I. Production (4 hours of teaching)

II. Plant and Facilities (6 hours of teaching)

- A. Location and Layout of facilities
- B. Techniques for the evaluation of location of facilities
- C. Techniques relevant to the layout of facilities

III.Planning and Control Issues (9 hours of teaching)

- A. Capacity management and planning
- B. Operations scheduling techniques
- C. Material requirements planning (MRP); manufacturing resources planning (MRPII)

IV. Manufacturing, Planning and control Systems (9 hours of teaching)

- A. MRPII continued
- B. Just-in-time approaches (JIT)
- C. Optimised production technology (OPT)
- D. Computer integrated manufacture (CIM)