

Cartography 3

A. Course Identification

- **School:** Mathematical & Geospatial Science
- **Campus:** City Campus
- **Course Name:** Cartography 3
- **Course Code:**
- **Career:** Undergraduate
- **Credit Points:** 12
- **Teacher guided hours (per semester):** 78
- **Learner directed hours (per semester):** 78
- **Duration:** 1 semester
- **Mode of Delivery:**
 - Face-to-Face
- **Course Co-ordinator:**
Professor William Cartwright
- **Contact Details:**
Email: william.cartwright@rmit.edu.au

B. Course Description

What is this course about?

The study and application of aspects of thematic cartography to the design and production of innovative maps.

C. Objectives / Learning Outcomes

What can I expect to learn by studying this course?

- To appreciate the theory of perception and effective map design and its application with the effective production using multiple media formats.
- To understand the fundamentals of Cartographic Communication Models.
- To develop a solid theoretical foundation about cartographic design and mapping visualisation needs.
- To be able to apply the theory of Cartographic Communication Models to a practical thematic mapping programme.
- To be able to apply communication theory to map design.
- To develop skills and techniques related to real mapping programmes.
- To gain an appreciation about the methods employed in the collection of cartographic data and assembly for map compilation.
- To be able to select the appropriate procedures for different practical mapping applications.
- To be able to problem solve individually or as a member of a group.

D. Learning Activities

What opportunities does the course provide for me to learn? What will I be expected to do?

27x1hr lectures, 4x1hr and 1x2hrs tutorials, 9x1hr and 11x2hr mapping studios, 8x2hr atlas studios and 3x9hr field trips

Introduction

Module 1 – Cartographic Communication

- 1.1 Cartographic language
- 1.2 Cartographic Communication
- 1.3 Cartographer - skills and knowledge
- 1.4 Automated map production
- 1.5 Rule-based cartography
- 1.6 Observation and selection of data

Module 2 Design

- 2.1 Product design
- 2.2 Map Design and Production Process for mapping
- 2.3 Atlas design
- 2.4 Psychology and perception
- 2.5 Design specifics – print, screen, Web, hybrid
- 2.6 Prepress – design and specification

Module 3 Map Production

- 3.1 Psychology and production - balancing psychological issues with production realities
- 3.2 Communication Model and production
- 3.3 Print Considerations
- 3.4 Computers and Cartography
- 3.5 Prepress – digital processing
- 3.6 Automated map production – trends and case studies

Module 4 – Map Use

- 4.1 Marketing and selling geospatial products on-line
- 4.2 Maps and Decisions
- 4.3 Using maps
- 4.4 Perception and creativity- mental maps
- 4.5 Map users' reality - age groups and perception
- 4.6 Map user - Reading maps
- 4.7 Reality - Maps and Propaganda

Review of Course

E. Assessment

How will I demonstrate my learning in this course?

See below.

Assessment Tasks and Value

Assignment #1 Perceptual selection and memory 10%

Assignment #2 Cartographic codes 10%

Assignment # 3 Atlas design and specification 20%

Practical work (Satisfactory attendance at field trip, design folio and map production) 40%

Test 20%

Note: To gain a pass in this course all elements must be satisfactorily completed. i.e. a pass or above for each element must be attained.

Course Grades Available

H, D, C, P, N

F. Academic Administration Procedures

What do I do if I need help with deadlines or have become ill?

Immediately contact the Course Co-ordinator.

G. Course Evaluation and Feedback

How can I let you know about my experience of this course?

Provide written comments - email or mail.

H. Academic Misconduct

University Plagiarism Statement

Plagiarism: the presentation of the work, idea or creation of another person as though it is your own. It is a form of cheating and is a very serious academic offence that may lead to expulsion from the University. Plagiarised material can be drawn from, and presented in, written, graphic and visual form, including electronic data, and oral presentations. Plagiarism occurs when the origin of the material used is not appropriately cited.

Examples of plagiarism include:

- Copying sentences or paragraphs word-for-word from one or more sources, whether published or unpublished, which could include but is not limited to books, journals, reports, theses, websites, conference papers, course notes, etc. without proper citation;
- Closely paraphrasing sentences, paragraphs, ideas or themes without proper citation;
- Piecing together text from one or more sources and adding only linking sentences;
- Copying or submitting whole or parts of computer files without acknowledging their source;
- Copying designs or works of art and submitting them as your original work;
- Copying a whole or any part of another student's work; and
- Submitting work as your own that someone else has done for you.

Enabling Plagiarism: the act of assisting or allowing another person to plagiarise or to copy your own work.

Advice and activities are available to help you cite and quote your sources correctly, and avoid plagiarism. If you have not already done so, we suggest you work through the activities on the RMIT Learning Skills Unit website, <http://aps.eu.rmit.edu.au/lisu/resources/projects/plagiarism/index.html>.

I. Learning Resources

What will I need to access and read for this course?

