

Curtin College

in association with



Curtin University

OOPD1001 - Object Oriented Program Design

UNIT OUTLINE

Semester 1, 2015

ESSENTIAL ADMINISTRATIVE INFORMATION

Unit Code:	OOPD1001
Unit Title:	Object Oriented Program Design
Credit Value:	25
Pre-Requisite:	NIL
Co-Requisite:	ISEN1000
Additional Requirements:	NIL
Unit Status	Note: if you fail this unit three times then you may be terminated as per Progress and Attendance Policy.
Ancillary Fees and Charges	All fee information can be obtained through: <ul style="list-style-type: none">• the Curtin College website or• Curtin Brochure• Level 1 Reception.
Unit Website	Moodle via the Student Portal is the unit's website. Students can access the Student Portal via the College's website: www.curtincollege.edu.au
Tuition Pattern	Three (3) hours of Lecture per week Two (2) hours of Tutorial per week.
Study Load	It is expected that a student will spend 12 hours per week (total 144 hours) on this unit. Allowing for lectures and practicals, students should spend a minimum of 7 hours study in their own time.
Mobile Phones	Mobile phones must be switched off when you are in a class.

TEACHING STAFF

Lecturer's Name:

Mark Upston

Email Address:

upst@learning.cic.wa.edu.au

Your lecturer will assist you with your learning and any problems or difficulties you may be experiencing while undertaking this unit. They will mark your assignments and provide feedback in relation to your progress in this unit. You will be able to contact your lecturer through the Student Portal. Your lecturer is also available for an extra hour per week for individual consultation. Please check with your lecturer for their availability.

Consultation times are also listed on Moodle under the unit name.

UNIT COORDINATOR / PROGRAM COORDINATOR

Every unit also has a person who is responsible for the overall administration of that unit. This person is the Unit Coordinator. If you cannot contact the person who is teaching you (named above) or if you have

further queries about this unit, you may wish to contact the Unit Coordinator for this unit or the Program Coordinator for the Course. Their contact details are below:

Unit Coordinator's Name:

Mark Upston

Email Address:

upst@learning.cic.wa.edu.au

Program Coordinator's Name: Robert Ball

Email Address:

Robert.Ball@curtincollege.edu.au

INTRODUCTION

Welcome to Object Oriented Programming Design 110. This unit forms a fundamental foundation for your computing studies. It aims to teach the student how to program in any object oriented programming language. It is concerned with the overall design process, not just getting a program to work.

Lecture and practical attendance is vital to any student expecting to pass this unit. If you are interested in Java script or web design then this is NOT the unit you should be considering. The aim is for this unit to become the first step in a career involved in the design and implementation of commercial software.

UNIT SYLLABUS

Introduction to Unix. This unit introduces students to Object Oriented Algorithm Design and how to implement software designs in the Java programming language. Topics covered include: Compiling and executing a Java program, Primitive data types, Numeric expressions, how to design and implement sub modules, the principles behind algorithm control structures and their implementation in Java, object-oriented programming, message passing, inheritance and abstract classes. Implementation of object oriented programming in Java.

LEARNING OUTCOMES

On successful completion of this unit the expected learning outcomes for a successful student and the associated Curtin graduate attributes developed or assessed in this unit are summarized in the tables below

	LEARNING OUTCOMES
LO1	Identify appropriate primitive data types required for the translation of pseudo code algorithms into Java.
LO2	Design and implement simple non-object oriented algorithms
LO3	Design simple classes and implement them in Java.
LO4	Design and implement classes that are associated via class Inheritance.
LO5	Reflect on design choices and communicate design decisions in a manner appropriate to the audience.

Assessments / learning outcomes	GRADUATE ATTRIBUTES								
	Discipline Knowledge	Thinking Skills	Information Skills	Comm. Skills	Technology Skills	Learning to Learn	International Perspective	Cultural Understanding	Professional Skills
LO1	✓	✓							
LO2	✓				✓				
LO3		✓			✓				
LO4		✓			✓				
LO5				✓		✓			

LEARNING ACTIVITIES

The weekly tasks for this subject are:

Watch the lecture video and read the lecture notes for the week.

Read the next chapter of the pdf file text book (see text book section).

