#TheUCLanExperience

FRIENDLY ENVIRONMENT.

ALL AREAS OF MATHS TAUGHT:  
PURE APPLIED AND STATISTICS. 
PATHWAYS FOR TEACHING, 
INDUSTRY AND FURTHER STUDY.

Find out more:

StudyAtUCLan
@UCLanMaths
You will study the three areas of mathematics; pure, applied and statistics. This gives a solid background and broad experience, knowledge and skills that can be transferred to teaching, industry or further study.

You'll have the opportunity to complete an individual project in your final year under the guidance of a supervisor, to investigate in-depth an area or application of mathematics that particularly interests you.

You could have the opportunity to take part in UCLan’s undergraduate research internship scheme, where you can work on ground-breaking mathematical research projects during your summer vacations.

Our degrees are accredited by the Institute of Mathematics and its Applications (IMA) to meet the educational requirements of the Chartered Mathematician designation when followed by subsequent training and experience in employment.

You will study the three areas of mathematics: pure, applied and statistics. This gives a solid background and broad experience, knowledge and skills that can be transferred to teaching, industry or further study.

Our programmes cover all the main areas of mathematics, along with selections from a diverse range of mathematical specialities.

To find out when our open days take place go to uclan.ac.uk/opendays or for applicant days uclan.ac.uk/applicants

How to find us
UCLan’s mathematics degrees are taught at our main campus, in the city of Preston in the heart of Lancashire. The campus is conveniently situated within walking distance of Preston railway station, which sits on the West Coast Main Line and benefits from direct rail links north to Glasgow and south to London and to Manchester Airport. The campus is also a short drive from the M6 motorway.
MATHS DEGREES

BSc (Hons) Mathematics
UCAS Code G100

This degree will develop your skills and knowledge over a broad range of mathematical disciplines. It will equip you with a thorough overview of modern mathematics, exploring a range of topics from pure and applied mathematics to statistics. We place an emphasis on the key skills of mathematical reasoning, covering the fundamentals of mathematics in lectures and workshops, along with problem-solving activities, group work and computer lab sessions. You'll also develop transferable skills in other areas such as report writing and presentations.

For a full-time student, the BSc (Hons) Mathematics degree is completed over the course of three years. The range of options available is shown in the schematic on pages 6 and 7 – Years 1, 2, and 3 are included in this degree, and you complete six modules each year. A number of compulsory modules ensure that all students have the same basic knowledge and skills, and optional modules allow students to specialise in areas that are of particular interest to them.

MMath (Hons) Mathematics
UCAS Code G102

Prepare yourself for more advanced scientific or professional careers with an extra year's study to deepen your understanding of pure and applied mathematics. For the first three years you will follow the BSc Mathematics programme. In the additional fourth year, as well as learning more advanced mathematical topics, you will learn to study in a more independent fashion and will further develop your transferable skills.

You'll be taught in a friendly and encouraging atmosphere, by staff with doctoral research degrees, from mathematically diverse backgrounds. Get the benefit from small intimate class sizes, giving you regular opportunities for help and support from your tutors. The MMath degree not only enables you to apply for more specialised careers, it is also the perfect stepping stone towards studying for a PhD.

Mathematics (Foundation Entry)

We also offer a foundation route to the BSc and MMath degrees. If you're coming from a non-standard mathematical background, or your A Levels don't quite go as planned, then the foundation degree might be for you. You would take an extra year at the beginning of your studies to prepare you for a BSc or MMath degree. You take modules in mathematics and physics or computing to be prepared to hit the ground running the following year. Degree completion rates rates for students who successfully complete the foundation year are high, so this is a great way to enter the mathematics degree programme!

During your studies, you can switch between the BSc and MMath degree schemes, so successful BSc students can extend their studies by one year and progress onto the MMath.

Find out more:
- StudyAtUCLan
- @UCLanMaths
The degrees cover six key areas of mathematics in depth. In your first year you learn the basics of all six areas, but later on you can specialise in the areas which interest you most.

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**ALGEBRA**
Algebra is the study of the properties of numbers, matrices and polynomials. It is used in sending secret messages, investigating the structure of crystals, and understanding machine languages.

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**ANALYSIS**
Analysis is the study of sequences, series, and functions, and the idea of limits (looking at the infinitely large and the infinitesimally small). This is the branch of mathematics that explains why calculus works.

