Introduction to Programming using Python

ecollege

Introduction to Programming using Python- eCollege Course

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Enrolment and Course Access

eCollege Login

Once you have activated the course, you will always log in to eCollege here: www.ecollege.ie.

eCollege Password

If you forget your password, you can use the password reset option on eCollege:

https://ecollege.etbonline.ie/login/forgot_password.php

Course Start Date

The course starts once you have logged into eCollege. We run this course on a continuous intake basis. You may see other start dates on Fetch Courses; these are incorrect.

Course Length

We allow **14** weeks to complete the course, and we suggest you will need to study about 10 hours a week. Based on previous statistics, many learners complete this course in less than 14 weeks.

There are several contact hours within the interactive tutorials, and you may have to go back over specific topics. There is also a portion of self-directed learning involved.

eCollege Course Structure

We have laid out the course structure with these topics:

- Getting Started
- Course Resources
- Course Content (multiple topics)
- Test Preparation
- Exam Booking

Getting Started Topic

The Getting Started topic includes:

- Induction Module
    - Online Learning
    - eCollege Policies and Procedures
    - Workstation Safety
- Getting Started Questionnaire
    - Provides you with valuable course information. We also ask some questions concerning your employment and education status.

Course Resources Topic

The Course Resources topic includes a learning plan, examination information, details on required software, recommended reading and reference library, practice labs, and a glossary of terms. You can use these resources as you progress through the course.

Course Content Topics

All course work is included in the following **12** Course Content topics:

1. Perform Operations using Data Types and Operations 1
2. Control Flow with Decisions and Loops 1
3. Perform Input and Output Operations 1
4. Document and Structure Code 1
5. Perform Troubleshooting and Error Handling 1
6. Perform Operations using Modules and Tools 1
7. Perform Operations using Data Types and Operators 2
8. Control Flow with Decisions and Loops 2
9. Perform Input and Output Operations 2
10. Document and Structure Code 2
11. Perform Troubleshooting and Error Handling 2
12. Perform Operations using Modules and Tools 2

Test Preparation Topic

The Test Preparation topic helps ensure you are ready for your examination. You will complete activities that prepare you for the examination. You must achieve a certain percentage in these activities before moving on to the Exam Booking stage.

Exam Booking Topic

In the Exam Booking topic, you will complete the Course Questionnaire and Exam Booking Form to help guide you through the exam booking process.

Course Information and Syllabus

Prerequisites

There are no mandatory prerequisites, but we do recommend that students have a high level of computer literacy and an interest in coding and basic maths and algebra. An aptitude for logical thinking and problem solving would also be a distinct advantage.

Course Information

This online course is focused on teaching you the fundamental skills and concepts of Python — one of the world's most popular and versatile cross-platform programming languages. Python's popularity has grown vastly in over the last decade, because it is relatively easy to learn, is highly portable and utilises streamlined code. Some of the world's leading tech companies use Python for their websites' back-end, including Google, Instagram, Spotify, Netflix, Uber and Dropbox.

This online course in Python covers the core fundamentals of the Python language. You will learn to recognise and write syntactically correct Python code, recognise data types supported by Python, and be able to recognise and write Python code that will logically solve complex problems.

You can review the course syllabus here.

QQI/FETAC

There is no QQI/FETAC qualification associated with this course.

Certification

Upon successful completion of the Microsoft Technology Associate (MTA) – Introduction to Programming using Python – 98-381 examination, you will be awarded an industry qualification from Microsoft. See more information here.

Examination

Exam Costs

SOLAS will cover the cost of your exam.

Exam Format

- Approximately: 40 multiple-choice questions
- Passing Score: 70%
- Time Limit: 45 minutes

Register for the Examination

You will be able to register for the exam once you have completed all the topics, including the Test Preparation topic. After these are all successfully completed, the Exam Booking topic will be available to you.

At this point, eCollege administration staff will work with you to purchase the exam from Certiport. This process will require you to create a Certiport account and complete a registration form for them.

Where Can I Complete My Examination?

You can choose a Test Centre that is convenient for you on the Exam Booking Form (if applicable). Once the Exam Booking Form is submitted, eCollege will send you an exam voucher and you will be able to book your exam with Certiport.

Please review the test centre list here for this Microsoft Technology Associate (MTA) exam.

There is currently a system in place whereby you can complete the exam at home if you have the technical setup to do so. Click here for more Information.

Refund of Public Travel Expenses

You may have to travel to a test centre; we can refund the cost of any public transport used. Please keep your receipts.

Exam Support

If you require accommodation (support for any documented learning difficulties), you need to apply for this in advance. Any request for additional support **will require documented evidence** from a medical professional.

We cannot request additional support on your behalf due to data protection. There is no requirement to start this process now. You will be able to do this once you have reached the Exam Booking topic.

Course Content

Live Classes

There are no live classes. The course content is laid out for you in interactive tutorials that can be accessed anytime once you are logged into eCollege.

Interactive Tutorials

Course content is created and designed by LearnKey and Skillsoft. LearnKey and Skillsoft supply eCollege with interactive tutorials aligned to the course syllabus. These interactive tutorials are found within each topic. They cannot be viewed offline.