Attend the class where we will extend from the lecture video and use examples to discuss the concepts relevant for each week's lecture, and put the concepts into practice. This is where most of the learning will occur so understand that successful completion of the weekly worksheets is the key to success in this unit.

Work on the assignment on a weekly basis.

LEARNING RESOURCES

COURSE NOTES / MOODLE

Course notes, assessment details such as due dates, weighting of assessments and other details relating to course material are accessed via the Moodle tab on your Student Portal which can be accessed via the Curtin College website – www.curtincollege.edu.au

TEXT BOOK

You will need the following textbook in order to complete this unit:

Robey M., A Simple and Generic Introduction to Object Oriented Algorithm Design. Available free on Moodle.

Recommended Texts:

You do not have to purchase the following textbooks but you may like to refer to them.

Farrell, J., (2007) Java Programming, ISBN 1423901282, Cengage Learning.

ASSESSMENT DETAILS

The assessment for this unit consists of the following items.

Assessment Tasks	Worth	Due	Unit Learning Outcome Assessed
Quizzes	20%	Weekly	1, 2, 3, 4 & 5
Test one	10%	Week 5	1 & 2
Test two	10%	Week 8	3
Assignment	10%	Week 11	3, 4 & 5
Final exam	50%	TBA	1, 2, 3 & 4
TOTAL	100%		

Unless otherwise indicated, all assessments are to be completed as **individual assessments**, not as group assessments.

Assessment One (Quizzes)

Due: Weekly

Weighting: 20%

Eight quizzes will be held during the trimester. These will cover the previous weeks topic AND the current weeks reading. They will be held in the first 30 minutes of class ie. starting at 8:00am beginning in week 2.

Assessment One Marking Criteria

Quizzes will be marked for correctness and completeness.

Assessment Two (Test)

Due: Week 5

Weighting: 10%

Test 1 will be conducted in the lecture in week 5 starting at 8:00AM. It will be based upon the tutorial exercises and lecture notes. Students should attempt the mock tests and seek feedback on them well before the actual test. NO MAKEUP (LATE / MISSED) TESTS WILL BE GIVEN.

Assessment Two Marking Criteria

The questions in this test will be marked for correctness and attention to detail. Marked tests will be handed back within two weeks.

Assessment Three (Test)

Due: Week 8

Weighting: 10%

Test 2 will be conducted in the lecture in week 8 starting at 8:00AM. It will be based upon the tutorial exercises and lecture notes. Students should attempt the mock tests and seek feedback on them well before the actual test. NO MAKEUP (LATE / MISSED) TESTS WILL BE GIVEN.

Assessment Three Marking Criteria

The questions in this test will be marked for correctness and attention to detail. Marked tests will be handed back within two weeks.

Assessment Four (Programming Assignment)

Due: Week 11

Weighting: 10%

Students will undertake a programming assignment. Part of the assignment submission includes weekly signoff for reading the textbook and completing the worksheet exercises. The assignment must be submitted electronically (via Moodle) by the 5PM Friday in week 11.

Assessment Four Marking Criteria

The assignment will be marked for correctness, attention to detail, originality and knowledge of the assignment nuances.

Assessment Five (Examination)

Due: Exam Week

Weighting: 50%

The exam will cover all lectures, practical work and assignments. It may also include related subject matter from the textbook or suggested additional reading.

Assessment Five Marking Criteria

The exam questions will be marked for both correctness and completeness.

Passing Criteria

In order to pass the unit, a student:

- must complete all practical exercises, and
- must achieve at least 50% in the exam, and
- must have an overall unit assessment of at least 50%

GUIDELINES FOR ASSESSMENT SUBMISSION

All assignments must be accompanied by the Curtin College Assignment Coversheet which can be downloaded from the Student Portal – **[Forms & Info/Forms and Documents/ Assignments]**

All assignments must be submitted by the time on the day of the week due as specified in the assignment requirements.

Assessments must be submitted in the specified format to Reception between 8.00am and 4.30pm (Monday – Thursday; 8.00am – 4.00pm on Friday) by the due date. Out of hours submissions should be left in the drop box in the second floor staffroom. The submission time is indicated by the date stamped by Reception on the assignment or the time that electronic submission is recorded.

