
SCSSE

**School of Computer Science and Software Engineering
Faculty of Informatics**

CSCI114 Procedural Programming Subject Outline Spring Session 2009

Head of School –Professor Willy Susilo, Student Resource Centre, Tel: (02) 4221 3606

GENERAL INFORMATION

Subject Coordinator

Telephone Number:	Miss Gene Awyzio 02 4221 4090
Email:	gene@uow.edu.au
Location:	3.106

Miss Awyzio's consultation times during session:

Day	Time
Monday	10:30 - 12:30
Tuesday	10:30 - 12:30

Lecturer

Telephone Number:	Mr Daniel Saffioti 02 4221 4357
Email:	dfs@uow.edu.au
Location:	3.202

Mr Saffioti's consultation times during session:

Day	Time
Tuesday	12:30 – 14:30
Thursday	16:00 – 18:00

Subject Organisation

Session:	Spring Session, Wollongong Campus
Credit Points	6 credit points
Contact hours per week:	4 hours lectures, 2 hours Computer lab
Lecture Times & Location:	Lecture A 14:30-16:30 Tues, 35.G20 Lecture B 13:30-15:30, Fri 25.107
Tutorial Day, Time and Location can be found at:	http://www.uow.edu.au/student/timetables/index.html

Students should check the subject's web site regularly as important information, including details of unavoidable changes in assessment requirements will be posted from time to time via e-Learning space <http://www.uow.edu.au/student/>. Any information posted to the web site is deemed to have been notified to all students.

Subject Description

CSCI114 introduces the procedural approach to program design and implementation. Covers basic language constructs for defining variables of built-in types, flow control constructs and simple I/O. Explores functional decomposition as a design technique, and the implementation of functions. Introduces simple user-defined data types and aggregates.

Subject Objectives

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

1. Effectively use basic C++ functionality to code simple algorithms
2. Analyse and explain the behaviour of simple programs
3. Design, implement, test and debug simple programs
4. Apply the techniques of structured decomposition to break a program into smaller pieces
5. Display a working knowledge of good programming style

Graduate Qualities

This subject will continue to the following graduate qualities:

Informed
Problem Solvers

Further information can be found at:

<http://www.uow.edu.au/informatics/scsse/current/SubjectInformation/UOW049401.html>

Attendance Requirements:

It is the responsibility of students to attend all lectures/tutorials/labs/seminars/practical work for subjects for which you are enrolled. It should be noted that the amount of time spent on each 6 credit point subject should be at least 12 hours per week, which includes lectures/tutorials/labs etc.

Satisfactory attendance is deemed by the University, to be attendance at approximately 80% of the allocated contact hours.

Attendance rolls will be kept for lectures, tutorials and laboratories. If you are present for less than 80% and would have otherwise passed you need to apply for student academic consideration, otherwise a TF (technical fail) grade will be recorded.

Students MUST attend their **allocated** tutorial unless they have the written permission of the subject coordinator.

Method of Presentation:

In order to maximize learning outcomes, it is strongly recommended that students attend all lectures.

CSCI114 and MCS9114 have a joint web site, which will be made available through the CSCI114/MCS9114 website on e-Learning (<http://www.uow.edu.au/student/elearning>).

This subject comprises lectures and laboratory classes. Laboratory classes will relate to the lecture topics. Laboratory classes commence in week 2. Lecture material, programming examples and Laboratory Exercises will be available from the subject's website prior to the lectures for each topic. Students are free to print their own copies of these notes and programs for perusal before the lectures. However, as the notes will not be the same as the presentations given in lecture times and may not include all of the examples and explanations given in lectures, attendance at lectures will be required.

Laboratory Procedures

- Students must abide by the laboratory rules posted on the wall of the Laboratory.
- Students may use the computers outside their designated laboratory times provided the laboratory is open and no other laboratory class is scheduled. If another class is scheduled for the laboratory, you may enter no earlier than 20 minutes after the scheduled starting time and ask the supervisor whether any vacant machines may be used.
- To complete the assessment component of the subject, students need to design and implement programs in C++ (using the GNU C++ compiler). There is no requirement to carry out the assignment in the laboratories. You may still work at home to develop solutions. However, submissions are via the labs, and assistance in laboratories will be for programs demonstrable in a Linux/UNIX environment.
- Copying software from another person is in breach of copyright, as is selling original disks of software whilst retaining a copy. Exchanging disks also leads to the introduction of software

- viruses, which may corrupt the system.
- Students are advised to purchase a flash drive. It can be used to keep current and archive copies of assignments. Loss or damage of disks is no excuse for failure to submit assignments. It is the student's responsibility to make sure that their assignments can be submitted on time.
- Students should do their laboratory exercises during the laboratory time (see assessment for more detail).
- Assignments can be done in the lab if the laboratory work has been completed. However, it is the student's responsibility to work outside the laboratory time and make sure that the assignments can be submitted on time.

