



University of Ballarat

Mt Helen

School of Education

TD700/1 Information Technology Curriculum 1 2004-1

### **OBJECTIVES**

This unit will enable students to:

1. develop critical understandings of the importance of information technologies in relation to VCE work requirements, VCAL and the CSF
2. evaluate the place of Information Technology curriculum in different school systems
3. enable students to utilise Information Technology in a range of settings
4. implement a range of teaching approaches deriving from emerging technologies
5. design units of work following curriculum guidelines
6. become competent, professional teachers, working to ensure positive learning outcomes for students.
7. contribute to the development of Information Technology planning in schools

### **CONTENT**

1. The Information Technology revolution and its impact on learning and teaching.
2. The importance of Information Technology across secondary school curriculum and programmes.
3. Ethical practice with Information Technology.
4. Issues associated with the implementation of Information Technology in the curriculum.
5. Selecting applications for use in Information Technology classrooms.
6. Designing and implementing solutions to information problems.
7. Uses of Information Technology in a range of contemporary social, economic and political settings.
8. Developing effective classroom environments to support the effective teaching of Information Technology for all students and new pedagogies.
9. Curriculum designs in the CSF and VCE and VCAL.
10. Workshop series to enable skill acquisition across a range of contemporary Information Technology applications.
11. Approaches to curriculum development for information technologies from other school systems.

### **LEARNING TASKS**

1. Preparation of a range of learning tasks which implement Information Technology across VCE, VCAL and CSF
2. Critical appraisal of practices associated with teaching information technologies
3. Implementation and evaluation of a learning activity during the practicum

### **TEACHING STAFF**

The unit will be presented as two streams.

Online class	Clem Barnett (co – ordinator)
Workshops	Rupert Russell

There will be a rotation of activities in the unit. In **odd weeks** students will have two hours of class contact time with the workshops, and one hour with the Online class. In **even weeks**, students will have two hours of class contact time with the online class and one hour with the workshops.

## **ASSESSMENT**

<b>Learning Task</b>	<b>Assessment</b>	<b>Due</b>	<b>Weighting</b>
<p>Students will undertake a series of prescribed workshop activities based on applications suitable for use in an IT curriculum. These activities will enable students to</p> <ol style="list-style-type: none"> <li>1. plan Information Technology lessons addressing learning outcomes from the CSF II.</li> <li>2. plan Information Technology lessons addressing <i>Unit 1: Information Technology</i>, from the VCE Information Technology Study Design.</li> </ol>	<p>Satisfy the requirements of the CSF II and learning needs of students. Satisfy the requirements of VCAAB and enable students to meet assessment requirements. Criteria will be distributed.</p>	<p>CSF lesson: week 5</p> <p>VCE lesson: Week 10</p>	50%
<p>An online seminar presentation which critically explores an aspect of Information Technology as curriculum. The presentation will demonstrate analysis, the use of IT as a communication application and encourage participation. Presentations will be moderated by the presenter(s) and require logged input from the class.</p>	<p>Successful completion of the task based on the WebCT statement of criteria. Length: equivalent to 2000 words.</p>	On day of presentation	20%
<p>Students will critically reflect on their experiences as both learner and teacher, supported by readings. Weekly activities will be distributed using the communication tools provided in WebCT.</p>	<p>Regular submission of critiques to WebCT</p>	Weekly	30%

Grades will be allocated according to the descriptions provided in the Handbook.

All work is to represent the original endeavour of the presenter and be acknowledged. Work is subject to investigation by plagiarism detection software. Refer to the University policy on plagiarism.

Late submissions will be penalised, unless prior approval has been obtained, on appropriate documentation, from the Course Co-ordinator and Unit Co-ordinator.

Detailed requirements for each assessable task will be distributed in class.

## METHODOLOGY

q online reading, discussions and quizzes	q eLearning experiences using WebCT	q schools' experience
q computer workshops	q critical reflection	q personal reading

## LOCATION

Workshops [RR] are scheduled for T316 and will occupy two hours of the unit for weeks 1,3,5,7,9,11 (B Ed) and 15 (GDE).

Online classes [CB] are nominally located in T209/T208B but will require use of WebCT and allow for flexible learning opportunities in a learning community. This will occupy two hours of the unit for weeks 2,4,6,8,10, 12 (B Ed) and 16 (GDE).

