



STAT321

Logistics and Project Management

S1 Day 2018

Dept of Statistics

Contents

<u>General Information</u>	2
<u>Learning Outcomes</u>	3
<u>General Assessment Information</u>	3
<u>Assessment Tasks</u>	3
<u>Delivery and Resources</u>	5
<u>Unit Schedule</u>	6
<u>Policies and Procedures</u>	7
<u>Graduate Capabilities</u>	9

Disclaimer

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General Information

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TBA

TBA

David Bulger

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Credit points

3

Prerequisites

6cp at 200 level including STAT279

Corequisites

Co-badged status

Unit description

STAT321 is a three credit point unit for Decisions Science Major offered by the Department of Statistics. It consists of the two modules - Project Management followed by Logistics. In the study of Project Management topics include Network Diagramming Techniques in Scheduling, Risk Analysis including Classic & Non-Classic PERT model, Time Limited Scheduling (Resource Levelling), Resource limited Scheduling, Goldratt's Critical Chain Scheduling, Time-cost Trade offs and Project Selection. Practical applications will be undertaken using Microsoft Project. Also students will be introduced to new learning software developed by Jan Davos (former student of STAT321) and Kj Byun (convenor of the unit), called AMUN. Logistics will include the following topics: Supply Chain Management, Push and Pull distributions, Lean distribution and Materials Management. Whilst it is open to any students having successfully completed STAT279, it is a compulsory unit for students majoring in the Decision Science. The combination of appropriate units will lead to a degree that will equip the graduate with the necessary skills required to solve practical real-world problems.

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at <https://www.mq.edu.au/study/calendar-of-dates>

Learning Outcomes

On successful completion of this unit, you will be able to:

Be able to understand the difference between real life projects and processes.

Be able to provide a schedule and analyze a moderately complicated project manually.

Be able to apply a range of statistical techniques and logical thinking in project scheduling and management.

Be able to use Microsoft Project 2013/2016 to plan, schedule and monitor large projects.

Be able to communicate the results of planning and scheduling of a project clearly.

Be able to appreciate the role of logistics in industry including project management and supply chain management.

General Assessment Information

No extensions will be considered for any assessment task without an application of **disruption to studies**. Students who submit their assessment tasks after the deadline for the task will be awarded a mark of 0 for the assessment, except for cases in which an application of **disruption to studies** has been received and approved.

Assessment Tasks

Name	Weighting	Hurdle	Due
First Assignment	10%	No	19th March (Week 4)
Class Test	10%	No	9th April (Week 7)
Major Assignment	20%	No	21st May (Week 11)
Final Examination	60%	No	Examination Period

First Assignment

Due: **19th March (Week 4)**

Weighting: **10%**

Submit by 3pm on the due date or, at the latest, at the beginning of the lecture on the due date. It must be **word-processed** or it will automatically receive zero marks. There is no "group work" assessment in this unit. All work is to be the student's own.

In the case of the late submission of an assignment, if no special consideration has been granted, 10% of the earned mark will be deducted for each day that the assignment is late, up to a maximum of 50%. After 5 days, including weekends and public holidays, a mark of 0% will be awarded for the assignment.

On successful completion you will be able to:

- Be able to understand the difference between real life projects and processes.
- Be able to provide a schedule and analyze a moderately complicated project manually.
- Be able to apply a range of statistical techniques and logical thinking in project scheduling and management.
- Be able to communicate the results of planning and scheduling of a project clearly.

Class Test

Due: **9th April (Week 7)**

Weighting: **10%**

The test will be held during the lecture on **9th April (week 7)** and will commence at **3:05pm**. It will cover all material up to and including the end of **week 5**. It will be of 1 hour duration including reading time. Students may bring into the test **one piece of paper up to A4 size** on which you may **handwrite** anything you like on **one side only**. No other notes or books are allowed. There will be NO supplementary class tests.

On successful completion you will be able to:

- Be able to understand the difference between real life projects and processes.
- Be able to provide a schedule and analyze a moderately complicated project manually.
- Be able to apply a range of statistical techniques and logical thinking in project scheduling and management.
- Be able to communicate the results of planning and scheduling of a project clearly.