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**CALCULUS**
Calculus considers how things change over time – differential equations are used to model a wide range of real-world problems.

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**APPLIED MATHEMATICS**
Applied Mathematics covers the applications of calculus. Many applied maths modules concern mechanical systems, but the field also includes areas like mathematical biology, where you can study problems such as the spread of infectious diseases.

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**COMPUTATIONAL MATHEMATICS**
Computational Mathematics concerns the applications of computers to solve mathematical problems. This involves learning to use computers, but also understanding how computers do maths.

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**STATISTICS**
Statistics is the study of how large data sets can be analysed and interpreted to give us information about the world.
Mathematics is taught through a variety of lectures (typically 20 to 70 students), tutorials, examples classes, and practical computer classes.
Each module contains a mix of some of these appropriate to the particular topic. A typical first-year module has three contact hours each week throughout the university year. This could for example be a two-hour lecture followed by a one-hour tutorial, or a one-hour lecture followed by two hours in a computer lab learning practical skills.

There are many opportunities for students who need extra academic support. All lecturers are happy to talk to students about problems in class, and for particular difficulties one-on-one meetings with lecturers are available. Assessment is by a combination of coursework and examinations, depending on the modules selected. Coursework assessments include a mixture of project work, formal written assignments, and oral presentations. All UCLan mathematics lecturers have doctoral research degrees, and are experts in their fields, which range from pure mathematics (eg, algebra, model theory) to applied mathematics (eg, acoustics).

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**BSc (HONS) DEGREE SCHEMES**

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**CHOSE ONE OF THESE**

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**C** COMPULSORY MODULE **MC** COMPULSORY FOR MMath **MX** DISALLOWED FOR MMath
Our students believe we have the best community in the UK! With 94% we are top!

We are ranked top in the UK in a variety of categories, the following have a 100% result:

- Changes to the course has been communicated effectively
- Fair assessment and timely feedback.
- Staff provides good academic advice

Our students believe we have the best community in the UK! With 94% we are top!

UCLan Mathematics ranked 12th in the UK and top in the North West for overall satisfaction, with an impressive 94.4% rating.

Thirty students who are part of the Mathematics Society and the Physics Society visited Barcelona, Spain, for a three-day trip, funded by the UCLan International Travel Fund.

The group had the opportunity to explore this spectacular city and visit all that it had to offer, becoming submerged into the local culture. The first day began with a walk to Park Guell, which is famously known as Gaudi’s canvas for his artistic work. It was a great chance to get a feel for the city under glorious sunlight. The second day was packed with visiting Barcelona Cathedral, La Sagrada Familia and Port Vell. It was amazing to see the precise work that had gone into building some of these structures, with glass displaying a different range of colours depending on the movement of the Sun.

On the final day, all 30 students travelled to CosmoCaixa, the Barcelona science museum, in which there was plenty to see and discover. The interactive nature of the place let us dive into DNA, as well as calculate our bacteria mass. The highlights of CosmoCaixa include the spiral walkway which housed a 30-metre-high Acanquara tree from the Amazon region and the large rainforest, in which the weather constantly changed. We were able to learn about waves, pendulums and even had the chance to produce a sand storm or touch the eye of a tornado. There were also many other interesting experiments which utilised water, as well as many optic and acoustic experiments.

We ended the trip with a visit to Barceloneta beach, where we had a competitive game of football, before watching the Europa League final during a closing meal before heading back to the hostel.

Commenting on the visit, student Rimsha Tariq said:

“I am so glad we were given the chance to plan an amazing trip. In just three days, we managed to see and do so much, and more importantly, everyone had a great time. It succeeded in fuelling our interest into mathematical applications, whilst also bringing us closer as a cohort.”
In the first year the whole cohort goes for a three-day residential retreat in Wales, working together in the mountains. The PASS (Peer Assisted Support Scheme) runs throughout the first year. In the weekly PASS session second and third year students organise activities to share the “tricks of the trade” they have learnt during their studies, and also help first year students with practical aspects of the course (finding resources, how to submit a good piece of work etc.). The Maths Society also organises a variety of social events. Everybody knows each other and it is easy to find someone, whether a classmate, another student or a lecturer for help when needed.

