

# Centre for Applied Sciences

Welcome to the Centre for Applied Sciences – a nationally recognised centre for science education.

The Centre has a truly 'outstanding science offer' (Ofsted 2008). There are many reasons why you should consider studying science here.

We have an excellent record of achievement. Each year hundreds of students progress onto degree courses or take up employment in specialist areas such as optical dispensing and crime scene investigation. Of these, 160 students progressed from our diploma courses to university with many studying Medicine, Pharmacy and Optometry. The Applied Optics provision is part of a designated Centre of Excellence, training Opticians. You will benefit from some unique facilities as well as close links with many of the industry's leading companies.

Our Sports Science team have access to state-of-the-art equipment and facilities and our human performance laboratory is the only one of its kind in a further education college.

We offer unique Forensic Science courses, which were developed in partnership with Queen Mary, University of London and the Metropolitan Police. This ensures our course content relates directly to the work environment experienced by scene of crime officers.

In addition, we also boast a range of Medical and Health Science courses that are aimed at those who wish to progress to a university degree. Above all, our student success is the best advertisement for what we do at the college.

## Derek Puddick

Director, Centre for Applied Sciences




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EC1V 7DD

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153, 205, 214, 274, 341,  
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Open Day: Saturday  
 14 November 2009, 10.30am-3pm  
 6 February 2010, 10.30am-3pm  
 Book online [www.candi.ac.uk](http://www.candi.ac.uk)



THE QUEEN'S  
ANNIVERSARY PRIZES  
2007

In 2007 the College was awarded a prestigious Queens Anniversary Prize for creating pathways into employment and higher education in the sciences.

We are proud to work in partnership with:



CITY UNIVERSITY  
LONDON



LONDON  
metropolitan  
university



Queen Mary  
University of London



## Diploma in Environmental and Land-Based Studies

Are you fascinated by the natural world and the environment? This new course aims to equip you with the knowledge and skills to help deal with the big environmental challenges of the future.

You will have an opportunity to work with prestigious organisations such as London Zoo, The Royal Geographical Society and King's College University of London. In the UK the environmental and land-based sector is worth £8.9 billion and employs 720,000 people.

You will learn about vitally important issues such as global warming and gain practical skills working on real nature conservation projects. You will grow food, care for animals and produce renewable energy. There will be plenty of work experience activities to get involved in, ranging from big city projects like the Kings Cross development to helping vets care for new-born lambs.

### How can you access the new diplomas?

These new diplomas are offered at three levels:

- Foundation (Level 1) - provides an excellent introduction and is equivalent to five GCSEs at grade D-G
- Higher (Level 2) - equivalent to seven GCSEs at grade A\*-C
- Advanced (Level 3) - university entrance level, equivalent to three and a half A Levels



### Foundation

### Higher

### Advanced

### What are the entry requirements?

- |   |   |  |
|---|---|--|
| <ul style="list-style-type: none"> <li>• 4 GCSE's at E or above, or entry level 3 (preferably including Science, English and Maths)</li> <li>• An interest in environmental and land-based studies</li> <li>• A good reference</li> </ul> | <ul style="list-style-type: none"> <li>• 4 GCSEs at grade D or above (including English and Maths) or</li> <li>• BTEC Introductory Diploma in Applied Science with a Merit or above (including Level 1 qualification in English and Maths e.g. key skills)</li> <li>• A good reference</li> </ul> | <ul style="list-style-type: none"> <li>• 4 GCSEs at grade A*-C or above (including Science, English and Maths) or</li> <li>• BTEC First Diploma in Applied Science with a Merit or above (including Level 2 qualification in English and Maths e.g. key skills)</li> <li>• A good reference</li> </ul> |
|---|---|--|

### What will you study?

You will find out about the natural world and also about different types of employment. You will work with plants and care for animals and learn how humans can damage the environment. The course also involves an environment project involving the community.

You will find out about plant and animal care and you will gain plenty of practical experience. You will learn about energy, environmental monitoring and sustainable development. You will find out about different jobs in the industry and work on a real nature conservation project.

