SUBJECT LEARNING GUIDE

Introduction to programming

CSE4IP

Term 4, 2022

City Campus and online

Subject Coordinator: Nasser Sabar

Subject details

Overview	
Subject code	CSE4IP
Subject title	Introduction to programming
Teaching period	T4
Location(s)	Melbourne
Credit points	15
Delivery mode	Online
AQF level	9

Enrolment requirements	
Prerequisites	N/A
Co-requisites	N/A
Assumed skills and knowledge	A solid understanding of computing and basic programming.
Special study requirements	Students with special needs whose participation in this subject might be limited by any study requirements are encouraged to consult the Equality and Diversity Centre (EDC). To contact the Centre: • Telephone on (03) 9479 2900 (Melbourne); (03) 5444 7410 (Bendigo); (02) 6024 9628 (Albury-Wodonga) • **National Relay Service Deaf and Hearing Impaired**: 133 677 (within Australia only) • Email: equality@latrobe.edu.au or refer to the website.
Additional subject requirements	Internet access. All resources are available online via the LMS.
Class materials	All materials are available online via the LMS.

Staff contacts	
Subject Coordinator	Dr Nasser Sabar n.sabar@latrobe.edu.au +610394795651 BG-234, Bundoora
Consultation time(s)	Times by email and/or appointment

About this subject

In this subject you will be introduced to the steps involved in designing and creating software solutions for a range of practical problems. To enable you to design and implement solutions, you will be introduced to methods for analysis of task definitions, algorithm design, and the writing of program source code. To develop your problem-solving skills, a variety of problems, with increasing complexity, will be presented for your practice. The Python programming language will be used as the program language for implementing software solutions. The strengths of Python, in particular its support of rapid prototyping of ideas, will be exploited to facilitate the development of your problem-solving skills and effective software development practice.

Subject intended learning outcomes (SILOs)

Upon successful completion of this subject, you should be able to:

1. Analyse a data processing problem to correctly identify both the data and high-level processing involved
2. Apply the 3 basic programming constructs of sequence, selection, and iteration to design computational solutions, and reason about which construct is most suitable when multiple approaches are possible.
3. Use basic data structures such as lists and dictionaries to solve batch data processing problems, and correctly identify which problems need to be solved in this way
4. Implement understandable and maintainable code in the Python programming language to solve computational problems, making effective use of functions, objects, and comments
5. Analyse a complex domain-specific task definition in order to design and communicate an effective algorithmic solution

Graduate capabilities (GCs)

GC	GC point
Communication	Not evaluated in this subject
Inquiry and Analysis	Cornerstone
Personal and Professional	Cornerstone
Discipline Knowledge and Skills	Cornerstone

Learning activity schedule

Timetable details are available at https://www.latrobe.edu.au/students/your-course/timetables. Students should also regularly check this subject's LMS site for updated information.

Week/ session	Date	Learning activity	Contact hours
1	18 July 2022	Introduction, motivation, flowcharts, variables, expressions, statements, and comments	3
2	25 July 2022	Comparisons, Boolean Logic, Conditional Execution, and Iteration	3
3	1 August 2022	Functions, objects, string and files	3
4	8 August 2022	Data structures and software errors	3
5	15 August 2022	Modules and structuring and documenting code	3
6	22 August 2022	Algorithm design strategies	3

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	Total	18

Self-directed study

In addition to the learning activities specified, you are expected to allocate hours per week of self-directed study in this subject. This time includes subject preparation, completing learning activities, readings, assessment preparation and other related work to enhance your participation in this subject and your learning at La Trobe.