Dan is a first year student and shares his experience of starting the mathematics degree:

“I found it very easy to integrate as all the staff and lecturers are very friendly and helpful whenever I needed it. I think the most important thing about settling down anywhere from University to a job is getting to know the people you are going to be working with.

The Wales trip was brilliant at helping me and others on my course get to know each other. I go climbing together three times a week with the friends I made there and always sit with them in class. We liked it so much and had so much fun we would all go again if we could.

The PASS session one hour a week gives us a more casual place to sit and do work together, we share each other’s perspectives on the problems and concepts, and learning from each other becomes a social activity.

I have loved coming to UCLan. When I was going on Open Days a lot of universities felt very business-like: very formal and grey. But UCLan feels such a colourful enthusiastic learning environment. The facilities to work in are excellent: from the library to the large social space. And the lecturers are eager, enthusiastic about their subject and always happy to help.”
Why did you choose UCLan?
I chose UCLan because the mathematics course ranked well in the Guardian university league tables - I think it was sixth in the UK.

What is the teaching like on this course?
The lecturers gave us a talk at the beginning of the course and assured us we would need to work hard to earn our degree. I liked this because I wanted the course to be challenging. We started with a recap of A Level maths, which was good because it helped everyone settle in and relax. All the lecturers are really approachable and the class sizes are fairly small so you’re encouraged to answer questions in the middle of a lecture.

Why should people study mathematics at UCLan?
Mathematics is a degree which is held in high esteem. Employers love it and it can open so many doors. It’s a difficult subject but very rewarding when you understand it.

What extracurricular opportunities have you got involved with?
I visited Italy in the summer between my second and third year thanks to UCLan’s International Travel Bursary. We had to apply for the bursary and chose Italy because of its prominence in mathematical history. We visited the University of Pisa and received a guided tour of their maths department. We had a lecture about the history of maths where Galileo will have taught and it was great to see how maths is a universal language.

I’ve also set up my own business called Myriad of Maths. I work part-time for Mad Science which makes science fun for children in school or at birthday parties. Myriad of Maths will operate in a similar way. I create kits/lesson plans that present maths in a very fun way and am hoping to deliver these at after school sessions.

I’d have been lost if I tried this start-up without UCLan. I won the UCLan Entrepreneurship Award and received a £500 prize which helped me start the business. The enterprising department have been so helpful and I have regular meetings with them where they help me move the business forward. They also provide free office space.

What advice would you give to prospective students considering studying here?
Think about whether you want to live away from home or not. It’s a vital decision when thinking about university. I moved away from home, which was the best decision for me. I know people who stayed at home and regretted it but also have friends who live at home and love it because of the money they save.
UCLAN’S A PERFECT MATCH FOR MATURE STUDENT

SARAH MEDUS
MMATH (HONS) MATHEMATICS

Sarah decided to study at UCLan because she was impressed with the course content and because of the opportunity to take the MMath route, which wasn’t available at other universities she was considering.

Reflecting on the decision, Sarah said: “I liked the look of the course content and I thought I would enjoy it more than what was being offered by other universities. UCLan also offered a cryptology module which really interested me as it was what I wanted to study the most and none of the other universities I looked at offered this.”

From the beginning of her studies, Sarah has been impressed with the quality of the teaching and in particular the levels of staff support.

“The teaching has been excellent. The course is interesting, well delivered, very well structured and covers a wide range of topics. I like that the class size is quite small so the lecturers know everyone and make sure that you are keeping on top of things.

“I’d been to a larger university when I was younger and the lecturers had no idea who anyone was, and you were lucky if you knew more than 10 students on your course.”

Away from the classroom, Sarah has taken advantage of the range of opportunities available to UCLan students and has undertaken work experience in order to boost her career prospects after graduation.

She added: “I have tutored students at Worden Academy, who had requested that UCLan help their failing GCSE students. Since then I have been allowed to work in the school one day a week to gain some classroom experience, which will help me move into teaching after my degree.”

Find out more:
StudyAtUCLan
@UCLanMaths
MATHS SOCIETY

UCLAN’S MATHS SOCIETY WAS FOUNDED IN 2015 BY A GROUP OF STUDENTS FROM THE BSC (HONS) MATHEMATICS PROGRAMME AND PROVIDES STUDENTS FROM ALL COURSES WITH AN OPPORTUNITY TO SOLVE MATHEMATICAL PROBLEMS, ATTEND MATHS-RELATED EVENTS AND TO SOCIALISE WITH PEOPLE WHO SHARE A PASSION FOR MATHS.