## SCHEDULE OF CLASSES

Week	Online task WebCT	Online Seminar T209	Workshop B Ed T316	Workshop GDE T316
1 B Ed & GDE	Designing an IT curriculum for the new millennium. <i>Dede, C Emerging Influences of Information Technology on School Curriculum</i>  Time: Monday 11.30-12.30 in T209	.	Creating and Publishing Webpages  Time: Wednesday 2.30-4.30 in T316	Creating and Publishing Webpages  Time: Wednesday 2.30-4.30 in T316
2 B Ed & GDE	Australia and the Information Economy. The current state of play and trends 2000-2002. <i>NOIE statistical compendia</i>  Time: Wednesday 2.30-4.30 in T208B	What is the place of IT in a curriculum where learning technologies are integrated into all learning experiences? Consider which applications are the preserve of the IT class <a href="#">ICT Framework For The Future</a> Discuss the implications for IT curriculum in schools in a rapidly developing framework defined by key policy statements. Refer to Victorian and Commonwealth IT policy statements	Planning CSF II Lessons & Rubrics  Time: Monday 11.30-12.30 in T316	Planning CSF II Lessons & Rubrics  Time: Monday 11.30-12.30 in T316
3 B Ed & GDE	Labour Day		Shoot and edit a short Digital Video Time: Wednesday	Shoot and edit a short Digital Video Time: Wednesday

			2.30-4.30 in T316	2.30-4.30 in T316
4 B Ed & GDE	Critical Literacy or IT competencies? DEST " <i>ICT Standards for Teachers and students</i> "  Time: Wednesday 2.30-4.30 in T208B	Critique the arguments presented for a competency driven IT curriculum. Draw on the ACT approach, the ICDL and the NSW CSA6 Project in your response.	GoldWave Audio Editor  Time: Monday 11.30-12.30 in T316)	GoldWave Audio Editor  Time: Monday 11.30-12.30 in T316
5 B Ed & GDE	Approaches to teaching IT in the classroom. Where is the focus? Kock <i>Bringing a multidisciplinary perspective of IT to the classroom</i> Time: Monday 11.30-12.30 in T209		Visual Basic 6  Time: Wednesday 2.30-4.30 in T316	Visual Basic 6  Time: Wednesday 2.30-4.30 in T316
6 B Ed & GDE	Equity and digital divides. BECTA " <i>The Digital Divides</i> " Time: Wednesday 2.30-4.30 in T208B	Is the digital divide a matter of choice or embedded inequity? Does it exist in schools? Why can't IT address the divide?	MicroWorlds LOGO  Time: Monday 11.30-12.30 in T316	MicroWorlds LOGO  Time: Monday 11.30-12.30 in T316
7 B Ed & GDE	Knowledge Management systems The use of leading-edge information technologies to support KM. Time: Monday 11.30-12.30 in T209		Lego RoboLab  Time: Wednesday 2.30-4.30 in T316	Lego RoboLab  Time: Wednesday 2.30-4.30 in T316
		Easter Break		
8 B Ed & GDE	McLuhan says "Technology creates a human environment": what does IT do to a school? Provenzo " <i>Computing, culture and educational studies</i> " Time: Wednesday 2.30-4.30 in T208B	Explore the way a school defines itself around the transformative potentials of IT. Draw on business for parallels and possibilities which could be used in schools.	Panoramas using UleadCool 360  Time: Monday 11.30-12.30 in T316	Panoramas using UleadCool 360  Time: Monday 11.30-12.30 in T316
9 B Ed & GDE	What are the boundaries that define the work of an IT teacher and how are they defined? Lawson " <i>Introducing</i>		Fractals using UltraFractal	Fractals using UltraFractal

	<i>ICT into schools: blurring the boundaries</i> Time: Monday 11.30-12.30 in T209		Time: Wednesday 2.30-4.30 in T316	Time: Wednesday 2.30-4.30 in T316
10 B Ed & GDE	Cyber-Security Acceptable use policies Ethics and Plagiarism. <i>The Victorian Plagiarism Pilot</i> Time: Wednesday 2.30-4.30 in T208B	What are the core issues of ethics teachers of IT are likely to confront in the school? How can they address these?	Excel Markbook  Time: Monday 11.30-12.30 in T316	Excel Markbook  Time: Monday 11.30-12.30 in T316
11 B Ed	Impact of Mobile Technology. Teachers are only just beginning to explore what the notion of "mobility" for students might mean when mediated through computing and communications technologies. Geser " <i>Towards a Sociological Theory of the Mobile Phone</i> " Time: Monday 11.30-12.30 in T209	.	Macromedia Flash HotSpots  Time: Wednesday 2.30-4.30 in T316	TX 831 Teaching Round
12 BEd	Elearning and the N-gen. Challenges to the neighbourhood school. Lenhart " <i>Teenage life online</i> " Time: Wednesday 2.30-4.30 in T208B	<i>Because of the expanded educational opportunities and choices, teaching, and learning, in an eLearning context is an onerous responsibility</i> (Garrison & Anderson, 2003) Explore the origin and implication of this statement	Rotoscoping with Macromedia Flash  Time: Monday 11.30-12.30 in T316	TX 831 Teaching Round
13	No class	No class	Other Method Rounds	TX 831 Teaching Round
14	"No class	No class	Other Method Rounds	TX 831 Teaching Round
15 GDE	Impact of Mobile Technology. Geser " <i>Towards a Sociological Theory of the Mobile Phone</i> " Time: Monday 11.30-12.30 in T209		Other Method Rounds	Macromedia Flash HotSpots  Time: Wednesday 2.30-4.30 in T316