Before submitting any assignment for marking, work through the following checklist to help ensure you are not plagiarising:

I HAVE:

- ✓ Provided in-text references for all information (including pictures, graphs, tables etc) taken from sources.
- ✓ Included a reference list of all sources cited in my assignment.
- ✓ Shown the original wording of sources as quotations

I HAVE NOT:

- ✓ Used any other student's work in my assignment.
- ✓ Used information or material from the internet, databases or other sources without referencing.
- ✓ Copied any information from any source and presented it as my own.

To avoid plagiarism, make sure you tick all 6 boxes.

All forms of cheating, plagiarism or collusion are regarded seriously and could result in penalties including loss of marks, exclusion from the unit or cancellation of enrolment.

LATE SUBMISSIONS AND REQUESTS FOR EXTENSIONS

Late work will be accepted without penalty if accompanied by a medical certificate for the relevant period or equivalent documentation in the case of a serious non-medical reason but you must contact your lecturer via email prior to the assignment due date.

Students will have 10% of the total assessment mark allocated for the assessment deducted for each calendar day the assessment is late without prior negotiation with your lecturer. For example if an assessment item is worth 20 marks, 2 marks will be deducted from the student's mark awarded, for each calendar day late.

Assessments will not be marked if they are submitted more than 7 calendar days after the due date (or revised due date if an extension has been granted). Work not submitted after this time (due date plus 7 calendar days) may result in an NC (Fail – Incomplete) grade being awarded for the module.

Extensions must be negotiated prior to the assessment due date as they will not be granted after submission date. Extensions may be granted by the Lecturer or Unit Coordinator or Program Coordinator for:

- Medical grounds supported by a medical certificate;
- Psychological grounds supported by a letter from Curtin University Counselling or an appropriate registered health professional;
- Equity considerations as requested by a Counsellor (Disability) or Student Welfare;
- Compassionate grounds.

Any other extenuating circumstances require approval of the Unit Coordinator or Program Coordinator and will require additional supporting documentation.

Applications for extensions should be submitted via email to the lecturer, who will then notify the student of the outcome of the request by email.

REFERENCING STYLE

Students should use the **CHICAGO 16th Edition** referencing style when preparing assignments. More information can be found on this style from the Library web site:

http://library.curtin.edu.au/research_and_information_skills/referencing/index.html

ASSESSMENT MARKING

Students should allow a 2 week marking turnaround for written assessments.

SUPPLEMENTARY ASSESSMENTS

A supplementary assessment may be granted to a student by the Board of Examiners in order to provide an additional opportunity for a student to pass a unit. If a student passes a supplementary assessment their

total mark will not change but their grade becomes a pass grade (PX – Pass with Supplementary). Supplementary assessments will be conducted in the orientation week of the next study period unless otherwise advised by the College and students must be available to sit the assessment at this time otherwise the offer will be withdrawn. Students who have qualified for a supplementary assessment will be notified by e-mail. The exception to this rule is where a supplementary assessment is offered for a service taught unit, in which case Curtin University will determine the date.

For more information please refer to the Curtin College's Supplementary Assessment Policy which is located under Policies and Procedures on the College's website: <http://www.curtincollege.edu.au>

ACADEMIC INTEGRITY AND PLAGIARISM

Curtin College is committed to ensuring that all students behave with academic integrity. Therefore, it is essential that you understand the principles underlying academic integrity and behave in a manner according to these principles. It is expected that students act honestly when they undertake all learning and assessment tasks.

You must be aware of the meaning of the following terms:

- **Plagiarism** refers to using the words and/or ideas of another person without acknowledging the source. Plagiarism is not permitted and considered an offence. Failure to acknowledge the sources you have used by using both in-text and end-text referencing will compromise the mark you receive and may result in a '0' mark. One of the main ways to avoid plagiarism is learning how to reference correctly.
- **Collusion** occurs when students produce the final work together, but submit the work under individual names, giving the impression that the final work is wholly that of the individual claiming authorship. If students lend/borrow assignments and use ideas from another student's assignment, this is deemed to be collusion. This is a deliberate attempt to deceive the lecturer or tutor. Collusion is not permitted and considered a Plagiarism offence. ALL students involved will be penalised. In addition plagiarism relates to group work in the case of group projects, falsely claiming authorship without making adequate contribution and in the case of group projects, attributing authorship to group members who failed to contribute.
- **Collaboration** describes an activity in which students have been given permission to work together to accomplish a task. You are usually asked to submit a joint assignment under joint names. However, make sure you are clear about how your lecturer wants you to report on the outcomes.

