

# BUS304 Mathematical Economics

School: School of Business and Creative Industries

2020 | Semester 2

UniSC Sunshine Coast

**BLENDED  
LEARNING**

Most of your course is on campus but you may be able to do some components of this course online.

*Please go to [unisc.edu.au](http://unisc.edu.au) for up to date information on the teaching sessions and campuses where this course is usually offered.*

## 1. What is this course about?

### 1.1. Description

You will develop the skills to use the basic mathematical methods which are indispensable for a proper understanding of economics and you will have increase your facility in tackling economic problems using a mathematical framework. You will gain a deeper understanding of common micro and macro topics and will be able to tackle economic problems in a more rigorous mathematical way.

### 1.2. How will this course be delivered?

ACTIVITY	HOURS	BEGINNING WEEK	FREQUENCY
<b>BLENDED LEARNING</b>			
<b>Tutorial/Workshop 1</b>	3hrs	Not applicable	Not Yet Determined

## 2. What level is this course?

300 Level (Graduate)

Demonstrating coherence and breadth or depth of knowledge and skills. Independent application of knowledge and skills in unfamiliar contexts. Meeting professional requirements and AQF descriptors for the degree. May require pre-requisites where discipline specific introductory or developing knowledge or skills is necessary. Normally undertaken in the third or fourth full-time study year of an undergraduate program.

## 3. What is the unit value of this course?

12 units

#### 4. How does this course contribute to my learning?

COURSE LEARNING OUTCOMES		GRADUATE QUALITIES
On successful completion of this course, you should be able to...		Completing these tasks successfully will contribute to you becoming...
1	To identify and coherently explain core economic concepts using mathematical notation to represent simple economic models graphically and algebraically and present a clear and coherent exposition of the solution of these models	Knowledgeable Creative and critical thinker
2	To frame problems in terms of core economic principles using economic models in matrix form to represent sets of simultaneous equations and apply matrix methods to solve such models and present a clear and coherent exposition of their solution.	Knowledgeable Creative and critical thinker
3	To frame problems in terms of core economic principles, applying differential calculus, including partial derivatives, total differentials and constrained optimisation to analyse a range of economic problems and present a clear and coherent exposition of their solution.	Knowledgeable Creative and critical thinker

#### 5. Am I eligible to enrol in this course?

Refer to the [UniSC Glossary of terms](#) for definitions of “pre-requisites, co-requisites and anti-requisites”.

##### 5.1. Pre-requisites

Not applicable

##### 5.2. Co-requisites

Not applicable

##### 5.3. Anti-requisites

Not applicable

##### 5.4. Specific assumed prior knowledge and skills (where applicable)

Not applicable

##### 5.5. Microcredential Information

Not applicable

#### 6. How am I going to be assessed?

##### 6.1. Grading Scale

Standard Grading (GRD)

High Distinction (HD), Distinction (DN), Credit (CR), Pass (PS), Fail (FL).

##### 6.2. Details of early feedback on progress

From week 2, answers to the weekly exercises will be discussed in class and also posted on Blackboard.

##### 6.3. Assessment tasks

DELIVERY MODE	TASK NO.	ASSESSMENT PRODUCT	INDIVIDUAL OR GROUP	WEIGHTING %	WHAT IS THE DURATION / LENGTH?	WHEN SHOULD I SUBMIT?	WHERE SHOULD I SUBMIT IT?
All	1	Written Piece	Individual	30%	2 pages	Refer to Format	In Class
All	2	Examination - not Centrally Scheduled	Individual	25%	1 hour	Week 9	In Class
All	3	Examination - Centrally Scheduled	Individual	45%	2 hours	Exam Period	Exam Venue

**All - Assessment Task 1:** Problem sets

<b>GOAL:</b>	To frame problems in terms of core economic principles by practising exercises essential to developing your ability to identify, communicate and analyse solutions to a range of economic problems.																
<b>PRODUCT:</b>	Written Piece																
<b>AUTHORSHIP STATEMENT:</b>																	
<b>FORMAT:</b>	Submit: Weeks 3, 7, 12. Undertake three problem sets in Weeks 3, 7 and 12, each worth 10%; work must be written up individually; answers should be comprehensible by an audience of peers; length: approximately two pages. The exercises will be available on Blackboard.																
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<b>GENERIC SKILLS:</b>																	

**All - Assessment Task 2:** Examination

<b>GOAL:</b>	To apply economic reasoning and analytical skills to present clear and coherent solutions to the types of models set out in 3 above.													
<b>PRODUCT:</b>	Examination - not Centrally Scheduled													
<b>AUTHORSHIP STATEMENT:</b>														
<b>FORMAT:</b>	Test in Week 9; work must be completed individually; written answers should be presented in a manner comprehensible by an experienced marker. A sample test (based on topics covered up to Week 7) will be available on Blackboard.													
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3	Correctness of answers.													
<b>GENERIC SKILLS:</b>														