16 GDE	Elearning and the N-gen. Challenges to the neighbourhood school. Lenhart "Teenage life online" Time: Wednesday 2.30-4.30 in T208B	<i>Because of the expanded educational opportunities and choices, teaching, and learning, in an eLearning context is an onerous responsibility</i> (Garrison & Anderson, 2003) Explore the origin and implication of this statement	University Exam Week	Rotoscoping with Macromedia Flash  Time: Monday 11.30-12.30 in T316
-----------	--	--	----------------------	--

Further details will be provided in class by the lecturers responsible for each of the learning sequences.

**Students are expected to read widely and independently, drawing on library resources from the catalogue and data bases. This reading is to be reflected in submissions.**

## REFERENCES

Board of Studies. (2000). <u>Curriculum and standards framework II: Technology</u> . Carlton, Victoria
Breck, J (2002) <u>How we will learn : in the 21st century</u> Lanham, Md. : Scarecrow Press
Burton, K (2002) <u>Communicating in an IT environment</u> Tertiary Press
Canberra : National Office for the Information Economy, (2002) <u>Advancing Australia : the information economy progress report 2002</u>
Castells M (2000) <u>The Rise of the Network Society</u> Oxford Blackwell 2 <sup>nd</sup> ed
Coghlan D (2001) <u>Getting IT right : information and communication technology</u> . Skills book 3, levels 5 plus Nelson Thornes
Crawford R (1997) <u>Managing IT in secondary schools</u> London Routledge
Garrison D R & Anderson T (2003) <u>E-Learning in the 21<sup>st</sup> Century</u> Routledge Falmer
Goman C K (2000) <u>The human side of high-tech : lessons from the technology frontier</u> New York ; Chichester : John Wiley
Goodson, I. (2002) <u>Cyber spaces/social spaces : culture clash in computerized classrooms</u> New York : Palgrave
Gordon, D. (2000) <u>The digital classroom : how technology is changing the way we teach and learn</u> Cambridge, MA : Harvard Education Letter
Greening T (2000) <u>Computer science education in the 21st century</u> . Berlin ; New York : Springer
Hackney, R & Dunn, D. (2000) <u>Business information technology management : alternative and adaptive futures</u> New York, N.Y. : St. Martin's Press
<u>Information technology : study design</u> [edited by Ruth Learner]. East Melbourne, Vic. VCAA 2002.
Laudon, K C (2003) <u>E-commerce : business, technology, society</u> Addison Wesley
Lax S ed (2001) <u>Access Denied in the Information Age</u> Wiltshire Palgrave
Leask M (2001) ed <u>Issues in teaching using ICT</u> London Falmer
Potts, C (2000) <u>IT: VCE information technology</u> Melbourne : Nelson ITP
Potts, C (2003) <u>Information processing and management. VCE IT units 3 and 4</u> Nelson Australia
Potts, C (2003) <u>Information processing and management. VCE IT units 1 and 2</u> Nelson Australia
Powers, G K. (2003) <u>Computer Skills Information and Communication Technology Book 2</u> Blueprint
Reynolds G (2003) <u>Ethics in information technology</u> Thomson Course Technology
Simon J (2001) <u>Introduction to information systems</u> New York ; Chichester : Wiley
Smith, H Fingar P (2003) <u>Business process management : the third wave</u> Meghan-Kiffer
Solomon, G et al (eds) (2003) <u>Toward Digital Equity</u> Pearson
Stallard C (2001) <u>The promise of technology in schools : the next 20 years</u> Lanham, Scarecrow Press
Tapscott D (1998) <u>Growing up digital. The rise of the Net Generation</u> New York McGraw Hill
Walsham G (2001) <u>Making a world of difference : IT in a global context</u> Chichester : Wiley
Yee Fen Lim (2002) <u>Cyberspace law : commentaries and materials</u> Melbourne OUP