It is your responsibility to ensure that you are familiar with the rules covering collusion, collaboration and plagiarism. Failure to comply may result in serious penalties, the failure of the assignment in question and possibly failure in the unit. If you have any questions about this please contact your lecturer who will be pleased to explain or refer to the Curtin College's Academic Integrity Policy which is located under Policies and Procedures on the College's website: <http://www.curtincollege.edu.au>

Plagiarism Monitoring

Some (or all) assessments in this unit may be monitored for plagiarism using the Turnitin plagiarism detection service (see <http://turnitin.com>). Students who do not want assignments retained in the Turnitin database, must lodge a special request prior to the submission date. Please advise the Unit Coordinator if you do not wish to have your assignment retained.

APPEALING IN CLASS ASSESSMENTS (NOT FINAL EXAMS)

Upon notification of the mark awarded for an assessment item, a student who believes that their result is incorrect or unfair may submit an appeal against their mark. There is a four step process for appealing In Class Assessments

Note: In-Class assessments cannot be appealed at the end of the semester after the final results have been released.

Step One: Informal Appeal of Result.

Fill in an Application for an Informal Appeal of Result – In class Assessment form which can be downloaded from the Student Portal – [Forms & Info/Forms and Documents/ Appeals] and submit the form to the lecturer within 7 working days.

The lecturer will respond within 7 working days. First they may agree with the concerns, and make a change to results so that the mistake or marking problem is changed upwards or downwards. Second, they may explain why the marks addition is not in error, or why the marks awarded are fair; in that case they would recommend no change be made to the marks.

Step Two: Formal Appeal of Result

If the appellant is dissatisfied with the outcome from the Informal Appeal of Result (above), they may apply for a formal appeal by completing an Application for Formal Appeal of Result – In Class Assessment form which can be downloaded from the Student Portal – [Forms & Info/Forms and Documents/ Appeals]. Applications must be submitted within 7 days of receiving feedback from the Informal Appeal of Result process. All applications for a Formal Appeal of Result must be submitted to Curtin College Reception.

Step Three: Appeals Committee

When the appellant is unsatisfied with the outcome of Step One; and Step Two, then they may lodge a written appeal to the Appeals Committee (appeals@curtincollege.edu.au) within 7 working days of receiving the outcome of Step Two.

Step Four: External Agents

Where the appellant is unsatisfied with the outcome of the Step Three then they may lodge an appeal with the external agents.

Please refer to the Curtin College Appeals Policy – Section 5.1 - located under Policies and Procedures on the College's website: <http://www.curtincollege.edu.au> for more details.

APPEALING FINAL GRADE (INCLUDING EXAM MARK)

Upon notification of the final result, students who believe that their result is incorrect or unfair may submit an appeal against their mark. Students must be aware that when submitting an appeal, the results can be changed either upward or downward. There is a three step process for appealing the Final Result.

Please refer to the Curtin College Appeals Policy – Section 5.2 - located under Policies and Procedures on the College's website: <http://www.curtincollege.edu.au> for more details.

Note: It is too late at this stage to appeal any in-class assessments that were due before Week 11.

ACADEMIC LANGUAGE ENRICHMENT PROGRAM (ALEP)

Curtin College is committed to ensuring that all students have the necessary English language skills to be successful in their chosen academic field. Therefore, students will be assessed using a PELA (post enrolment language assessment) task to determine the proficiency of their written English language skills in week one or two of their course. The PELA will identify those students that require compulsory additional English language development (ALEPe). Students will be notified via their College email if they need to enroll in ALEP. Students may also self-select ALEPe. Students that are identified as requiring compulsory ALEPe must attend a minimum 80% of ALEPe classes as a co-requisite for Academic Communication.