WE SPOKE TO CHAIRWOMAN, RIMSHA TARIQ TO FIND OUT MORE ABOUT THE SOCIETY.

Q. How many members are there?  
A. We currently have over 110 members, even some studying non-mathematical related subjects, making us one of the largest societies at UCLan; everyone is welcome.

Q. How often do you meet?  
A. The society has been extremely active this year, with weekly events to suit everyone; including games or quiz nights as well as trips.

Q. What type of activities does the Society participate in?  
A. We arranged a trip to Milton Keynes and London to visit Bletchley Park, which tells the story of World War 2 and how the Enigma machine works. We then visited the National Science Museum and Natural History Museum and also enjoyed the Winter Wonderland in Hyde Park. More recently, we planned a trip to Barcelona, in which we also invited the Physics Society.

Over the year we also welcomed two visiting lecturers, who gave seminars on their field of research. These seemed to engage a lot of our members and non-members; with over 120 people attending both events. We plan to host more events like these in the future.

Q. Does the Society run social events?  
A. Yes! In the last week of each month, we participate in two pub quizzes, where members turn up to play and socialise with each other. Throughout the year we also have a number of events such as the Halloween movie marathon, Christmas meal and bowling. Our favourite to organise was the annual games night, which involved teams competing in a range of games and puzzles to win prizes, not to mention the free pizza!

Q. Do you fundraise?  
A. This year we held four fundraisers for charities and the society. Each year, in collaboration with the Physics Society, we hold a charity quiz and raffle to which everyone is welcome. We also held two successful bake sales, and also collected food and other donations such as gloves, hats and toys to donate to the local foodbank and homeless shelter. Over the year we raised over £500 for charity.

Q. Are there opportunities to gain skills for the future?  
A. This year the society has started an Outreach scheme, allowing members to deliver activities in schools to get young students excited about STEM subjects. These include a mini-course in cryptography and a team game called ‘Little Z’, in which students have to solve physical and mental puzzles using maths. We are currently working on creating international links to promote maths to students across the globe.

Q. What is the best thing about being part of the Society?  
A. This society is a great way to interact with brilliant people from various backgrounds, and take part in exciting activities. I have really enjoyed the past two years as part of this society, as I have tried new things and challenged myself. Our members have enjoyed it so much that we were shortlisted for ‘Society of the Year’ and ‘Academic Society of the Year’ at the Students’ Union and Societies Awards 2017.
UCLan hosts IMA lectures and a variety of other talks and seminars, which develop students’ broader knowledge of mathematics, and introduce them to additional applications of mathematics in a variety of specialist areas.

The IMA is one of the professional bodies for mathematics in the UK. It draws its membership from academia, industry and education and celebrated its 50th anniversary in 2014. The mathematics degrees at UCLan are accredited by the IMA.

Recent talks include a presentation from Dr Paul Truman on the subject “To me, to you: the Three Pass Protocol”. Cryptography, i.e. sending and receiving messages securely is used everywhere, just think of all the online bank transactions that you make. In traditional cryptography the sender of a message uses a key to convert a message into a cypher, which then can be decrypted by the receiver using the same key. But for the receiver to have the key there must have been a meeting with the sender; this is impractical when messages are sent worldwide between billions of different people. The talk showed how these keys work and how mathematics has enabled the development of a method where users can communicate safely without having to meet and exchange keys.

Find out more:

StudyAtUCLan
@UCLanMaths
There is a nationwide shortage of mathematics teachers – but a significant proportion of UCLan Maths students pursue teaching as a career.

At UCLan we offer a third year teaching placement module (Undergraduate Ambassador Scheme) to enable students to get a taste of teaching and to provide experience necessary for teacher training applications. There are many other opportunities to work with schools and younger students and develop key teaching skills. UCLan mathematics students have been very successful in securing places for teacher training after graduation and placements in schools.