Learning resources and technologies

Resource type	Title	Author and year	Publisher
Required			
Recommended	*Python for Everybody: Exploring Data Using Python 3*	Severance, C. (2016)	CreateSpace. ht tps://www.py4e .com/book
Recommended	*Python Programming: An Introduction to Computer Science*	Zelle, J. (2017)	*Science* (3rd ed.). Franklin, Beedle & Associates

Assessment and feedback summary

Week/ session	Date due	%	Assessment	Feedback method	SILOs assessed
Week 2	Sunday, 31 July 2022, 23:59 (Melbourne time)	25	Programming assignment 1 (equivalent to 1000 words)	Feedback on Assessment 1- Written feedback will be available within 1 to 2 weeks of the due date	1,2,4
Week 5	Sunday, 21 August 2022, 23:59 (Melbourne time)	25	Programming assignment 2 (equivalent to 1000 words)	Feedback on Assessment 2 - Written feedback will be available within 1 to 2 weeks of the due date	1,2,3,4
Exam period	See Exam timetable	50	2-hour final examination (equivalent to 2000 words)	Feedback on Assessment 3 – Final mark	1,2,3,4,5

Additional information about assessment and feedback
Students should keep a copy of all assignments submitted for assessment. Further information will be provided in the Assessment section in the LMS.

Hurdle requirements

There are a variety of assessment hurdles or conditions for passing a subject other than the overall mark. **Hurdle requirements** may be built into the assessment of the learning outcomes of your subject.

There are no Hurdle Requirements for this subject.

General assessment requirements

Submitting writing work with Turnitin

Turnitin is a web-based text-matching software system used at La Trobe University to assist you in writing your assignments and checking for similarity with existing published work. Please remember to allow adequate time for you to submit your assignment to Turnitin. **It is your responsibility to have your assignment submitted by the assessment due date.** Not receiving an Originality Report is not an acceptable reason for requesting an assignment extension unless it is a required part of the assessment.

Policies, procedures and guidelines

The University has a comprehensive policy framework to which both staff and students must adhere. You should familiarise yourself with those policies, procedures and guidelines likely to affect you especially the following:

- Academic Integrity
- Academic Progress Review
- Assessment Policy
- Adjustments to Assessment, including extensions to submission dates and Special Consideration
- Health and Safety (OHS)
- Privacy
- Validation and Moderation, including applications for review and re-mark

Adjustments for assessment

You may be affected by a range of adverse circumstances while you are preparing for or undertaking an assessment task. There are avenues for adjustments to your assessment depending on the circumstances you face. For more detailed information refer to the Assessment Procedure – Adjustments.

Request an extension of time to submit an assignment task

Where you know in advance that you will not be able to submit an assessment task by the due date due to adverse circumstances that have affected you during the preparation of the task, you will need to request an extension of time to submit. **This must be done at least three days prior to the due date**. Penalties normally apply if you submit an assessment after the due date. **Poor time management is not an acceptable reason for an extension.**

To apply, go to https://www.latrobe.edu.au/students/admin/forms/request-an-extension/request

Special consideration

If you have experienced serious short term, adverse and unforeseen circumstances that substantially affect your ability to complete an assessment task to the best of your potential, you may be eligible to apply for **Special Consideration**. To do this or find more information, go to http://www.latrobe.edu.au/special-consideration

Students with a Learning Access Plan

Students who have a Learning Access Plan must apply for any additional adjustments they may need via the same channels but may have access to more flexible arrangements depending on their circumstances. Please refer to your LAP.

Academic integrity

Academic integrity means being honest in academic work and taking responsibility for learning the conventions of scholarship. Academic integrity education is integral to the learning experience at La Trobe University. The University

requires its academic staff and students to observe the highest ethical standards in all aspects of academic work, and it demonstrates its commitment to these values by awarding due credit for honestly conducted scholarly work, and by penalising academic misconduct and all forms of cheating.

The penalty for submitting an assignment as your own that is the work of a third-party may be severe, even leading to exclusion from the University without readmission. Refer to the **Academic Integrity – Schedule of Responses and Penalties for Academic Misconduct** within the [Academic Integrity Policy](#).