LearnKey Interactive Tutorials

Within the Topic, LearnKey interactive tutorials appear like this:
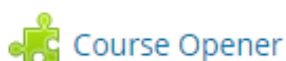
These icons launch **LearnKey** video content.

Skillsoft Interactive Tutorials

Within the Topic, Skillsoft interactive tutorials appear like this:

These icons launch **Skillsoft** video content.
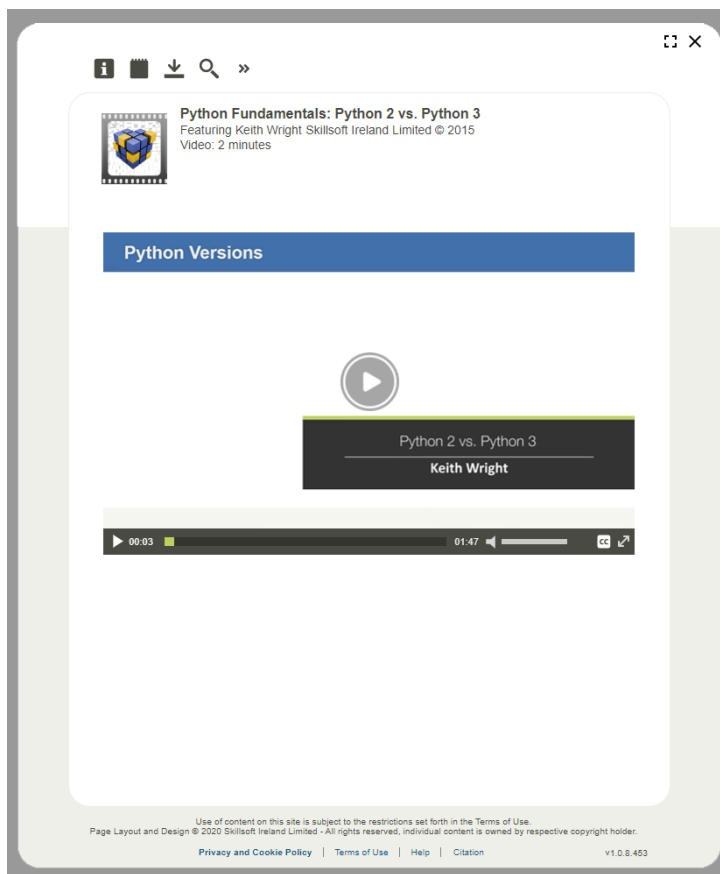
eBooks

There are a series of recommended eBooks and additional reference materials available in the

Course Resources topic.
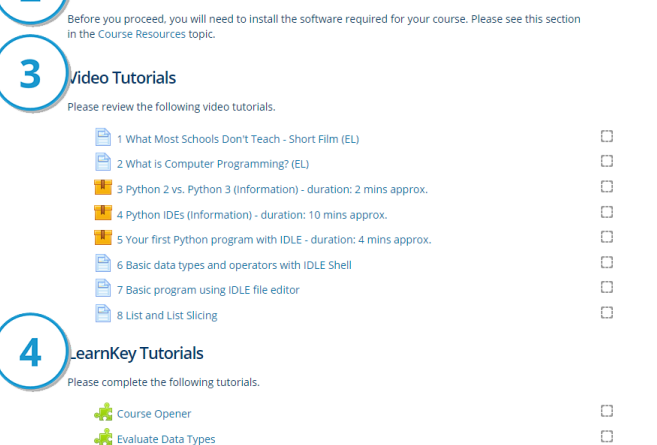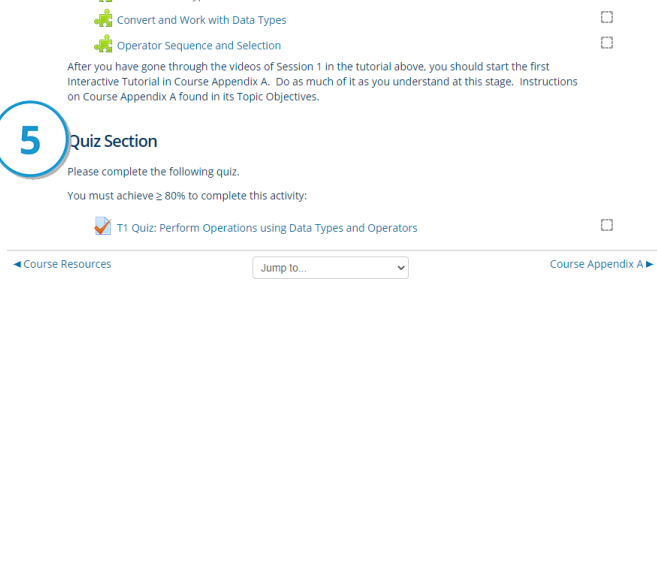
How to approach the course

Once you have completed all the activities in the Getting Started topic, Course Resources and Course Content material will be unlocked and available to you.

You will progress through each course topic in order. Course Content topics focus around the course material supplied by LearnKey and Skillsoft.