Lecture Schedule:

A proposed Lecture schedule for the subject is as follows:

Week	Topic
1	Introduction to computing concepts.
1	Introduction to computer programming languages
2	Writing, editing, compiling and linking programs
2	Internal representation of data.
2	Numbering systems
3	Introduction to programming in C++
3	Programming style
4	Introduction to algorithms
4	C++ Data Types, operators and expressions
5	Simple input/output
6	Control Structures: Conditional
6	Control Structures: Repetition
7	Modular programming with functions
8	Variable Storage Classes
9	Arrays
10	C-Strings
11	Input/output formatting and files
12	User defined data types e.g. typedef and enum
13	Recursion

Changes to the above schedule will be posted via e-Learning space <http://www.uow.edu.au/student/>. Any information posted to the web site is deemed to have been notified to all students.

Subject Materials:

Any readings/references are recommended only and are not intended to be an exhaustive list. Students are encouraged to use the library catalogue and databases to locate additional readings

Recommended Textbook(s):

- Tony Gaddis Starting Out with C++: From Control Structures through Objects, 6th Edition, Pearson, 2009.
- CSC114 Lab Manual. Available via e-learning site.

Other Resources:

- Dean DeFino and Michael Bardzell Lab Manual to Accompany the Standard and Brief Versions of Starting Out with C++, 6th Edition, Pearson, 2009
- D. S. Malik C++ Programming: Program Design Including Data Structures, Thompson Learning, Third Edition, 2006
- Judy Scholl C++ Programming: From Problem Analysis to Program Design, Lab Manual, 2005
- Walter Savitch Problem Solving with C++: The Object of Programming, Third Edition, Addison-Wesley, 2001

- Gary J. Bronson Program Development and Design Using C++, Second Edition, Thompson Learning, Brooks/Cole, 2000
- Bjarne Stroustrup The C++ Programming Language, Third (Hard Cover) Edition, Addison-Wesley, 2000
- Forouzan and Gilberg Computer Science: A Structured Programming Approach Using C++, Nelson Learning, 2000

Assessment:

This subject has the following assessment components.

ASSESSMENT ITEMS & FORMAT	% OF FINAL MARK	GROUP/ INDIVIDUAL	DUE DATE
Assignment 1	6%	Individual	Week 3
Online Multiple Choice quiz	5%	Individual	Week 4 (closed book) during laboratory
Assignment 2	6%	Individual	Week 6
Assignment 3	6%	Individual	Week 8
Online Multiple Choice quiz	5%	Individual	Week 10 (closed book) during laboratory
Assignment 4	6%	Individual	Week 11
Practical Test	5%	Individual	Week 12 Lab
Assignment 5	6%	Individual	Week 13
Lab Journal	5%	Individual	Friday 17:00 Weekly
Exam	50%	Individual	During examination period (closed book)

Notes on Assessment:

All assignments are expected to be completed independently. Plagiarism may result in a FAIL grade being recorded for that assignment.

The following details specific points to note for each assessment item.

- (a) There will be 5 programming assignments in CSC114. These will contain programming problems and/or complete programs that exercise particular skills as you learn them. Your completed attempts must be submitted electronically via the UNIX/Linux `submit` system. **No submission via email will be accepted.** Naturally for each assignment there will be an implementation component along with two written sections. Each assignment MUST be accompanied with the following journals:
 - a. **Scratch pad:** where students write down what they are doing, new code learnt, errors made and corrections, etc. This will not be marked but should be used by the students as a basis for the formulation of their formal journal entries for each coding task.
 - b. **Coding journal:** This will be worth 1 mark within each coding assignment. This journal will summarise what the student has learnt during each coding assessment as well as any pitfalls and problems encountered by the student and how those problems were overcome. Further details of what should be included in the journals will be provided during lectures. This journal is meant to help students move towards a reflective approach to learning.
- (b) All assignments are to be completed independently. Plagiarism may result in a zero mark being recorded for that assignment.
- (c) Any changes to assignment due dates will be posted on the website of the subject. It is each student's responsibility to regularly check the subject's website.
- (d) Assignments are to be submitted electronically before the scheduled time, normally by Friday, 11.59pm

