



How to Get Into Robotics



Instructors: [Dr Rafael Papallas](#) +1 more

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2 modules

Gain insight into a topic and learn the fundamentals.

4.6 ★

(56 reviews)

Beginner level

No prior experience required

6 hours to complete

Flexible schedule

Learn at your own pace

What you'll learn

- ✓ Explain the foundational aspects of robotics, covering intelligent robot components.
- ✓ Learn about the challenges in specific areas such as industrial robotics and autonomous vehicles.
- ✓ Name current areas of robotics application, highlighting challenges in social, legal, and ethical aspects.
- ✓ Identify diverse robotics careers and understand essential skills for success.

Skills you'll gain

Healthcare Ethics Artificial Intelligence Responsible AI Robotic Process Automation Artificial Intelligence and Machine Learning (AI/ML) Engineering Automation Surgery Biomedical Engineering Manufacturing and Production Emerging Technologies Computer Programming Data Ethics [View less skills](#)

Details to know



Shareable certificate

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Assessments

6 assignments



Taught in English

See how employees at top companies are mastering in-demand skills



In this course, you will learn about the dynamic world of robotics, which blends engineering, electronics, and computer science to create innovations that enhance our daily lives.

You'll learn to envision a future where humanoid robots assist the elderly, autonomous cars ensure safety and medical robots revolutionise surgical precision.

You'll then discover the array of exciting careers in robotics, from engineering and software development to research and project management, gaining insights into the skills required for success in this rapidly advancing field.

Click Start, a nationwide training programme designed to help young people develop digital skills, offers this course. Click Start offers scholarships giving free access to young people in the UK. Follow the link in the Click Start icon on the top, to check if you are eligible for free access!

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Week 1. Introduction to Robotics

[Module details](#) ^

Module 1 • 3 hours to complete

In Week 1 you will be introduced to the subject of robotics! Specifically, Lesson 1 will define what a robot is, look at the 'attributes' of intelligent robots, and review some careers in robotics. Lesson 2 will look at some of the different industries that you might consider working in. The aim of the first week is to familiarise you with robotics and the job opportunities and industries robotics thrive in.

What's included

 2 videos  16 readings  3 assignments  3 discussion prompts

Hide info about module content ^

 2 videos • Total 7 minutes

Welcome to the course • 2 minutes

What is an intelligent robot? • 5 minutes

 16 readings • Total 120 minutes

Course overview • 10 minutes

Lesson 1: Overview • 5 minutes

What is a robot? • 5 minutes

A note about the categorisation of robotics jobs • 5 minutes

Software-related jobs • 15 minutes

Hardware-related jobs • 10 minutes

Research-related jobs • 10 minutes

Other roles and specialisations • 5 minutes

Lesson 1: Summary • 5 minutes

Lesson 2: Overview • 5 minutes

Industrial robotics • 10 minutes


Logistics and e-commerce • 10 minutes

Autonomous vehicles • 5 minutes

Medical and health care robotics • 5 minutes

Domestic robotics • 10 minutes


Lesson 2: Summary • 5 minutes

 3 assignments • Total 35 minutes

Check your understanding: What is a robot? • 10 minutes

Check your understanding: Careers in robotics • 10 minutes

Test your understanding: Robotics applications • 15 minutes

 3 discussion prompts • Total 40 minutes

Introduce yourself and tell us what you are looking forward to! • 10 minutes

Which category of jobs do you find the most interesting? • 10 minutes





Week 2. Challenges, opportunities and the skills required to succeed in robotics

[Module details](#) ^

Module 2 • 3 hours to complete

In this second week we will discuss the challenges and emerging opportunities of robotics. In particular we will discuss why robotics is hard, why the future is promising, and look at the ethical implications of robotics. Finally, we will host interviews with industry experts from Ocado Technology, the technology company behind the online grocery shop Ocado, and Shadow Robot.

What's included

 6 videos •  11 readings •  3 assignments •  1 discussion prompt

[Hide info about module content](#) ^

 6 videos • Total 37 minutes

Robotics is hard • 3 minutes

The ethical implications of robotics • 5 minutes

Career advice from Giuseppe from Ocado Technology • 10 minutes

Career advice from Annagiulia from Shadow Robot • 11 minutes

Technical skills: Important robotics tools and relevant programming languages • 4 minutes

Course summary • 1 minute

 11 readings • Total 108 minutes

Lesson 3: Overview • 5 minutes

The future is exciting • 5 minutes

Optional: Learn more about the trolley problem • 10 minutes

Lesson 3: Summary • 5 minutes

Lesson 4: Overview • 5 minutes

Fundamental theoretical knowledge and soft skills for a career in robotics • 10 minutes


