

BSc MATHEMATICAL SCIENCES

Course Code: CK407 Mathematical Sciences

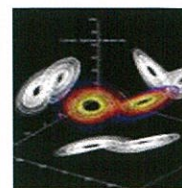
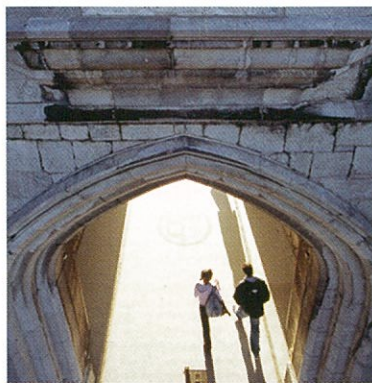
Duration: 4 years

Further Information:
T: +353 (0) 21 420 5818/5817
E: maths@ucc.ie

Why study Mathematical Sciences?

The mathematical sciences, in terms of both language and knowledge, provide the foundation of all science and technology. Mathematics is an indispensable tool in the physical sciences, engineering, medicine, the life sciences, and business and finance. Modern research methodologies in many areas have their origins in the mathematical disciplines, and in the near future mathematics is expected to play an increasingly important role in the national economy and in other research disciplines.

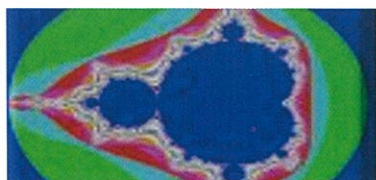
From CK407, you can study a number of different mathematics degree programmes - BSc Single Honours: Mathematical Sciences; Financial Mathematics and Actuarial Sciences; BSc Joint Honours: Mathematics and Physics; Applied Mathematics and Physics. The First Year course gives a broad introduction to pure mathematics, applied mathematics, probability and statistics, enabling the student to specialise in later years in the disciplines that take her or his interest.



If you particularly enjoyed Mathematics or Applied Mathematics as Leaving Certificate subjects, then CK407 deserves your serious consideration because only here will you be able to devote yourself fully to the Mathematical Sciences.

Career Opportunities

Graduates of the School of Mathematical Sciences are not narrow specialists: they can enter many types of employment. A mathematical science degree is seen by an employer as evidence that a student can think independently and quickly learn new skills. Thus employment opportunities are not confined to obvious areas such as teaching and the civil service; employers realise that these graduates are intelligent people with a solid analytical foundation who can rapidly acquire new skills in any numerate discipline. The 2005 EU Tuning Report on Education Structures in Europe, drawn up by experts from 135 institutions across Europe, lists a huge range of career opportunities for graduates with a mathematical/ statistical degree, including careers such as management consultant, actuary, banker, accountant, scientific researcher, meteorologist and cryptologist. Some of our recent graduates have moved into software/computing, the pharmaceutical and biotechnological industries, and engineering-based industries such as electronics. Several of these positions might seem dependent on having an appropriately specialised degree but this is not the case: a mathematical sciences degree is a powerful qualification that opens numerous career doors.



BSc MATHEMATICAL SCIENCES

Sept 2013



What will you be studying?

Year 1

Mathematical Sciences: Pure Mathematics (MA); Applied Mathematics (AM); Statistics (ST) (40 credits) Plus 20 credits from Accounting and Finance, Biology, Chemistry, Computer Science, Economics, Geology, Physics

Year 2

AM (25 credits) + MA (25 credits) + ST (10 credits) or AM (25 credits) + MA (15 credits) + ST (20 credits) or AM (20 credits) + MA (20 credits) + ST (20 credits) or AM (15 credits) + MA (25 credits) + ST (20 credits)

Year 3

AM (30 credits) (at least 20 credits AM taken in Yr 2) + at least 10 credits from each of MA and ST or MA (30 credits) (at least 20 credits MA taken in Yr 2) + at least 10 credits from each of AM and ST or ST (30 credits) (at least 20 credits ST taken in Yr 2) + at least 10 credits from each of AM and MA or combination of AM/MA: AM/ST: MA/ST (30 credits each) where at least 20 credits of each subject have been taken in Year 2

Year 4

AM (30 credits) (at least 30 credits AM taken in Yr 3) + at least 10 credits each from MA & ST or MA (30 credits) (at least 30 credits MA taken in Yr 3) + at least 10 credits each from AM & ST or ST (30 credits) (at least 30 credits ST taken in Yr 3) + at least 10 credits each from AM & MA or combination of AM/MA: AM/ST: MA/ST (30 credits each) where at least 30 credits of each subject have been taken in Year 3

Postgraduate Opportunities in UCC

Programmes in the School of Mathematical Sciences lead to MSc (Master of Science) and PhD degrees. In addition, the College of Science, Engineering and Food Science offers a wide range of one-year (full-time) and two-year (part-time) professional diplomas.

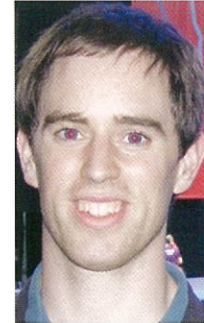


For further information contact:
**The College of Science, Engineering
& Food Science, UCC**
Tel: +353 (0)21 490 3075
Email: college-sefs@ucc.ie
Web: <http://www.ucc.ie/sefs>

Graduate Profile

Cillian McNamara

BSc (Mathematical Sciences) 2008
Position: Options Trader



I graduated from UCC in 2008 with a BSc Degree in Mathematical Sciences. The subjects I studied were Mathematics and Statistics. I chose this degree because in secondary school I had a keen interest in Mathematics sparked by my involvement in the Irish Maths Olympiad. I was not disappointed either.

In UCC the Mathematics courses were engaging, challenging and interesting. While the Leaving Cert presented Mathematics as this finished product it was interesting to find out the inner structures of Mathematics as well as how expansive a subject it is. The Statistics courses taught in UCC are in-depth as well as practical. I learned the theory behind all of the statistical tests and also learned how to apply these tests to Data in Computer labs something that proved very useful later in Industry.

After graduating I got a job as an Options Trader for Susquehanna International Group, an American company with its European Headquarters in Dublin. The analytical, logical and problem-solving skills I learned in UCC are invaluable to my day-to-day job.

Entry Requirements

CK407: Minimum HC3 in two subjects & passes in four subjects at H or O level in the Leaving Certificate, from Irish, English, Mathematics, and three other subjects recognised for entry purposes. Additional entry requirements include HB3 in Mathematics. Students must also have the requisite points for entry to this course.