- (e) As assignments are to assess a student's understanding of course material, each assignment must be solved using only material covered up to that point in the course (unless otherwise explicitly stated in the assignment).
- (f) Any assignment program submitted which does not produce the required result on the laboratory Linux system cannot be awarded more than **half marks**. Programs that do not compile on the laboratory Linux system due to syntax errors may receive **no** marks, but feedback on the student's errors will still be provided.
- (g) Late assignments will be marked but the mark awarded will be reduced by 25% for each day late. Assignments will not be accepted more than three days late. Penalties may be waived if student academic consideration or an extension has been granted by your subject coordinator. Such an extension may be granted by the subject coordinator. The subject coordinator has the full right to deny/award the extension. Each student must apply for the extension through the SOLS system **before** the assignment due date. In many circumstances, students may be asked to produce documentation to support his/her case.
- (h) Assignments will be returned electronically. Enquiries about the marks can be made to the subject coordinator, within a **maximum of one week after the assignment is returned**. After one week, **no marks can be changed**.
- (i) Weekly Laboratory Exercises usually start with one exercise labeled **Task 0** which should be completed before the respective lab class. Most of the other exercises are to be completed in the lab class. Any remaining weekly exercises not completed in class should be completed during the student's own study time. This forms the basis of your weekly lab journal.
- (j) The *lab journal* is an online record of a student's lab activities and a record of answers, etc to the problems presented in lab sessions. It is not beyond the realm of possibility that a student may also document issues faced in reference to the assignment during the lab in such a diary. Once submitted, lab journal entries cannot be edited. Students should keep a record of what they are doing so that they can assess their progress through out the session. Lab journals will be marked by on a satisfactory/ unsatisfactory basis during the semester with a mark being declared for this assessment item out of 5 at the end of semester.
- (k) There will be a practical test conducted in the labs during week 12. Exact details as to its format will be communicated during semester.
- (l) There will be two multiple choice tests run during the semester. These will be run online and completed during lab time.

Electronic Submission of Assessment Items:

Unless otherwise notified by the subject coordinator, all written assignments must be submitted electronically.

Procedures for the return of assessment items:

Assessment items will be marked by the lecturers and tutors and returned electronically (via email) to the students. Returned documents can be viewed using an PDF reader. Under normal circumstances work will be returned within two weeks of submission.

Penalties for late submission of assessment items:

Penalties apply to all late work, except if student academic consideration has been granted. Late submissions will attract a penalty of 25% of the assessment mark.

This amount is per day including weekends.

Work more than three (3) days late will be awarded a mark of zero.

Tutorial/Lab Closure Policy

If for any reason, the number of students in a tutorial or lab falls below a sustainable enrolment level, as determined by the Head of School, tutorials/labs offered for that subject may be collapsed or deleted.

You will have to attend the new tutorials/lab if this closure affects the one you are attending.

We will endeavour to make this decision no later than Week 4 of session.

Supplementary Exams

Supplementary Exams will be dealt with in accordance with student academic consideration policy (<http://www.uow.edu.au/about/policy/studentacademicconsiderationpolicy.pdf>) 9.2 Timing of Supplementary Exams.

While the School normally grants supplementary exams when the student does not sit the standard exam for an acceptable reason, each case will be assessed on its own merit and there is no guarantee a supplementary exam will be granted. If a supplementary exam is granted, you will normally be notified via SOLS Mail the time and date of this supplementary exam. You must follow the instructions given in the email message.

Please note that if this is your last session and you are granted a supplementary exam, be aware that your results will not be processed in time to meet the graduation deadline.

Student Academic Consideration Policy

The School recognises that it has a responsibility to ensure equity and consistency across its subjects for all students. Sometimes, in exceptional circumstances, students need to apply for student academic consideration in order to complete all assessable work.