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Be social, join the Discussion Forums 💬

Information on Exams ⓘ

Getting Started - Click Here	Course Resources	Topic 1 of 12
START		Perform Operations using Data Types and Operations 1
Topic 2 of 12	**Topic 3 of 12**	**Topic 4 of 12**
Control Flow with Decisions and Loops 1	Perform Input and Output Operations 1	Document and Structure Code 1
Topic 5 of 12	**Topic 6 of 12**	**Topic 7 of 12**
Perform Troubleshooting and Error Handling 1	Perform Operations using Modules and Tools 1	Perform Operations using Data Types and Operators 2
Topic 8 of 12	**Topic 9 of 12**	**Topic 10 of 12**
Control Flow with Decisions and Loops 2	Perform Input and Output Operations 2	Document and Structure Code 2
Topic 11 of 12	**Topic 12 of 12**	**Course Appendix A**
Perform Troubleshooting and Error Handling 2	Perform Operations using Modules and Tools 2	Course Appendix A: Good Programming Practice
Bonus Topic	**Test Preparation**	**Exam Booking**
Bonus Topic		Exam

How to approach the first topic

1	**Topic Objectives:** Read the topic objectives, which is a list of what you are going to learn in the topic.
2	**Software Requirements:** Before you proceed, you will need to install the software required for your course.
3	**Video Tutorials:** Review the interactive tutorial, click to open and click "start course": ![Start Course] Review the table of contents and complete all parts of the tutorial.
4	**LearnKey Tutorials: Interactive Course Material:** For **LearnKey** tutorials, click the puzzle piece links to launch the video. Review the table of contents and complete all parts of the tutorial.
5	**Quiz:** This is a mini quiz to test your knowledge, complete it with a score of 80% to move on.

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Information on Exams

◄ Course Resources   Course Appendix A ►

Topic 1 of 12

Perform Operations using Data Types and Operations 1

1 Topic Objectives

Please review the following information.

📄 Topic Objectives   ☐

2 Software Requirements

Before you proceed, you will need to install the software required for your course. Please see this section in the Course Resources topic.

3 Video Tutorials

Please review the following video tutorials.

📄 1 What Most Schools Don't Teach - Short Film (EL)   ☐
📄 2 What is Computer Programming? (EL)   ☐
📄 3 Python 2 vs. Python 3 (Information) - duration: 2 mins approx.   ☐
📄 4 Python IDEs (Information) - duration: 10 mins approx.   ☐
📄 5 Your first Python program with IDLE - duration: 4 mins approx.   ☐
📄 6 Basic data types and operators with IDLE Shell   ☐
📄 7 Basic program using IDLE file editor   ☐
📄 8 List and List Slicing   ☐

4 LearnKey Tutorials

Please complete the following tutorials.

🧩 Course Opener   ☐
🧩 Evaluate Data Types   ☐
🧩 Convert and Work with Data Types   ☐
🧩 Operator Sequence and Selection   ☐

After you have gone through the videos of Session 1 in the tutorial above, you should start the first Interactive Tutorial in Course Appendix A. Do as much of it as you understand at this stage. Instructions on Course Appendix A found in its Topic Objectives.

5 Quiz Section

Please complete the following quiz.

You must achieve ≥ 80% to complete this activity:

✅ T1 Quiz: Perform Operations using Data Types and Operators   ☐

◄ Course Resources   Jump to...   Course Appendix A ►

Review the forums, ask a question of your fellow participants if you wish to transfer knowledge.

Once you complete all steps for the topic, you can move to Topic 2 and repeat the process.

eCollege Support

We have a reliable support system in place, and you can contact us via email for any questions or concerns. You can request a phone call if you wish to speak to eCollege.

eTutor

There is an eTutor assigned to your course who is available via email if you have any subject matter related queries. Your eTutor will email you to welcome you to the course. You can also see their contact information on the course homepage.

Administration and Helpdesk

We have a team of administrators who can help with general course questions and technical support.

Technical Requirements

Most eCollege courses will require you to have a Windows PC, especially any Microsoft courses. Other courses may allow the use of an Apple device.

We recommend:

- Dual-core processor
- 4GB of RAM or higher
- The latest up-to-date operating system
- Chrome or Firefox web browser
- Minimum screen resolution of 1024 X 768
- High-speed broadband – we do not recommend the use of mobile dongles

A printer is not required.

Pop Ups

You must enable popups to allow the interactive course material to run. Please add the following URL as an authorised site for popups: https://ecollege.etbonline.ie/. Do not turn off popup blockers completely.

How to do this per browser:

- Chrome
- Firefox
- Internet Explorer
- Edge

eLearning General Information

We are aware that eLearning has its challenges that can prevent you from absorbing the content and the critical aspects of the course.

We are also aware that you may be on-the-go and don't have a lot of time to devote to the eLearning experience.

You can overcome this by engaging your course in bite-sized chunks when you are ready to learn. You should also avoid lengthy study sessions; by doing this, you give yourself the chance to acquire and retain information more effectively.

We also offer the opportunity for peer collaboration through the various discussion forums within the course, where learners can collaborate on the subject matter. If you have a specific issue with the course, we advise you to contact the eCollege team.