

INFS 7003 ADVANCED TOPICS IN ICT

Credit Points 10

Legacy Code 300694

Coordinator Tomas Trescak ([https://directory.westernsydney.edu.au/search/name/Tomas Trescak/](https://directory.westernsydney.edu.au/search/name/Tomas%20Trescak/))

Description The information and communications technologies are advancing at an ever-increasing rate. The whole world is now interconnected. The World Wide Web community is actively engaged in developing the next generation of the Web. Social networking on the Internet is facilitated by the latest developments such as Facebook, YouTube and MySpace. Artificial Intelligence is increasingly intertwined with the decisions we make every day. Large scale storage technologies are leading to Cloud Computing where data and applications may reside anywhere in the world. Research in how to access meaningful data from the vast amounts on the Web has led to initiatives such as Semantic Web and Linked Data. Mashups mix data from disparate sources to enable users to work more efficiently. Wireless and mobile computing are changing the market place. All of these trends are still in their early stages. To make sense of all these developments, the top echelons of the World Wide Web Consortium are actively engaged in creating a new discipline called Web Science. Advanced Topics in ICT will enable the students to appreciate the scale of new developments and create prototypes of applications in their desired ambit. This unit consists of three Topics selected each semester. Assessment will be by a series of discussion paper assignments here students will show they have met the unit learning outcomes.

School Computer, Data & Math Sciences

Discipline Information Systems, Not Elsewhere Classified.

Student Contribution Band HECS Band 2 10cp

Level Postgraduate Coursework Level 7 subject

Pre-requisite(s) ENGR 7017

Restrictions

Students must be enrolled in a postgraduate program.

Learning Outcomes

On successful completion of this subject, students should be able to:

1. Explain significant major research and development trends in ICT
2. Describe the current "state of the art" in three selected topic areas of Advanced ICT
3. Critically analyse technical publications in three selected topic areas of Advanced ICT
4. Apply knowledge gained during the subject to contextualise new ideas in ICT and discuss them with experts in the field
5. Summarise the impact of the consumer and socio-economic issues in Advanced ICT

Subject Content

Advanced Topics in ICT (ATICT) discusses the latest advances in this area, including the state-of-the-art and cutting edge research results and future trends. Subject content is expected to change over the course of ATICT, due to the rapidly changing ICT industry. Below is a list of possible topics to cover within the unit.

1. Web Technologies
2. Visualisation Technologies
3. Big Data
4. Artificial Intelligence
5. Social Networking
6. Digital Humanities
7. Computational Linguistics
8. Emerging Markets
9. Future Trends

Assessment

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are regularly updated, where there is a difference your Learning Guide takes precedence.

Item	Length	Percent	Threshold	Individual/Group Task
Report	1000-1500 words (approximately 2-3 pages)	20	N	Individual
Presentation	3 Mins (approximately 2-3 slides)	10	N	Individual
Report	1000-1500 words (approximately 2-3 pages)	20	N	Individual
Presentation	3 Mins (approximately 2-3 slides)	10	N	Individual
Report	1000-1500 words (approximately 2-3 pages)	20	N	Individual
Presentation	3 Mins (approximately 2-3 slides)	10	N	Individual
Report	max 500 words (approximately 2 pages)	10	N	Individual

Prescribed Texts

- No specific textbook is prescribed because of the nature of topics which will change from one year to another. The subject will use research journals, white papers and case studies as well as material available on the Web.

Teaching Periods

Autumn

Parramatta - Victoria Rd

Day

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View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=INFS7003_22-AUT_PS_D#subjects)