The University applies strict criteria to the granting of student academic consideration. Before applying for student academic consideration, students should carefully read the University's policy which can be found at: <http://www.uow.edu.au/about/policy/studentacademicconsiderationpolicy.pdf>.

Plagiarism

When you submit an assessment task, you are declaring the following

1. It is your own work and you did not collaborate with or copy from others.
2. You have read and understand your responsibilities under the University of Wollongong's policy on plagiarism.
3. You have not plagiarised from published work (including the internet). Where you have used the work from others, you have referenced it in the text and provided a reference list at the end of the assignment.

Students must remember that:

Plagiarism will not be tolerated.

Students are responsible for submitting original work for assessment, without plagiarising or cheating, abiding by the University's policies on Plagiarism as set out in the University Handbook under University Policy Directory and in Faculty handbooks and subject guides. Plagiarism has led to the expulsion from the University.

Student Academic Grievance Policy

The School aims to provide a fair, equitable and productive learning environment for all its students. The Student Academic Grievance Policy seeks to support the achievement of this goal by providing a transparent and consistent process for resolving student academic grievances.

Any student who has a grievance over a result should obtain a Faculty of Informatics Appeal Against Decision or Action Affecting Academic Experience form from the Informatics Student Enquiry Centre. (<http://www.uow.edu.au/content/groups/public/@web/@inf/@faculty/documents/doc/uow017433.pdf>)

This subject outline can be found at: <http://www.uow.edu.au/informatics/scsse/current>

The student should firstly take the form to the marker/lecturer to discuss the matter and, if the student is still not satisfied, s/he should take the next step as outlined on the form.

Once the grievance has been considered by the Faculty, if the student still feels the situation has not been fully resolved s/he may consult the Dean of Students. However, the Dean of Students can have no input into the academic judgment of the lecturer and can only review the grievance to ensure proper procedure has been followed.

Relevant University Policies, procedures and students services:

For more information students must refer to the Faculty handbook, online references or consult the UOW policy in full at <http://www.uow.edu.au/handbook/courserules/studacgrievpol.html> which contains a range of policies on educational issues and student matters.

This outline should be read in conjunction with the following documents:

Code of Practice - Teaching and Assessment http://cmsweb.uow.edu.au/content/groups/public/@web/@gov/documents/doc/uow058666.pdf	Code of Practice - Students http://www.uow.edu.au/about/policy/UOW058664.html
Code of Practice-Honours http://www.uow.edu.au/about/policy/UOW058661.html	Acknowledgement Practice Plagiarism will not be tolerated: http://www.uow.edu.au/about/policy/UOW058648.html
Key Dates http://www.uow.edu.au/student/dates.html	Student Academic Consideration Policy: http://www.uow.edu.au/about/policy/UOW058721.html
Course Progress Requirements: http://www.uow.edu.au/student/mrp/index.html	Graduate Qualities Policy: http://www.uow.edu.au/about/teaching/qualities/index.html#_The new UOW
Academic Grievance Policy (Coursework and Honours students) http://www.uow.edu.au/about/policy/UOW058653.html	Non-Discriminatory Language Practice and Presentation http://www.uow.edu.au/about/policy/UOW058706.html
Occupational Health and Safety http://www.uow.edu.au/about/policy/UOW016894.html	Ownership of Work & Intellectual Property Policy: http://www.uow.edu.au/handbook/generalcourserules/UOW028651.html
Human Research Ethics Committee: http://www.uow.edu.au/research/rso/ethics/human/	Rules for student conduct: http://www.uow.edu.au/about/policy/UOW058723.html
Independent Learners' Introductory Program http://www.uow.edu.au/student/attributes/ilip/	Informatics Faculty Librarian, Ms Annette Meldrum, phone: 4221 4637, email: ameldrum@uow.edu.au
Student Support Services: http://www.uow.edu.au/student/services/ Informatics Faculty SEDLO (Student Equity and Diversity Liaison Officers) Virginie Schmelitschek, phone 4221 3833, virginie@uow.edu.au	SCSSE Internet Access & Student Resource Centre http://www.uow.edu.au/informatics/scsse/current/UOW024466.html
SCSSE & SISAT Computer Usage Rules http://www.uow.edu.au/informatics/common/UOW024457.html	SCSSE Subject Outlines http://www.uow.edu.au/informatics/scsse/current/UOW060172.html