Description: Integrated Logistics Management

Subject  Cat-nbr  Class  Term  Mode  Units  Campus
MGT      8021    40236  1, 2005  EXT  1.00    Toowoomba

Academic group: FOBUS
Academic org: FOB005
Student contribution band: 2
ASCED code: 080399

STAFFING
Examiner: Barrie Todhunter

RATIONALE
A new system will not achieve its full operational capability unless it has efficient, effective, through-life logistics support. Logistics management is the process by which a system to provide this logistics support is designed, implemented and operated. Because decisions made during the design, development, evaluation and acceptance of a new system can have considerable impact on logistic support requirements, it is important that operational and logistics aspects are integrated into project planning from an early stage. To ensure this happens large organizations like Defence are using the concept of Integrated Logistics Support (ILS) in the capital system acquisition process. This concept is based on a single authority being responsible for coordinating and integrating the complete logistics support arrangements.

SYNOPSIS
This course focuses on the management aspects of the design of logistics support systems for new products and capital equipment. It includes both the “military” approach to logistics through the Integrated Logistics Support (ILS) methodologies and the traditional "business" logistics areas of inventories, warehousing and transportation. The course emphasises the life-cycle approach to logistics support. It considers how reliability, availability and maintainability factors influence design and life cycle costs, the concept of ILS, the elements of ILS (maintenance planning, supply support, manpower and personnel, training and training devices, technical data, facilities, packaging, handling, storage and transport, support and test equipment, and computing support), and logistics operations and coordination. It includes related topics on logistic support analysis (LSA), modelling and simulation and the practice of logistics in both private and public enterprises.

OBJECTIVES
The main objective of the course is to enable the student to manage, or interact with the person who is managing, the logistics aspects of the introduction of a complex system into operational service. On successful completion of the course the student will be able to:
1. understand the logistic support implications of a major project and thus ensure that all logistic activities are formally integrated into it to achieve performance and logistic objectives at the minimum whole-of-life cost;
2. appreciate the importance of logistics in controlling costs, the need for an early consideration of the logistic impacts of acquisition decisions and the timely inclusion of logistic support requirements into the project plan;
3. appreciate the importance of the reliability, availability and maintainability of systems and sub-systems and understand the impact of these parameters on design and cost;
4. integrate the ILS elements into a formal ILS Plan for a given project, using project management techniques;
5. understand the concept of logistics support solutions and the need to support requirements throughout the service life of a system, including the use of special logistics contractors;
6. use life cycle cost system models as a tool for quantitative analysis and comprehensive handling of logistics management issues and solutions;
7. analyse vehicles and capital equipment replacement problems using computer-based algorithms; and
8. understand the requirements and management level functions of a logistics information system.

**TOPICS**

<table>
<thead>
<tr>
<th>Description</th>
<th>Weighting (%)</th>
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<tbody>
<tr>
<td>1. Introduction to Integrated Logistics Support. The importance of logistics management for whole-of-life costs control.</td>
<td>5.00</td>
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<td>2. Integrated Logistics Support in the capital procurement process</td>
<td>5.00</td>
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<td>3. Integrated Logistic Support (ILS) concepts. Major elements of ILS and need for an integrated approach.</td>
<td>15.00</td>
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<td>4. Logistics Support Analysis. The purpose of LSA, its operation and limitations.</td>
<td>10.00</td>
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<td>5. Planning integrated logistics support activities to coincide with other project management areas.</td>
<td>10.00</td>
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<td>6. Alternative ILS solutions and Life Cycle Costs - why alternative solutions are considered, criteria for assessment and life-cycle implications.</td>
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<td>7. Industry as a participant in the logistics effort; considering &quot;in-house&quot; and &quot;outside&quot; participants in the trial logistics support strategy solution.</td>
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<td>8. Logistics Information Systems, including Computer-aided Acquisition and Life-cycle Support (CALS).</td>
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<td>9. Warehousing locations and transportation in business logistics. Storage and distribution as issues for logistics managers in the logistics strategy.</td>
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<td>10. Re-ordering and economic order quantities - standard business logistics methods.</td>
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<td>11. Repair or replace decisions - computer based methods.</td>
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TEXT and MATERIALS required to be PURCHASED or ACCESSSED

ALL textbooks and materials are available for purchase from USQ BOOKSHOP (unless otherwise stated). Orders may be placed via secure internet, free fax 1800642453, phone 07 46312742 (within Australia), or mail. Overseas students should fax +61 7 46311743, or phone +61 7 46312742. For costs, further details, and internet ordering, use the 'Textbook Search' facility at http://bookshop.usq.edu.au click 'Semester', then enter your 'Course Code' (no spaces).


(revised & updated edition)

REFERENCE MATERIALS

Reference materials are materials that, if accessed by students, may improve their knowledge and understanding of the material in the course and enrich their learning experience.