There are bursaries and scholarships available to students that want to go into teaching, and in 2018 three of our placement students won prestigious IMA Mathematics Teacher Training Scholarships. Lauren, one of the scholarship winners, has taken advantage of many of these opportunities. She tells her story:

“I believe everyone has the ability to achieve what they want as long as they have someone to motivate and inspire them. I would like to help inspire the future generation through teaching. I have been involved in a number of educational activities in schools, which include developing and running a cryptology mini-course; taking part in an event for high school students visiting the university; and running sessions in different high schools which aim to make students pique their interest in Mathematics.

I have been a PASS (Peer Assisted Study Sessions) leader. PASS focuses on helping to develop students’ ability to work independently or as groups, build confidence and reduce dependence on the lecturer. Often one person’s weakness is another’s strength and during PASS sessions students can help each other to build understanding and look at alternative approaches to tackling problems.

I have attended a number of school placements (mostly through the UAS Mathematics teaching placement), which are necessary to enrol for a PGCE. Both the Outreach Program and PASS have allowed me to take charge from the organisation to the running of session, allowing me to gain many skills such as time management and confidence in my approach.

I would recommend UCLan to someone interested in learning mathematics to teach as there is a large amount on offer to help build experience and develop the skills needed to become a great teacher.”
1. WHAT IS THE UNIVERSITY AMBASSADORS SCHEME?

The Undergraduate Ambassadors Scheme (UAS) gives undergraduate students the opportunity to study a classroom-based module as part of their degree. The module comprises a placement in school, developing an educational project and delivering it.

2. WHY DID YOU CHOOSE TO DO THE UAS?

My main motivation for taking part in this module was to gain an insight into the teaching profession. I have always been sure that I wanted to teach, but to have the opportunity to observe the different challenges faced by teachers and to learn about the different teaching styles was one that I was keen to grasp.

Since I intended to apply for a PGCE, the module provides participants with the requisite amount of observational hours that many providers ask of their applicants. As a result, the UAS has taken away the responsibility of organising this, which can be difficult.

3. WHAT DID YOU LEARN DURING YOUR PLACEMENT AT MANCHESTER GRAMMAR SCHOOL?"

My experience at Manchester Grammar School has taught me so many things. First of all, the placement has given me further assurance that teaching is the career for me. I have been able to observe a number of teachers across a wide age range (Y6 - Y13), which has shown me a variety of teaching methods. Another important aspect of teaching is classroom control. Having seen the different approaches to discipline and control, I have realised that I would like to assert a calm authority over my classrooms, in the future, as opposed to raising my voice to regain control.

One of the main challenges a teacher faces is to keep the whole class engaged with the lesson. I have seen this achieved in several ways, often by introducing a fun task, such as quizzes to cement learning. The right to learn is one that all students are entitled to and this will only happen if they are participating in lessons.

4. HAVE YOU GOT A PLAN FOR THE FUTURE AFTER GRADUATION?

Following graduation, I intend to study a PGCE in Secondary Mathematics at Edge Hill University, with the goal of becoming a Secondary School Mathematics teacher. This has been a target of mine since my own time at High School and has been further fuelled by my participation in this module.

5. WHAT MAKES YOU WANT TO TEACH?

I believe that teaching is one of the most important professions, as they are in a position to impact the lives of future generations. In this way, all teachers have a key input into future discoveries and advancement of society. I relish the challenge of inspiring students to pursue a career in mathematics and achieve the same amount of enjoyment as myself.

6. WOULD YOU RECOMMEND A FELLOW STUDENT TO TAKE THE UAS MODULE?

I would highly recommend the module to all students, not just those interested in teaching. There are many benefits that are not just limited to one career path.

The placement allows you to develop many skills that are transferrable to various careers. Organisational skills, teamwork and the need to meet deadlines, as it is easy to become overloaded with work. In addition to this, the log book enables you to develop the skills of analysis and evaluation, in reference to what has been seen. Public speaking is a useful skill to develop and the Project part of the module enables this. The project requires you to find an area of focus and deliver some content to some students. For example, my own Special Project was based on the real world applications of the mathematical concepts we learn, as I felt that schools often neglect to share this.

Finally, the placement allows you to assess the pros and cons of the teaching profession. This is useful for prospective teachers or those who may be unsure of their next step after graduation.
Charlotte Kestner joined UCLan in 2012 and is a Lecturer in Mathematics, teaching on both the BSc (Hons) and MMath (Hons) course. Since her arrival, Charlotte has founded the Model Theory Research Group and spent time working in partnership with Stellenbosch University in South Africa.