Major Assignment

Due: **21st May (Week 11)**

Weighting: **20%**

Submit 3pm on the due date or, at the latest, at the beginning of the lecture on the due date. It must be **word-processed** or it will automatically receive zero marks. There is no "group work" assessment in this unit. All work is to be the student's own.

In the case of the late submission of an assignment, if no special consideration has been granted, 10% of the earned mark will be deducted for each day that the assignment is late, up to a maximum of 50%. After 5 days, including weekends and public holidays, a mark of 0% will be awarded for the assignment.

On successful completion you will be able to:

- Be able to understand the difference between real life projects and processes.
- Be able to provide a schedule and analyze a moderately complicated project manually.
- Be able to apply a range of statistical techniques and logical thinking in project

scheduling and management.

- Be able to use Microsoft Project 2013/2016 to plan, schedule and monitor large projects.
- Be able to communicate the results of planning and scheduling of a project clearly.
- Be able to appreciate the role of logistics in industry including project management and supply chain management.

Final Examination

Due: **Examination Period**

Weighting: **60%**

A 3 hour final examination (with an additional 10 minutes' reading time) for this unit will be held during the University's mid-year Examination period. The final examination will cover all topics dealt within the unit. Students may bring into the exam **one piece of paper up to A4 size** on which you may **handwrite** anything you like on **both sides**. No other notes or books are allowed.

You are expected to present yourself for examination at the time and place designated in the University Examination Timetable and this includes weekends. The timetable will be available in Draft form approximately eight weeks before the commencement of the examinations and in final form approximately four weeks before the commencement of the examinations at:

<http://www.timetables.mq.edu/exam>

The only exception to not sitting an examination at the designated time is because of documented illness or unavoidable disruption. In these circumstances you may wish to consider applying for **disruption to studies**.

If you notify the University of your disruption to studies for your final examination, you must make yourself available for the week of July 23 - 27, 2018. If you are not available at that time, there is no guarantee an additional examination time will be offered. Specific examination dates and times will be determined at a later date.

On successful completion you will be able to:

- Be able to understand the difference between real life projects and processes.
- Be able to provide a schedule and analyze a moderately complicated project manually.
- Be able to apply a range of statistical techniques and logical thinking in project scheduling and management.
- Be able to use Microsoft Project 2013/2016 to plan, schedule and monitor large projects.
- Be able to communicate the results of planning and scheduling of a project clearly.
- Be able to appreciate the role of logistics in industry including project management and supply chain management.

Delivery and Resources

CLASSES

Lectures: Presentation of new material via examples, discussion and hands-on exercises.

- Length: One 3 hour beginning in Week 1
- Location: 9 Wally's Walk 102 Theatrette
- Time: Monday 3pm-6pm

Tutorial: Practical application of project scheduling and managing via AMUN, Microsoft Project 2013/2016 and Microsoft Excel. Some computer simulation games for understanding logistics and supply chain management.

- Length: One 1 hour beginning in Week 2
- Location: 6 Eastern Rd 206 Faculty PC Lab (Formerly known as E4B 206)
- Time: Monday 12pm, 1pm

The timetable for classes can be found on the University web site at: <http://www.timetables.mq.edu.au/>

TEACHING AND LEARNING STRATEGY

Students should attend all the lectures and the tutorials as it is an internal unit. Lecture handouts will contain examples and exercises mostly, without solution. The solution to these examples and exercises will be covered only in the lecture. Some additional exercises may be discussed during the lecture. During tutorial, students will have a further chance to practice techniques learned in lectures and improve their understanding.

In addition, there will be weekly exercises which students must attempt and verify answers each week in their own time.

TECHNOLOGY USED AND REQUIRED

The web page for this unit can be found at: <http://handbook.mq.edu.au/2018/Units/UGUnit/STAT321>

The iLearn site for STAT321 and can be accessed at: <https://ilearn.mq.edu.au/login/MQ/>.

Students should check the site regularly to find the latest announcements, lecture notes, tutorial sheets, and assignments. In addition, always check the site on the day of the lecture for announcements, etc.

Lecture handout and weekly exercises will be placed on iLearn.