Prescribed References:

Slocum, T.A., McMaster, R.B., Kessler, F.C. and Howard, H.H., 2004, *Thematic Cartography and Geographic Visualization*, Second Edition, Prentice-Hall.
<http://www.prenhall.com/slocum/index.htm>

Recommended References:

The Spatial Scientist (formerly *Cartography*), Mapping Sciences Institute, Australia / Spatial Sciences Institute
The Cartographic Journal, The British Cartographic Society.
SUC Journal, Society of Cartographers.
CaGIS, journal of the American Association on Surveying and Mapping
Cartographic Perspectives, journal of the North American Cartographic Information Society

J. Student Learning Program

W	Lecture	Tutorial	Concept, Design, Data Collection and Production			Due
			Studio	Field Trips	Atlas development	
1	<p>Introduction to course (15 mins) WEC Tuesday 08.30 – 08.45 12.11.31</p> <p>Cartographic language (15 mins) WEC Tuesday 08.45 – 09.20 12.11.31</p> <p>Cartographic Communication (1hr) WEC Thursday 11.30– 12.20 12.11.31</p> <p>Cartographer - skills and knowledge (1hr) WEC Thursday 12.30–13.20 12.11.31</p>		<p>Tutorial and practical exercise overview (1hr) Tutor Wednesday 13.30 – 15.20 12.10.37</p> <p>Map topic discussion Project configuration Data specification and assembly (2hrs) Tutor Wednesday 15.30 – 17.20 12.10.37</p>			
2	<p>Observation and selection of data (1hr) WEC Thursday 11.30– 12.20 12.11.31</p> <p>Product Design (1hr) WEC Thursday 12.30–13.20 12.11.31</p> <p>Atlas concepts (1hr) GP Thursday 15.30– 16.20 12.11.31</p>		<p>Base map compilation (2hrs) Tutor Wednesday 13.30 – 15.20 12.10.37</p> <p>Collection of relevant data and compilation materials (1hr) Tutor Wednesday 16.30 – 17.20 12.10.37</p>		<p>Atlas design and specification (2hrs) GP Wednesday 10.30 – 12.20 12.10.37</p>	<p>Map topic and product configuration report due for hand-in at <u>beginning</u> of Mapping Studio.</p> <p>Data specifications due for hand-in at <u>beginning</u> of Mapping Studio.</p>
3	<p>Map Design and Production Process for mapping (1hr) WEC Tuesday 08.30 – 09.20 12.11.31</p> <p>Psychology and perception (1hr) WEC Thursday 11.30– 12.20 12.11.31</p> <p>Design specifics – print, screen, Web, hybrid (1hr) WEC</p>		<p>Base map compilation (2hrs) Tutor Wednesday 13.30 – 15.20 12.10.37</p>	<p>Field trip brief (1hr) Tutor Wednesday 16.30 – 17.20 12.10.37</p> <p>Fieldtrip #1 (Friday, 8.30am – 5.30pm) WEC/LB/DH</p>	<p>Atlas design and specification (2hrs) GP Wednesday 10.30 – 12.20 12.10.37</p>	<p>Compilation materials available for review and use at <u>beginning</u> of Mapping Studio.</p> <p>Compiled base map available for use at <u>beginning</u> of field day.</p>

	<p>Thursday 12.30–13.20 12.11.31</p> <p>Atlas design (1hr) GP Thursday 15.30– 16.20 12.11.31</p>					
4	<p>Automated map production (1hr) MAB Thursday 11.30– 12.20 12.11.31</p> <p>Rule-based cartography (1hr) MAB Thursday 12.30–13.20 12.11.31</p>		<p>Design Brief outline User profile specification (2hrs) Tutor Wednesday 13.30 – 15.20 12.10.37</p> <p>Map information content specification Design brief production (2hrs) Tutor Wednesday 15.30 – 17.20 12.10.37</p>	<p>Fieldtrip #2 (Friday, 8.30am – 5.30pm) WEC/LB/DH</p>	<p>Atlas Studio (2hrs) GP Wednesday 13.30 – 14.20 12.10.37 <i>*Note time change for this week only</i></p>	<p>Base map with field data included available for use at <u>beginning</u> of Mapping Studio.</p>
5	<p>Prepress – design and specification (1hr) WEC Thursday 11.30– 12.20 12.11.31</p> <p>Psychology and production - balancing psychological issues with production realities (1hr) WEC Thursday 12.30–13.20 12.11.31</p>		<p>Design Workshop - overall map design development (2hrs) Tutor Wednesday 13.30 – 15.20 12.10.37</p> <p>Design Workshop - individual symbology - type - colour (1hr) Tutor Wednesday 15.30 – 16.20 12.10.37</p> <p>Design Workshop - mock-up (1hr) Tutor Wednesday 16.30 – 17.20 12.10.37</p>	<p>Fieldtrip #3 (Friday, 8.30am – 5.30pm) WEC/LB/DH</p>	<p>Atlas Studio (2hrs) GP Wednesday 10.30 – 12.20 12.10.37</p>	<p>Written design brief due for hand-in at <u>beginning</u> of Mapping Studio.</p> <p>Written user profile specification due for hand-in at <u>beginning</u> of Mapping Studio.</p> <p>Written design brief due for hand-in at <u>beginning</u> of Mapping Studio.</p>
6	<p>Communication Model and production (1hr) WEC Thursday 11.30– 12.20 12.11.31</p> <p>Print Considerations Thursday 12.30–13.20 12.11.31</p>		<p>Design Workshop - print considerations (2hrs) Tutor Wednesday 13.30 – 15.20 12.10.37</p> <p>Design Workshop - screen and Web considerations</p>		<p>Atlas Studio (2hrs) GP Wednesday 10.30 – 12.20 12.10.37</p>	<p>Completed design mockup due for hand-in at <u>beginning</u> of Mapping Studio.</p>

