

## **HND Applied Sciences** *(SCQF Level 8)*

Full-time

### **Where will I study?**

<b>Course code</b>	<b>Location</b>	<b>Duration</b>
ACDAP	Aberdeen City Campus	2 Years

### **Welcome from Director of Curriculum**

As the current Director of Curriculum, I would like to welcome you to the School of Engineering, Science and Technology at North East Scotland College. The School provides courses in Engineering, Science, Construction and Automotive Engineering, all of which offer outstanding opportunities for students to attain industry relevant qualifications which enable progression into or within the workplace or onto further study.

We are very fortunate to have state-of-the-art teaching facilities, which means that each and every one of our students will experience industry-focused, high quality and inspirational learning. Our main focus is ensuring that on completion of your course, you are capable and confident when it comes to entering the workplace or progressing towards further study at College or University. We pride ourselves in offering vocationally relevant opportunities for all, whether you are studying at introductory level or joining one of our advanced courses. We would be delighted to help you achieve your employment aspirations.

**Susan Grant, Director of Curriculum for Engineering, Science and Technology**

### **Introduction to the course**

Applied sciences are used in almost all industries, from health services and pharmaceuticals to food, drink and energy. This wide-ranging, advanced level course covers theoretical and practical aspects of biological and chemical sciences. A large amount of hands-on training is involved, giving you a chance to put theory into practice and develop valuable skills in experimentation, analytical testing and modern instrumentation.

### **Entry requirements**

Applicants should have Higher qualifications in Chemistry and Biology, or a Higher in one of these subjects and a National 5, Intermediate 2 (at a minimum of grade B) or Standard Grade Credit level qualification in the other. Alternatively, applicants should have completed the NC Applied Sciences SCQF Level 6 course at grade B or above. Please note that applicants will be required to have a laptop.

### **What subjects will I be studying?**

This course will strengthen your existing knowledge through in-depth study of a variety of key scientific areas centred around organic, inorganic and physical chemistry, biology, biochemistry, physiology microbiology and analytical science.

## Year 1:

- Laboratory Skills for Science Industries
- Fundamental Chemistry: Theory and Laboratory Skills
- Mathematics for Science 1
- Cell Biology: Theory and Laboratory Skills
- Inorganic Chemistry: Theory and Laboratory Skills
- Physical Chemistry: Theory and Laboratory Skills
- Spectroscopic and Analytical Techniques
- Biochemistry: Theory and Laboratory Skills
- DNA and Genetics
- Graded Unit 1: Investigation
- Introductory unit in Chemistry **or** Biology **or** Physics **or** Biotechnology

Plus two credits from the following:

- Plant Biology
- Animal Biology
- Organic Stereochemistry: Theory and Laboratory Skills
- Instrumental techniques 1

## Year 2:

- Chemistry: Laboratory Practical Skills
- Statistics for Science 1 or Maths for Science 2
- Human Body Structure and Function
- Organic Chemistry: Theory and Laboratory Skills
- Transition Metal Chemistry: Theory and Laboratory Skills
- Protein Structure and Function
- Thermodynamics and Kinetics: Theory and Laboratory Skills
- Physics for Life Sciences
- Microbiology: Theory and Laboratory Skills
- Graded Unit 2: Project

Plus two credits from the following:

- Human Metabolism (double credit unit)
- Main Group Inorganic Chemistry: Theory and Laboratory Skills
- Aromatic Chemistry: Theory and Laboratory Skills

## Assessment methods

This course is assessed on a continuous basis, with each unit being assessed separately. For most of the Science units this will involve a single end of unit test and assessed practical activities. For certain units, essays, presentations, and case studies will also be required. Graded Units will be undertaken in College, but are subject to external verification by the SQA. Candidates who pass a Graded Unit will be awarded an A, B or C grade.

## Dress code

Students should dress appropriately for undertaking practical laboratory work, and will be required to wear lab coats and safety glasses for all practical activities.

## Course progression

Students who successfully complete this course may progress to degree level study at one of our associate universities.

## University links

North East Scotland College has links with a wide range of universities from across Scotland. Every one of our HND level courses has articulation opportunities where you can progress from your chosen course to a related university degree. This is an excellent option for those who may want to come to College at an introductory level, and then work their way towards degree level study.