Q. What teaching responsibilities do you have?
A. I currently teach Numerical Analysis in the second year; this module is about developing computer programmes to help us solve problems, which we cannot solve with pen and paper. In the third year I teach Logic, which is very much related to my research field. This module is an introduction to the formal languages and Model Theory, covering various topics including the different sizes of infinities. In the fourth year I teach Topology, where we study formal notions such as spaces and distances.

Q. What other activities does your role involve?
A. I am also a researcher, and my interest is divided between Model Theory and Mathematical Education. For the Model Theory side, I am one of the Lancashire and Yorkshire Model Theory Seminar (LYMOTS) founders and their current organiser. LYMOTS is a network funded by the London Mathematical Society and has model theorists from the University of Leeds, University of Manchester and UCLan. We meet once per term for research discussions where people present their current research. In the summer we have a workshop, where open problems in our research are highlighted and discussed. We then work in groups together to solve these problems in turn creating new collaborations.

In regards to Mathematical Education, I have noticed that many high school students disengage with mathematics during the course of their studies. I am interested in making more students enjoy the beauty of mathematics, and I have worked with people from Outdoor Learning to create fun and engaging activities. I have also developed the three-day residential course in Wales that all Maths students do in their first year. I have also undertaken comparative educational research with a focus on mathematics education in Benin, West Africa.

Q. How does your research feed into the undergraduate maths programmes?
A. Model Theory is a part of mathematical logic which analyses mathematical structures from a logic perspective, and thus has applications to many other areas. In particular, I study mathematical structures with notions of space and dimensions, and thus have strong links with Topology. Two high-level modules I teach (Logic and Topology) are informed by my own research, and I offer projects in the third and fourth years on more specialised aspects of Model Theory, such as o-minimality.

Outside the standard programme I offer many opportunities to students interested in working in education. This has included travelling to Benin to work and engage with schools there. Students who worked with me in my educational projects wanting to do a career in teaching, have been very successful afterwards in securing training scholarships and teaching jobs.

Q. Can you tell us more about your work in Benin?
A. I am part of a local Non-Profit Organisation called Servime, whose interest is education and alphabetization. Due to poverty, and lack of perspectives, many students drop out of school as early as primary years, missing the chance to get educated and improve their lives.

I went to the Atacora region of Benin with three mathematics students for two weeks to work in schools. The main goal was to encourage children to continue their studies by showing the importance of mathematics in real life. We also did a conference with university students and visited the sights of the country. I plan to continue to work with the schools we visited and organise more trips there in the future, giving my students a unique African experience.
Each summer there are opportunities to take part in UCLan’s undergraduate research intern scheme, spending the summer working closely with a member of staff on a research project. Experience what it is like to undertake cutting-edge research, developing a variety of skills highly valued by employers.

**THOMAS KIRK**

Thomas graduated in 2015 with a first-class BSc (Hons) Mathematics degree. He is so passionate about maths that he wanted to go beyond studying: becoming a researcher and discover new Mathematics!

He got a summer research internship in 2014 and, after that, he obtained a fully funded PhD position at UCLan. He has participated in national and international conferences, been invited to speak at seminars, and spent a month in Münster as part of his studies.

Thomas recalls his experience:

“My internship at UCLan provided me with an insight into the research environment. Being exposed to work beyond lectures and assignments was a breath of fresh air, and allowed me to experience a taste of life as a research student. I was given time and resources to explore areas of mathematics I had no idea even existed which catapulted my enthusiasm for the subject even further, cementing my desire to pursue postgraduate education.”

“I believe that the structure of the internship provided an excellent bridge for the gap between undergraduate mathematics and postgraduate research.”

“Studying for a PhD at UCLan is a great experience. Solving new problems is exceptionally rewarding and the sense of achievement and personal growth that comes from doing original research is unparalleled.”

Find out more:

- StudyAtUCLan
- @UCLanMaths
Graduate Careers

Mathematics graduates can be found throughout industry, business and commerce, in the public and private sectors, with large employers and in small organisations. Employers value the intellectual rigour and reasoning skills that mathematics students acquire, as well as their analytical approach to problem-solving.