Podcast: talking robotics with Annagiulia from Shadow Robot • 16 minutes

Podcast: talking robotics with Giuseppe from Ocado Technology • 15 minutes

Lesson 4: Summary • 2 minutes

Next steps • 5 minutes

Optional: reflect on your own professional development and identify next steps • 30 minutes

 3 assignments • Total 45 minutes

Test your learning and gain your certificate • 25 minutes

Test your understanding: Ethics • 10 minutes

Check your understanding: Skills and knowledge • 10 minutes

 1 discussion prompt • Total 20 minutes

What about the now? Research the job market and find out • 20 minutes

Instructors

Instructor ratings  4.7  (17 ratings)



Dr Rafael Papallas

University of Leeds

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- YC

★ 5 · Reviewed on Dec 8, 2024

I am not a student major in STEM realm, but this is definitely an excellent lesson for introduction of robots.
- EA

★ 5 · Reviewed on Jan 19, 2025

A very informative course you should take before pursuing your robotic dreams. I just wish it had more videos.
- SC

★ 5 · Reviewed on Nov 21, 2024

It was nice experience learning a new and latest technology

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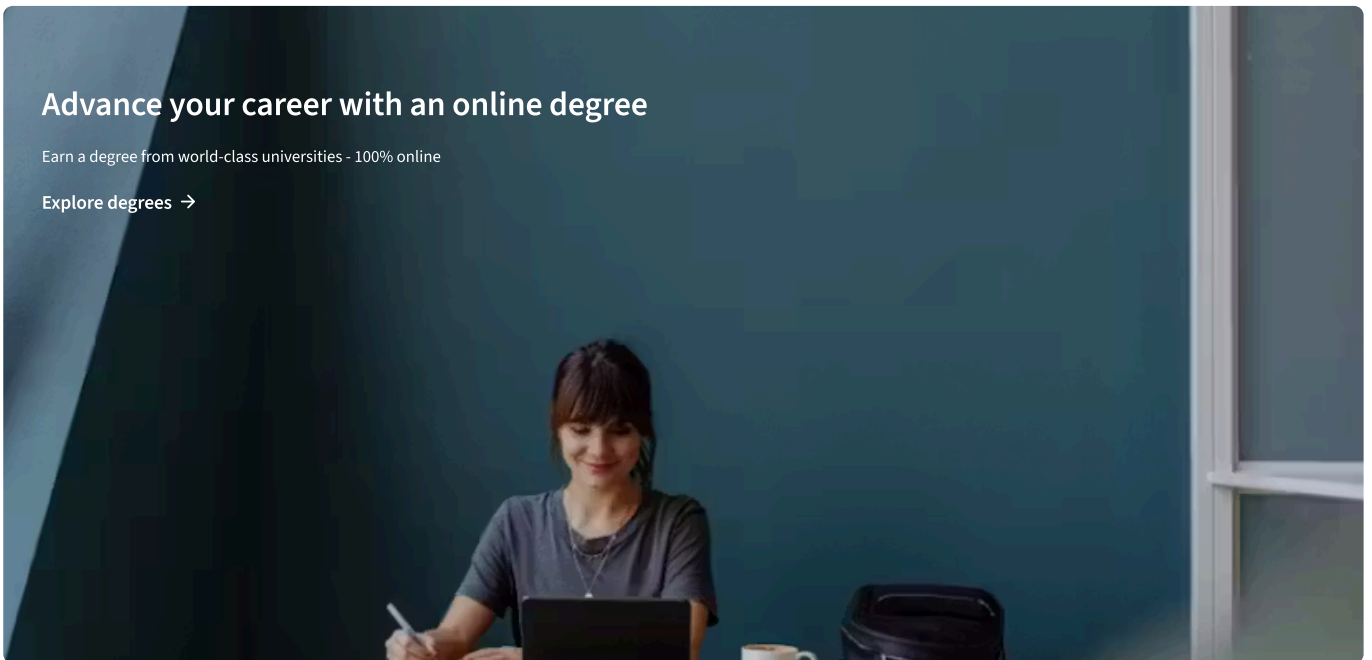
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Frequently asked questions

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When will I have access to the lectures and assignments?

To access the course materials, assignments and to earn a Certificate, you will need to purchase the Certificate experience when you enroll in a course. You can try a Free Trial instead, or apply for Financial Aid. The course may offer 'Full Course, No Certificate' instead. This option lets you see all course materials, submit required assessments, and get a final grade. This also means that you will not be able to purchase a Certificate experience.

What will I get if I purchase the Certificate?

When you purchase a Certificate you get access to all course materials, including graded assignments. Upon completing the course, your electronic Certificate will be added to your Accomplishments page - from there, you can print your Certificate or add it to your LinkedIn profile.

Show all 4 frequently asked questions

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IBM Data Analyst Certificate
IBM Data Science Certificate
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Industries & Careers

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Career Aptitude Test
Examples of Strengths and Weaknesses for Job Interviews
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