Attendance for ALEPe is defined as:

- Punctual attendance to 80% (7.5) classes.
- Contributing to verbal discussions in every class
- Speaking in English during class time and during all class activities

STUDY SUPPORT

Academic Master Skills Workshops

The Academic Master Skills workshops are a great way to help you get more out of your studies at the College and later at Curtin. The workshops cover skills that are very useful to helping students get better grades and use time more efficiently. They run throughout the trimester and most importantly, they are free.

Workshops are available weekly and consist of a one hour sessions. Topics covered include how to manage your time, how to study effectively, how to research and reference, how to deliver oral presentations and how to write essays and reports.

Academic Drop-In Sessions

The Academic Drop in sessions are one on one consultation with a Communication Skills lecturer, who can help students with academic writing and reading skills, referencing assessments, structuring reports and essays, researching assessments, and English Language support. These sessions are available to all students at Curtin college free of charge and do not require making an appointment. These sessions begin in week three of every trimester and students will be seen on a first come first served basis.

For more information on the Student Support available at Curtin College please visit the **Student Support** Section of the Student Portal.

EXPECTATIONS OF YOU AS A STUDENT

Curtin College is committed to high standards of professional conduct in all activities, and holds its commitment and responsibilities to its students as being of prime importance. Similarly, it holds expectations about the responsibilities students have as they pursue their studies within the environment the College offers.

Curtin College's Code of Conduct for Teaching and Learning states:

Students are expected to participate actively and positively in the teaching and learning environment. They must attend classes when and as required, strive to maintain steady progress within the subject, comply with workload expectations, and submit required work on time. If a significant assessment is not attempted the student may receive a fail – NC (not complete) grade.

For more information please refer to the Curtin College's Code of Conduct Policy which is located under Policies and Procedures on the College's website: <http://www.curtincollege.edu.au>

STUDENTS' RIGHTS AND RESPONSIBILITIES

It is the responsibility of every student to be aware of all relevant legislation, policies and procedures relating to their rights and responsibilities as a student. These include:

- the College's policy and statements on plagiarism and academic integrity and copyright,
- the College's policies on appropriate use of software and computer facilities,
- appeals and complaints resolution,
- student feedback,
- other policies and procedures

For more information please refer to the Curtin College Policies which are located under Policies and Procedures on the College's website: <http://www.curtincollege.edu.au>

IMPROVEMENTS AND STUDENT FEEDBACK

From time to time students will be invited to participate in online surveys to provide feedback on the module and on the College. Curtin College values student feedback as one of the many ways to continuously inform improvements to the Unit. Students are encouraged to complete the UNIT SURVEY for this unit when it is made available online from Teaching Week 10.

Recent student feedback on this Unit is available on the Student Portal under '[What You SAID](#)'.

ADDITIONAL INFORMATION

If you have a query relating to administrative matters such as:-

- requests for deferment of study
- difficulties with accessing online study materials
- obtaining assessment results

or wish to discuss your studies or personal issues, then please contact Level 1 Reception personally or call 9266 4888 to make an appointment.

UNIT STUDY CALENDAR

If you have a printed copy of this document, you may like to tear off this final page and keep the Study Calendar handy as you work through the unit.

Calendar Week	Teaching Week	Week Starting on:	Topic	Reading	Tutorial Activity	Assessment Due
1	1	2 March	Into to Unix		1	
2	2	9 March	Intro to Java	Ch 1	2	Quiz 1
3	3	16 March	Data Types.	Ch 2	3	Quiz 2
4	4	23 March	Sub Modules & Booleans	Ch 3	4	Quiz 3
5	5	30 March	WORKSHEET TEST ONE. Selection Control	Ch 4	5	Test 1
6	-	6 April	Tuition Free Weeks			
7	-	13 April				
8	6	20 April	Looping Control	Ch 5	6	Quiz 4
9	7	27 April	Introduction to object orientation	Ch 6	7	Quiz 5
10	8	4 May	The aggregation relationship.	Ch 7	7	Quiz 6
11	9	11 May	WORKSHEET TEST TWO. The inheritance relationship.	Ch 8	8	Test 2
12	10	18 May	Abstract classes.		8	Quiz 7
13	11	25 May	Abstract methods.		8	Quiz 8 Assignment
14	12	1 June	Final Exam Preparation.		Revision	
15	-	8 June	Tuition Free Week: Study Week			
16	13	15 June	Exam Week			
17	14	22 June	Exam Week			