STUDENT WORKLOAD REQUIREMENTS

<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>HOURS</th>
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<tbody>
<tr>
<td>Directed Study</td>
<td>54.00</td>
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<tr>
<td>Examinations</td>
<td>3.00</td>
</tr>
<tr>
<td>Private Study</td>
<td>108.00</td>
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</table>
### ASSESSMENT DETAILS

<table>
<thead>
<tr>
<th>Description</th>
<th>Marks out of</th>
<th>Wtg(%)</th>
<th>Due date</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIFE CYCLE COSTING ASSIGNMENT</td>
<td>35.00</td>
<td>35.00</td>
<td>09 May 2005</td>
</tr>
<tr>
<td>ASSIGNMENT 2A</td>
<td>25.00</td>
<td>25.00</td>
<td>16 May 2005</td>
</tr>
<tr>
<td>(see note 1)</td>
<td></td>
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<tr>
<td>ASSIGNMENT 2B</td>
<td>25.00</td>
<td>25.00</td>
<td>30 May 2005</td>
</tr>
<tr>
<td>3 HOUR EXAMINATION</td>
<td>100.00</td>
<td>40.00</td>
<td>END S1</td>
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<td>(see note 2)</td>
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### NOTES

1. Students are to complete either assignment 2A or assignment 2B.
2. The examination is scheduled to be held in the end-of-semester examination period. Students will be advised of the official examination date after the timetable has been finalised.

### IMPORTANT ASSESSMENT INFORMATION

1. Attendance requirements:
   If you are an international student in Australia you are advised to attend all classes at your campus. Failure to attend may infringe the conditions of your student visa. For all other students, there are no attendance requirements for this course. However, it is the students' responsibility to study all material provided to them or required to be accessed by them to maximise their chance of meeting the objectives of the course and to be informed of course-related activities and administration.

2. Requirements for students to complete each assessment item satisfactorily:
   To complete each of the assessment items satisfactorily, students must obtain at least 50% of the marks available for each assessment item.

3. Penalties for late submission of required work:
   If students submit assignments after the due date without prior approval then a penalty of 10% of the total marks available for the assignment will apply for each working day late.

4. Requirements for student to be awarded a passing grade in the course:
   To be assured of a passing grade, students must demonstrate, via the summative assessment items, that they have achieved the required minimum standards in relation to the objectives of the course by: (i) satisfactorily completing the examination and assignments; and (ii) obtaining at least 50% of the total weighted marks available for all summative assessment items.

5. Method used to combine assessment results to attain final grade:
   The final grades for students will be assigned on the basis of the weighted aggregate of the marks (or grades) obtained for each of the summative assessment items in the course.

6. Examination information:
   This is an open examination. Candidates may have access to any material during the examination except the following: electronic communication devices (eg mobile telephones, pagers), bulky materials, devices requiring mains power and material likely to disturb other students.

7. Examination period when Deferred/Supplementary examinations will be held:
Any Deferred or Supplementary examinations for this course will be held during the next examination period.

8 University Regulations:
Students should read USQ Regulations 5.1 Definitions, 5.6. Assessment, and 5.10 Academic Misconduct for further information and to avoid actions which might contravene University Regulations. These regulations can be found at the URL http://www.usq.edu.au/corporateservices/calendar/part5.htm. Students should also read the Faculty of Business Guide to Policies and Procedures of the Faculty which can be found at the URL http://www.usq.edu.au/handbook/current/buspolproc.html.

ASSESSMENT NOTES

1 Assignments: (i) The due date for an assignment is the date by which a student must despatch the assignment to the USQ. The onus is on the student to provide proof of the despatch date, if requested by the Examiner. (ii) Students must retain a copy of each item submitted for assessment. This must be produced within five days if required by the Examiner. (iii) The Examiner may grant an extension of the due date of an assignment in extenuating circumstances. Students may apply for an extension through the DEC before the due date or by including an application with the submitted assignment after the due date. Such applications should be in writing and include supporting documentary evidence. The authority for granting extensions rests with the relevant Examiner. (iv) The Examiner will normally only accept assessments that have been written, typed or printed on paper-based media. (v) The Examiner will not accept submission of assignments by facsimile. (vi) Students who do not have regular access to postal services or who are otherwise disadvantaged by these regulations may be given special consideration. They should contact the examiner of the course to negotiate such special arrangements. (vii) In the event that a due date for an assignment falls on a local public holiday in their area, such as a Show holiday, the due date for the assignment will be the next day. Students are to note on the assignment cover the date of the public holiday for the Examiner's convenience.

2 Course Weightings: Course weightings of topics should not be interpreted as applying to the number of marks allocated to questions testing those topics in an examination paper.

3 Make-up Work: Students who have undertaken all of the required assessments in a course but who have failed to meet some of the specified objectives of a course within the normally prescribed time may be awarded the temporary grade: IM (Incomplete - Make up). An IM grade will only be awarded when, in the opinion of the examiner, a student will be able to achieve the remaining objectives of the course after a period of non directed personal study.

4 Deferred Work: Students who, for medical, family/personal, or employment-related reasons, are unable to complete an assignment or to sit for an examination at the scheduled time may apply to defer an assessment in a course. Such a request must be accompanied by appropriate supporting documentation. One of the following temporary grades may be awarded: IDS (Incomplete - Deferred Examination); IDM (Incomplete Deferred Make-up); IDB (Incomplete - Both Deferred Examination and Deferred Make-up).