



University of
South Australia

COMP 2019

Week 1

Course Organisation

Learning Objectives

- Understand how this course is organized
- Understand the expectations
- Know the assessments



About Me

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Course Coordinator

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Consultation Hours:
Wednesdays 11.10am-12pm
Room D3-28



University of
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Course Aim & Objectives

- To develop and deploy Artificial Intelligence (AI) and Machine Learning (ML) systems.

CO1. Discuss the capabilities and limitations of AI and ML systems

CO2. Solve intractable problems using search based problem solving techniques

CO3. Apply the principles of data preparation, training, and validation techniques for ML

CO4. Utilise methods for interfacing with real world environments

CO5. Describe the ethical implications related to AI systems



Learning Arrangements

- 1 hour Lecture
 - Zoom
 - Introduction to the concepts and topics
- 2 hour Practical
 - Face to face
 - Apply concepts to concrete examples
 - Python programming



Arrangements for External Students

- External students will work through the practical exercises in their own time each week
- Discuss any questions on the discussion forum
- Consult via Zoom



Topics

Week	Dates	Topic	Assessment details (Adelaide Time)
1	26 July - 1 August	Introduction to AI	
2	02 - 8 August	Search-based Problem Solving	Activity 1 - AI Example due 02 Aug 2021, 11:59 PM
3	09 - 15 August	Heuristic Search	Activity 2 - Search due 09 Aug 2021, 11:59 PM
4	16 - 22 August	Constraint Satisfaction Search	Activity 3 - Heuristic Search due 16 Aug 2021, 11:59 PM
5	23 - 29 August	Evolutionary Algorithms	Activity 4 - Constraints due 23 Aug 2021, 11:59 PM
6	30 August - 5 September	Introducton to Machine Learning (ML)	Activity 5 - Evolutionary Algorithms due 30 Aug 2021, 11:59 PM
7	06 - 12 September	Data Preparation and Training	Activity 6 - ML Examples due 06 Sep 2021, 11:59 PM
8	13 - 19 September	Validation of ML systems	Activity 7 - ML Training due 13 Sep 2021, 11:59 PM
	20 September - 3 October	Mid-break	Activity 8 - ML Validation due 20 Sep 2021, 11:59 PM Test
9	04 - 10 October	Computer Vision	
10	11 - 17 October	Natural Language Processing	
11	18 - 24 October	Deployment of ML Systems	Activity 9 - NLP due 18 Oct 2021, 11:59 PM
12	25 - 31 October	AI Systems in the Real World	
13	01 - 7 November	Revision	Activity 10 - Ethics due 01 Nov 2021, 11:59 PM
	08 - 14 November	Swot-vac	Group assignment due 08 Nov 2021, 11:59 PM



Individual Expectations

- You will revise Python programming where required
- You will manage your own time
- You will complete the learning tasks associated with each module
- You will research independently and think critically

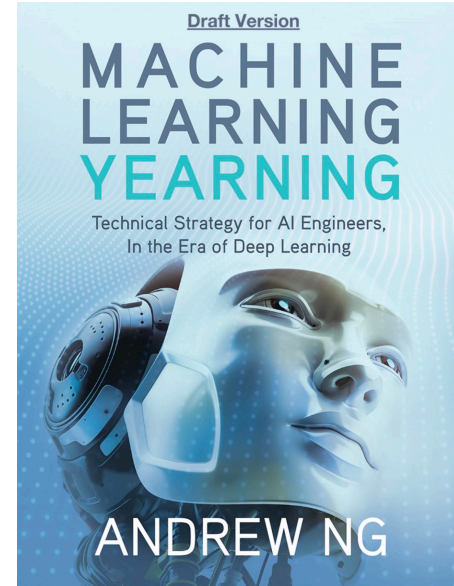
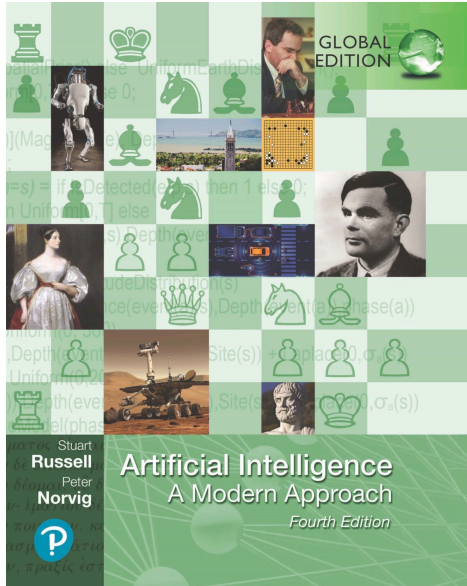


Cooperative learning

- Learn collaboratively
- Discuss the topics
- Leverage the individuals in your team for workshops
- Ask for help
- Ask early



Resources



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Assessments

- Continuous Assessment [30%]
 - 10 online activities
 - Test your knowledge of the concepts presented each week
- Test [40%]
 - Invigilated, face to face
 - During mid-term break. Date TBA.
- Group Project [30%]
 - Group project (4 students)
 - Due Monday 8th November 2021



Late Penalty

- **Late submissions are not accepted** in this course
- Late submissions receive **0 marks**
- Zero marks for an assignment makes it very difficult to pass this course.





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Questions?