			(2hrs) Tutor Wednesday 15.30 – 17.20 12.10.37			
7	<p>Automated map production – trends and case studies (Part A) (1hr) MAB Thursday 11.30– 12.30 12.11.31</p> <p>Automated map production – trends and case studies (Part B) (1hr) MAB Thursday 12.30–13.20 12.11.31</p>	<p>Presentation of Assignment #1 results (1hr) TH Wednesday 13.30 – 14.20 12.10.37</p>	<p>Mapping workshop (1hr) Tutor Wednesday 14.30 – 15.20 12.10.37</p>		<p>Atlas Studio (2hrs) GP Wednesday 10.30 – 12.20 12.10.37</p>	<p>Assignment #1 - written report and presentation due for hand-in at beginning of Tutorial.</p> <p>Written screen and Web considerations profile due for hand-in at <u>beginning</u> of Mapping Studio.</p>
8	<p>Computers and Cartography (1hr) WEC Thursday 11.30– 12.20 12.11.31</p> <p>Prepress – digital processing (1hr) WEC Thursday 12.30–13.20 12.11.31</p>					<p>Written mapping specifications due for hand-in at <u>beginning</u> of Mapping Studio.</p>
9	<p>Marketing and selling maps (1hr) WEC Thursday 11.30– 12.20 12.11.31</p> <p>Maps and Decisions (1hr) WEC Thursday 12.30–13.20 12.11.31</p>	<p>Airline maps assessment Using maps (1hr) TH Wednesday 13.30 – 14.20 12.10.37</p>	<p>Mapping workshop (1hr) Tutor Wednesday 14.30 – 15.20 12.10.37</p>		<p>Atlas Studio (2hrs) GP Wednesday 10.30 – 12.20 12.10.37</p>	
10	<p>Using maps (1hr) WEC Tuesday 08.30 – 09.20 12.11.31</p> <p>Perception and creativity- mental maps (1hr) WEC Thursday 11.30– 12.20 12.11.31</p> <p>Map users' reality - age groups and perception (1hr) WEC Thursday 12.30–13.20 12.11.31</p>	<p>Presentation of Assignment #2 results (1hr) TH Wednesday 13.30 – 14.20 12.10.37</p>	<p>Mapping workshop (1hr) Tutor Wednesday 14.30 – 15.20 12.10.37</p>		<p>Atlas Studio (2hrs) GP Wednesday 10.30 – 12.20 12.10.37</p>	<p>Assignment #2 - written report and presentation due for hand-in at beginning of Tutorial.</p>

11		<p>LUG map: Under and above ground London (2hrs) TH Wednesday 13.30 – 15.20 12.10.37</p>	<p>Preparation of evaluation proforma (1hr) Tutor Wednesday 15.30 – 16.20 12.10.37</p> <p>Mapping Workshop (1hr) Tutor Wednesday 16.30 – 17.20 12.10.37</p>			<p>Completed print and Web maps due for hand-in and marking at beginning of Mapping Studio.</p>
12	<p>Map user - Reading maps (1hr) WEC Tuesday 08.30 – 09.20 12.11.31</p> <p>Reality - Maps and Propaganda (1hr) WEC Thursday 11.30– 12.20 12.11.31</p> <p>Review of Theory (1hr) WEC Thursday 12.30–13.20 12.11.31</p>	<p>Assessment of map skills packages (1hrs) TH Wednesday 13.30 – 14.20 12.10.37</p>	<p>Evaluation of individual maps (2hrs) Tutor Wednesday 14.30 – 16.20 12.10.37</p> <p>Mapping workshop (map folio discussion) (1hr) Tutor Wednesday 16.30 – 17.20 12.10.37</p>		<p>Atlas Studio (2hrs) GP Wednesday 10.30 – 12.20 12.10.37</p>	<p>Amended print and Web maps due for hand-in and marking at beginning of Mapping Studio.</p> <p>Written evaluation proformas due for hand-in at <u>beginning</u> of Mapping Studio. The proforma will be used in the session for map evaluation.</p> <p>Atlas design and specifications due at beginning of Atlas Studio.</p>
13	<p>Test Tuesday 08.30 – 10.00 12.11.31</p>		<p>Submission of map folio (1hr) Tutor Wednesday 13.30 – 14.20 12.10.37</p> <p>Map display Q and A (2hrs) WEC/Tutor Wednesday 14.30 – 16.20 12.10.37</p>			<p>Mapping Folio due for hand-in at beginning of Mapping Studio.</p> <p>Design poster due for mounting on display board at beginning of Mapping Studio.</p>

Version 3

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Professor William Cartwright March 1, 2007

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