### All - Assessment Task 3: Final Examination

<b>GOAL:</b>	To apply economic reasoning and analytical skills to present clear and coherent solutions to the types of models set out in 3 above.								
<b>PRODUCT:</b>	Examination - Centrally Scheduled								
<b>AUTHORSHIP STATEMENT:</b>									
<b>FORMAT:</b>	This assessment task will be made up of questions similar to those in the problem sets and may cover all parts of the course. A sample exam will be provided on Blackboard during the course.								
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## 7. Directed study hours

A 12-unit course will have total of 150 learning hours which will include directed study hours (including online if required), self-directed learning and completion of assessable tasks. Student workload is calculated at 12.5 learning hours per one unit.

## 8. What resources do I need to undertake this course?

Please note: Course information, including specific information of recommended readings, learning activities, resources, weekly readings, etc. are available on the course Canvas site– Please log in as soon as possible.

### 8.1. Prescribed text(s) or course reader

There are no required/recommended resources for this course.

### 8.2. Specific requirements

A scientific calculator may be useful but is not needed for most problems

## 9. How are risks managed in this course?

## 10. What administrative information is relevant to this course?

### 10.1. Assessment: Academic Integrity

Academic integrity is the ethical standard of university participation. It ensures that students graduate as a result of proving they are competent in their discipline. This is integral in maintaining the value of academic qualifications. Each industry has expectations and standards of the skills and knowledge within that discipline and these are reflected in assessment.

Academic integrity means that you do not engage in any activity that is considered to be academic fraud; including plagiarism, collusion or outsourcing any part of any assessment item to any other person. You are expected to be honest and ethical by completing all work yourself and indicating in your work which ideas and information were developed by you and which were taken from others. You cannot provide your assessment work to others. You are also expected to provide evidence of wide and critical reading, usually by using appropriate academic references.

In order to minimise incidents of academic fraud, this course may require that some of its assessment tasks, when submitted to Canvas, are electronically checked through Turnitin. This software allows for text comparisons to be made between your submitted assessment item and all other work to which Turnitin has access.

### 10.2. Assessment: Additional Requirements

Your eligibility for supplementary assessment in a course is dependent of the following conditions applying: The final mark is in the percentage range 47% to 49.4% The course is graded using the Standard Grading scale You have not failed an assessment task in the course due to academic misconduct

### 10.3. Assessment: Submission penalties

Late submission of assessment tasks may be penalised at the following maximum rate: - 5% (of the assessment task's identified value) per day for the first two days from the date identified as the due date for the assessment task. - 10% (of the assessment task's identified value) for the third day - 20% (of the assessment task's identified value) for the fourth day and subsequent days up to and including seven days from the date identified as the due date for the assessment task. - A result of zero is awarded for an assessment task submitted after seven days from the date identified as the due date for the assessment task. Weekdays and weekends are included in the calculation of days late. To request an extension you must contact your course coordinator to negotiate an outcome.

### 10.4. Links to relevant University policy and procedures

For more information on Academic Learning & Teaching categories including:

- Assessment: Courses and Coursework Programs
- Review of Assessment and Final Grades
- Supplementary Assessment
- Central Examinations
- Deferred Examinations
- Student Conduct
- Students with a Disability

For more information, visit <https://www.usc.edu.au/explore/policies-and-procedures#academic-learning-and-teaching>

### 10.5. Student Charter

UniSC is committed to excellence in teaching, research and engagement in an environment that is inclusive, inspiring, safe and respectful. The [Student Charter](#) sets out what students can expect from the University, and what in turn is expected of students, to achieve these outcomes.

### 10.6. General Enquiries

#### In person:

- **UniSC Sunshine Coast** - Student Central, Ground Floor, Building C, 90 Sippy Downs Drive, Sippy Downs
- **UniSC Moreton Bay** - Service Centre, Ground Floor, Foundation Building, Gympie Road, Petrie
- **UniSC SouthBank** - Student Central, Building A4 (SW1), 52 Merivale Street, South Brisbane
- **UniSC Gympie** - Student Central, 71 Cartwright Road, Gympie
- **UniSC Fraser Coast** - Student Central, Student Central, Building A, 161 Old Maryborough Rd, Hervey Bay
- **UniSC Caboolture** - Student Central, Level 1 Building J, Cnr Manley and Tallon Street, Caboolture

**Tel:** +61 7 5430 2890

**Email:** [studentcentral@usc.edu.au](mailto:studentcentral@usc.edu.au)