Unit Schedule

STAT 321 SCHEDULE (D1 2018)

<i>Week</i>	<i>Lecture Date</i>	<i>Topic</i>	<i>Assessment due (Monday 3pm)</i>
1	26 Feb	Introduction to Project Management	
2	5 March	Creating a project schedule and network Scheduling	
3	12 March	CPM and PERT	
4	19 March	Time Limited Scheduling	First Assignment
5	26 March	Resources Limited Scheduling	
6	2 April	Easter Monday - no lectures or tutorials	
7	9 April	Class Test Time-cost trade analysis in a project environment	Class Test
Mid Semester Break			
8	30 Apr	Critical Chain Project Management	
9	7 May	Introduction to Logistics Systems	
10	14 May	Development and Growth of Business Logistics	
11	21 May	The Supply-Chain Concept – Demand Driven Logistics	Major Assignment
12	28 May	Logistics of Information Systems	
13	4 June	Revision	

Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central \(https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central\)](https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- [Academic Appeals Policy](#)
- [Academic Integrity Policy](#)
- [Academic Progression Policy](#)

- [Assessment Policy](#)
- [Fitness to Practice Procedure](#)
- [Grade Appeal Policy](#)
- [Complaint Management Procedure for Students and Members of the Public](#)
- [Special Consideration Policy](#) (**Note:** *The Special Consideration Policy is effective from 4 December 2017 and replaces the Disruption to Studies Policy.*)

Undergraduate students seeking more policy resources can visit the [Student Policy Gateway](https://students.mq.edu.au/support/study/student-policy-gateway) (<https://students.mq.edu.au/support/study/student-policy-gateway>). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

If you would like to see all the policies relevant to Learning and Teaching visit [Policy Central](http://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central) (<http://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central>).

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: <https://students.mq.edu.au/study/getting-started/student-conduct>

Results

Results shown in *iLearn*, or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be made available in [eStudent](#). For more information visit ask.mq.edu.au.

Student Support

Macquarie University provides a range of support services for students. For details, visit <http://students.mq.edu.au/support/>

Learning Skills

Learning Skills (mq.edu.au/learningskills) provides academic writing resources and study strategies to improve your marks and take control of your study.

- [Workshops](#)
- [StudyWise](#)
- [Academic Integrity Module for Students](#)
- [Ask a Learning Adviser](#)

Student Services and Support

Students with a disability are encouraged to contact the [Disability Service](#) who can provide appropriate help with any issues that arise during their studies.

Student Enquiries

For all student enquiries, visit Student Connect at ask.mq.edu.au

IT Help

For help with University computer systems and technology, visit http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/.

When using the University's IT, you must adhere to the [Acceptable Use of IT Resources Policy](#). The policy applies to all who connect to the MQ network including students.

Graduate Capabilities

Creative and Innovative

Our graduates will also be capable of creative thinking and of creating knowledge. They will be imaginative and open to experience and capable of innovation at work and in the community. We want them to be engaged in applying their critical, creative thinking.

This graduate capability is supported by:

Learning outcomes

- Be able to provide a schedule and analyze a moderately complicated project manually.
- Be able to use Microsoft Project 2013/2016 to plan, schedule and monitor large projects.
- Be able to communicate the results of planning and scheduling of a project clearly.

Assessment task

- Major Assignment

Capable of Professional and Personal Judgement and Initiative

We want our graduates to have emotional intelligence and sound interpersonal skills and to demonstrate discernment and common sense in their professional and personal judgement. They will exercise initiative as needed. They will be capable of risk assessment, and be able to handle ambiguity and complexity, enabling them to be adaptable in diverse and changing environments.

This graduate capability is supported by:

Learning outcomes

- Be able to use Microsoft Project 2013/2016 to plan, schedule and monitor large projects.
- Be able to communicate the results of planning and scheduling of a project clearly.
- Be able to appreciate the role of logistics in industry including project management and supply chain management.