You should understand and be able to practice integrity in all your academic work, and be familiar with the [Academic Integrity website](#) and complete the **Academic Integrity Module (AIM)** found in your LMS.

If you have any specific questions regarding Academic Integrity about your assessment, your Subject or Course Coordinator will be able to assist.

Student Feedback on Subjects Survey

The **Student Feedback on Subjects (SFS) Survey** is one of the quality assurance processes that occur across the University. In this survey, you can tell us about your learning experiences in this subject. We value your feedback. Your views are taken seriously and assist us to improve the learning experience for future students through the LTU Subject Monitoring process.

The surveys will be available for you to complete towards the end of the subject teaching period. Feedback from previous students who this subject is available in the LMS site for this subject.

For more information you may contact surveys@latrobe.edu.au.

Charter of student rights and responsibilities

As a La Trobe coursework student, you have several rights and responsibilities. La Trobe statutes and regulations, as well as policies and procedures, govern your rights and responsibilities. La Trobe University aspires to provide an outstanding student experience conducive to scholarly activity and supportive of your learning goals.

The **Charter of student rights and responsibilities** is a summary of your rights and responsibilities as a student at La Trobe. The Charter was developed in consultation with La Trobe students. Visit the [Charter of student rights and responsibilities page](#) to read the Charter.

Student complaints

The **Student Complaints Management System (SCM)** is a formal mechanism for students to lodge concerns about any aspect of their university experience. A student complaint may be about any aspect of university life, such as an administrative matter, a problem with a subject or course, or the conduct of a student or staff member.

For more information about the **Student Complaint process** and how to lodge a complaint, visit the **Complaints and Feedback** page at: https://www.latrobe.edu.au/students/support/complaints.

Getting help and support at uni

A range of services at La Trobe can assist you with your studies, health and wellbeing. For the full range of services and facilities available for you, go to Student Help and Support at http://www.latrobe.edu.au/students/support.

Studying online

When you are in studying an online subject, please be sure that you can continue to access our learning support services through the Learning Hub (academic skills, English language, Maths and Science) via Zoom appointments that you can book by accessing the [Learning Hub LMS page](#) or by emailing the LearningHub@latrobe.edu.au.

You also have access to assignment feedback and online study support chat through Studiosity that can be accessed from any subject LMS page. You can also access the Library services remotely through the library website.

Library

Your **Library** offers many ways to support your study. To discover more about how the Library can help, visit the Library website and explore the following essential resources:

- Achieve@Uni — learn skills to help complete your assessments
- Assessment Planner — create a personal assessment schedule
- Expert Help Guides — find expert discipline and specialist help for your research
- Referencing at La Trobe University — understand how and why to reference
- Academic Referencing Tool — get detailed examples of referencing styles
- Chat to Library staff — access the text chat service from the Library website
- Contact us — call or email your Library

ASK La Trobe

ASK La Trobe is a service open to all La Trobe students who need guidance with administrative matters during their time at La Trobe. ASK La Trobe can provide you with help relating to enrolments and timetabling, fees and financial support, exams, results and graduations, and student life and support services.

Go to the ASK La Trobe — current students page and start by looking at our **FAQs** or alternatively, visit us at your campus **ASK La Trobe Help Zone**.

If you can't find what you're looking for:
- **Call** 1300 La Trobe (1300 528 762)
- **Ask a question** online at http://latrobe-current.custhelp.com/app/ask
- **Visit** the **ASK La Trobe Help Zone.** Join the queue for the Bundoora, Bendigo or city campuses using the QLess: Virtual Queuing system.

Learning support and programs

There are many resources, including services, to help you with your academic studies at La Trobe. Go to the Learning support and programs page for further information.

Health and wellbeing

Your health and wellbeing are an important part of being a successful student. Studying can be stressful and many factors can affect your mental and physical health, in and outside of the University. Check out the services available to you at La Trobe to support your health and wellbeing at www.latrobe.edu.au/wellbeing.