Who employs mathematicians?
Maths graduates are not always aware of the employment opportunities available to them. A mathematics degree can open up a world of career opportunities. Here’s a sample of the various sectors who employ graduates with mathematical skills, but there are many, many more.

Type of Work for those in Employment

Higher Education Statistics Agency’s Destinations of Leavers from Higher Education survey (DLHE) examine first degree graduate destinations six months after they graduated. Results from 2014 for Mathematics show:

Based on data for 2013/14 for students graduating with Mathematics degrees in England and Wales.

Find out more:
StudyAtUCLan
@UCLanMaths

WHO EMPLOYS MATHEMATICIANS?

A recent study ranks maths graduates third (after medicine/dentistry and economics graduates) for salaries

Source: Institute to Fiscal Studies

*Information sourced from IMA careers website.
Meet our Graduates

In the past few years, UCLan mathematics graduates have gone into a number of the “usual” mathematical careers, including actuarial work and accounting, banking graduate schemes, teaching, and further study (including MSc and PhD study). A number of our graduates have pursued other, more surprising careers, including NHS management, criminal investigation in the police, working in the power generation industry, and roles in the charity sector.

SIMON McCORMICK
BSc (Hons) Mathematics,
2015 graduate
Senior Pricing Analyst –
Co-op insurance

“I’ve always loved maths from a young age and wanted to be able to use my degree in my day to day work after graduating. Maths has so many applications and the UCLan course offered a good mix of pure and applied mathematics to give me a broad knowledge of how maths can be used in different industries.

I’ve always been interested in the predictive power of maths, how certain events and behaviours can be brought down to algorithms and trends. Working in marketing was a big eye opener into how much a business relies on good statistics to empower its decision making, and this along with a mix of the good ethics that the Co-op brings to the industry, cemented my decision in working for the company.

After graduation, I worked in marketing analytics in London before moving to a mathematical modelling role for the Co-op, where I worked on the motor and home insurance pricing models. Within my first year and a half I successfully launched a new piece of software with the Co-op and got promoted to a senior role.

I now manage the upkeep of pricing and risk models using historical claims and market data, allowing the company to price insurance in a profitable and fair way for our customers and business needs. I also oversee the work of Junior Analysts and make recommendations on segments of the market to change prices in.

Maths opens so many doors in terms of career options that I can’t recommend it as a course enough, even if you’re not sure about what you want to do after graduating the varied topics of the course can offer a great insight into the many things you can move onto with maths. Data is becoming bigger than ever and most employers offer training to apply your maths knowledge to data science! Apart from my studies, the people I met and the time spent in and around Preston were my favourite times. It was my first time living away from Northern Ireland and pretending to be an adult and I really felt at home at UCLan.”

SHABAZ BHATTI
BSc (Hons) Mathematics,
2015 graduate
Flight Coordinator –
London Heathrow

“I always had a passion for mathematics and wanted to study it at degree level.

Since I graduated, I wanted to find a career within the aviation industry (a passion of mine) but also have mathematics involved. Hence I got myself a role as a Flight Coordinator for Heathrow Airport. I allocate airport slots to airlines around the world to operate at Heathrow. An airport slot is a permission given by a coordinator to an airline to use the infrastructure and facilities of a level 3 coordinated airport. This role allows me to manage demand and capacity to fully utilise, to maximum efficiency, the constrained infrastructure of Heathrow Airport.

My degree has helped enormously! The vital skill that studying mathematics at UCLan gives to its graduates is logical thinking. This skill helps in all walks of life as it makes you stand back from a problem and ‘think out of the box’ (a phrase all mathematics lecturers used to use).

I will always remember our trip to Toulouse (France) in our second year! This was a fantastic opportunity provided by UCLan for students to go and see first-hand mathematics in real-life. That trip was a very good motivator as it was first-hand experience of the variety of roles mathematics can offer.

I would definitely recommend studying at UCLan, because of the range of opportunities and the quality of the course delivery. What I really liked was the fact that students could carve the path of their own studies to their own desires. The mathematics department worked hard to create the perfect timetable and provide help whenever the student required. The lecturers were very friendly and welcoming.”
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In compiling this guide, all reasonable care has been taken to ensure its accuracy at the time of printing (July 2018). We hope you are happy with your UCLan experience; if not we have a complaints procedure in place, please visit uclan.ac.uk/studentcontract.