Assessment task

- Major Assignment

Discipline Specific Knowledge and Skills

Our graduates will take with them the intellectual development, depth and breadth of knowledge, scholarly understanding, and specific subject content in their chosen fields to make them competent and confident in their subject or profession. They will be able to demonstrate, where relevant, professional technical competence and meet professional standards. They will be able to articulate the structure of knowledge of their discipline, be able to adapt discipline-specific knowledge to novel situations, and be able to contribute from their discipline to inter-disciplinary solutions to problems.

This graduate capability is supported by:

Learning outcomes

- Be able to understand the difference between real life projects and processes.
- Be able to provide a schedule and analyze a moderately complicated project manually.
- Be able to apply a range of statistical techniques and logical thinking in project scheduling and management.
- Be able to use Microsoft Project 2013/2016 to plan, schedule and monitor large projects.
- Be able to communicate the results of planning and scheduling of a project clearly.
- Be able to appreciate the role of logistics in industry including project management and supply chain management.

Assessment tasks

- First Assignment
- Class Test
- Major Assignment
- Final Examination

Critical, Analytical and Integrative Thinking

We want our graduates to be capable of reasoning, questioning and analysing, and to integrate and synthesise learning and knowledge from a range of sources and environments; to be able to critique constraints, assumptions and limitations; to be able to think independently and systemically in relation to scholarly activity, in the workplace, and in the world. We want them to have a level of scientific and information technology literacy.

This graduate capability is supported by:

Learning outcomes

- Be able to apply a range of statistical techniques and logical thinking in project

scheduling and management.

- Be able to use Microsoft Project 2013/2016 to plan, schedule and monitor large projects.
- Be able to communicate the results of planning and scheduling of a project clearly.

Assessment tasks

- Class Test
- Major Assignment
- Final Examination

Problem Solving and Research Capability

Our graduates should be capable of researching; of analysing, and interpreting and assessing data and information in various forms; of drawing connections across fields of knowledge; and they should be able to relate their knowledge to complex situations at work or in the world, in order to diagnose and solve problems. We want them to have the confidence to take the initiative in doing so, within an awareness of their own limitations.

This graduate capability is supported by:

Learning outcomes

- Be able to apply a range of statistical techniques and logical thinking in project scheduling and management.
- Be able to use Microsoft Project 2013/2016 to plan, schedule and monitor large projects.

Assessment tasks

- Class Test
- Major Assignment

Effective Communication

We want to develop in our students the ability to communicate and convey their views in forms effective with different audiences. We want our graduates to take with them the capability to read, listen, question, gather and evaluate information resources in a variety of formats, assess, write clearly, speak effectively, and to use visual communication and communication technologies as appropriate.

This graduate capability is supported by:

Learning outcomes

- Be able to communicate the results of planning and scheduling of a project clearly.
- Be able to appreciate the role of logistics in industry including project management and supply chain management.

Assessment tasks

- First Assignment
- Class Test
- Major Assignment
- Final Examination

Engaged and Ethical Local and Global citizens

As local citizens our graduates will be aware of indigenous perspectives and of the nation's historical context. They will be engaged with the challenges of contemporary society and with knowledge and ideas. We want our graduates to have respect for diversity, to be open-minded, sensitive to others and inclusive, and to be open to other cultures and perspectives: they should have a level of cultural literacy. Our graduates should be aware of disadvantage and social justice, and be willing to participate to help create a wiser and better society.

This graduate capability is supported by:

Learning outcomes

- Be able to apply a range of statistical techniques and logical thinking in project scheduling and management.
- Be able to communicate the results of planning and scheduling of a project clearly.

Assessment tasks

- Major Assignment
- Final Examination

Socially and Environmentally Active and Responsible

We want our graduates to be aware of and have respect for self and others; to be able to work with others as a leader and a team player; to have a sense of connectedness with others and country; and to have a sense of mutual obligation. Our graduates should be informed and active participants in moving society towards sustainability.

This graduate capability is supported by:

Learning outcomes

- Be able to apply a range of statistical techniques and logical thinking in project scheduling and management.
- Be able to use Microsoft Project 2013/2016 to plan, schedule and monitor large projects.
- Be able to communicate the results of planning and scheduling of a project clearly.
- Be able to appreciate the role of logistics in industry including project management and supply chain management.

Assessment tasks

- Class Test
- Major Assignment
- Final Examination