INTRA Programme
BSc Physics with Astronomy

The Objective of this four-year, full-time degree is to produce graduates with a thorough understanding of physics and all the transferable skills associated with a physics degree and associated skills in IT and mathematics, combined with a good background in astronomy and astrophysics as a specialisation (ie a physics "major", astronomy "minor"). The courses taught within the degree programme provide the students with skills in the following areas:

— Computer programming and computational physics
— Image processing and analysis
— Signal acquisition instrumentation
— Optical instrumentation and photonics design, validation etc.
— Statistical analysis

Work Areas
Students from the BSc Physics with Astronomy will have the ability to work in roles listed below:

— Manufacturing
— Optoelectronics
— Medical Physics
— Radiation Protection
— Energy Sources & Conservation
— Optical instrumentation/design
— Electronics n Information Technology
— Aerospace Engineering
— Meteorology
— Signal acquisition/processing
— Statistical analysis
— Telecommunications
— Software Engineering
— Environmental Monitoring
— Process Control and Instrumentation
— Image processing and analysis

Programme Outline
During the first two years, courses are provided in classical and modern physics as well as in mathematics, electronics and computing. From second year on, in addition to core physics modules students take courses in subjects such as instrumentation, optics, computing, mathematics, space science and technology, astronomy and astrophysics and have options to take further modules in advanced areas such as digital signal processing. There is a strong emphasis on developing practical laboratory skills and other generic, transferable skills such as report writing, oral presentation, group work and project planning skills throughout the course. An important element of Physics programmes at DCU is the emphasis placed on project work, report writing, oral presentations and laboratory skills throughout the four-year programme.
**Student Availability**

Students are available for interview from early October onwards. For further information, please contact:

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T: +353 01 700 5514
W: dcu.ie/intra
LinkedIn dcu-intra-office

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**INTRA (Integrated TRAining) Work placements**

Students from the BSc Physics with Astronomy are eligible to participate in an eight month INTRA placement at the end of third year, from February to September inclusive, or alternatively February to May period to prepare for, execute, and then report on work performed during and after a field trip to a foreign observatory.

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<td>— Programming</td>
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<td>— Scientists</td>
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