[Find out more about our associate universities in the University Links section of the NESCol website.](#)

## University progression

### Robert Gordon University (RGU)

- BSc/BSc (Hons) Bioscience with Biomedical Sciences year 3 (subject to conditions)
- BSc/BSc (Hons) Forensic and Analytical Science year 3 (subject to conditions)
- BSc/BSc (Hons) Biomedical Science year 3 (subject to conditions)

### University of Aberdeen

- BSc Biological Sciences year 3 (subject to conditions)
- BSc Chemistry year 3 (subject to conditions)
- BSc Pharmacology year 3 (subject to conditions)
- BSc Physiology year 3 (subject to conditions)
- BSc Sports & Exercise Science year 3 (subject to conditions)
- BSc Biochemistry year 3 (subject to conditions)
- BSc Biotechnology (Applied Molecular Biology) year 3 (subject to conditions)
- BSc Genetics year 3 (subject to conditions)
- BSc Genetics (Immunology) year 3 (subject to conditions)
- BSc Immunology year 3 (subject to conditions)
- BSc Immunology and Pharmacology year 3 (subject to conditions)
- BSc Microbiology year 3 (subject to conditions)
- BSc Molecular Biology year 3 (subject to conditions)

AGREED PATHWAY TO YEAR 2 ONLY (all subject to conditions):

- BSc Biology year 2
- BSc Conservation Biology year 2
- BSc Ecology year 2
- BSc Environmental Science year 2
- BSc Marine Biology year 2
- BSc Plant & Soil Science year 2
- BSc Zoology year 2
- BSc Physics year 2

### Abertay University

- BSc (Hons) Biomedical Sciences year 3 (subject to conditions)

### Queen Margaret University

- BSc (Hons) Applied Pharmacology year 3 (subject to conditions)
- BSc (Hons) Human Biology year 3 (subject to conditions)
- BSc (Hons) Nutrition year 3 (subject to conditions)
- BSc (Hons) Nutrition and Food Science year 3 (subject to conditions)

### University of the Highlands & Islands (UHI)

- BSc (Hons) Environmental Science year 3 (Inverness College UHI, Moray College UHI, North Highland College UHI, Perth College UHI) (subject to conditions)

### The Open University

An HND Applied Sciences will give 240 credits towards the 360 credit BA/BSc Open Degree with Honours or 180 credits towards the 300 credit BA/BSc Open Degree.

A reduced amount of credit transfer can be awarded against other qualifications, such as:

- BSc(Hons) Natural Sciences
- BSc (Hons) Environmental Science
- BSc (Hons) Environmental Studies

## Employment

Employment opportunities are typically at technician or researcher level in science-related industries.

## Useful information

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<b>Faculty:</b>	Science
<b>School:</b>	School of Engineering, Science and Technology
<b>Faculty Manager:</b>	Colin Tweedie Email: <a href="mailto:c.tweedie@nescol.ac.uk">c.tweedie@nescol.ac.uk</a>
<b>Curriculum &amp; Quality Manager(s):</b>	Douglas Fraser Email: <a href="mailto:douglas.fraser@nescol.ac.uk">douglas.fraser@nescol.ac.uk</a>

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## Guidance and Support

### Guidance

You will be assigned a Guidance Tutor when you are enrolled on the course. They will act as your primary contact should you have any issues, personal or involving your course, whilst at North East Scotland College. They will support you for the duration of your course along with relevant teaching staff. For assignments and assessments you will be provided with detailed feedback where possible, allowing you to pinpoint areas of good performance and areas that may need improvement - essential for your educational development.

[View our Guidance Tutor contact information.](#)

### Support

Our Student Services team are dedicated to helping all students with a range of factors that might affect your time at College. They can help you with funding queries, careers advice, learning support and more!

[Visit the Support section of our website for more information](#)

## Learning Resources

The College has a number of excellent learning resources available to assist and support the delivery of our classes across full-time, part-time and distance learning courses. They aim to enhance the quality of your learning experience.

[Find out more about NESCol learning resources](#)

## Library+

Our Library+ sites – at the Aberdeen City, Aberdeen Altens and Fraserburgh Campuses – provide all students with access to books, journals, newspapers, core skills materials and more! You'll also find laptop friendly areas, private study/research booths and printers, scanners and photocopiers.

[Find out more about what our Library+ services can offer](#)

## College calendar

Have a look at our [College Calendar](#) for further information on key dates throughout the year.

**Disclaimer:** Please note that the information put forward in this course specification document is subject to change at any time, and without prior notice. We have taken every care to ensure that the information provided is as accurate and up-to-date as possible, but we are not liable for the content of or any omissions on this document. This includes any inaccuracies, errors or misstatements in

the information/data presented.