Subjects include: Ecology, Environmental Management, Plant and Animal Care, Plant and Animal Sciences, Sustainable Development, Global Environment and Pollution. You will work on major environmental improvement projects and learn how to run your own business in the environmental and land-based sector. You will also design and run your own extended project from a range of relevant subject areas.

## **NEW** BTEC National Diploma\* in Animal Management

**Level:** 3 **Duration:** 2 years

**Location:** Centre for Applied Sciences

### What will you study?

You will complete units in a range of animal based studies that cover a variety of disciplines including animal health and nutrition, biology, exotics, conservation, behaviour and genetics.

The course involves lots of practical work and visits to conservation areas, zoo's and farms.

You will also do an extended research project. The emphasis is on continuous assessment - there are no exams. You learn by completing projects and assignments that are based on realistic workplace situations and activities.

### What are the entry requirements?

- 4 GCSEs at grade A\*-C, (preferably including Science, Maths and English) or
- BTEC First Diploma in Applied Science with a Merit or above (usually including Level 1 or above qualification in English and/or Maths e.g. key skills).
- Applicants must also have a good reference, interview and assessment. Your commitment and interest in the subject will also be assessed during the interview process.

### Where will it take you?

The course provides knowledge and skills needed for a career in animal management or science.

The range of careers in science is enormous.

You may progress on to degree courses including veterinary nursing, zoology, conservation, ecology, environmental science and biology degrees.

\* Known as BTEC Extended Diploma from Sep 2010



“ I really enjoy studying plants and animals. I have found the teachers to be really friendly and helpful. ”

### **Jesse Ross**

Environmental and Land-Based Studies



## BTEC Introductory Diploma\* in Applied Science

**Level:** 1 **Duration:** 1 year  
**Location:** Centre for Applied Sciences

### What will you study?

This course will provide you with a thorough introduction to science and its applications. You will study combined science, together with communication, ICT and numeracy.

Your progress will be assessed throughout the year on assignments, projects and minor tests.

### What are the entry requirements?

- 4 GCSEs at grade E or above including Science, English and Maths or
- Entry Level qualification (usually including Entry Level 3 or above qualification in English and/or Maths e.g. key skills).
- Applicants must also have a good reference, interview and assessment. Your commitment and interest in the subject will also be assessed during the interview process.

### Where will it take you?

Upon successful completion, you can progress onto a range of BTEC First Diploma courses. Most students then go on to more advanced science courses, such as: forensics, health, medical and sports science.

\* A part of the foundation learning tier from Sep 2010

## BTEC First Diploma\* in Applied Science

**Level:** 2 **Duration:** 1 year  
**Location:** Centre for Applied Sciences

### What will you study?

You will study combined science units, including applications of chemistry, biology, physics, anatomy and physiology, as well as science and the world of work.

You will also study English, ICT and numeracy. We also provide extra English support for all students who need it.

### What are the entry requirements?

- 4 GCSEs at grade D or above or
- BTEC Introductory Diploma in Applied Science with a Merit or above (usually including a Level 1 qualification in English and/or Maths e.g. key skills).
- Applicants must also have a good reference interview and assessment. Your commitment and interest in the subject will also be assessed during the interview process.

### Where will it take you?

Upon successful completion, you can progress onto the BTEC National Diploma in Science or a variety of BTEC National Diploma courses such as: computer studies, engineering and forensics. Alternatively, you can move into employment as a science technician or assistant practitioner.

\* Known as BTEC Diploma from Sep 2010



## BTEC National Diploma\* in Applied Science

Level: 3 Duration: 2 years

Location: Centre for Applied Sciences

### What will you study?

You will complete units in biological, chemical and physical sciences. The course involves lots of practical work and visits, including an extended research project.

The emphasis is on continuous assessment - there are no exams. You learn by completing projects and assignments that are based on realistic workplace situations and activities.

### What are the entry requirements?

- 4 GCSEs at grade A\*-C, (including Science, Maths and English or
- BTEC First Diploma in Applied Science with a Merit or above (usually including Level 1 or above qualification in English and/or Maths e.g. key skills)
- Applicants must also have a good reference, interview and assessment. Your commitment and interest in the subject will also be assessed during the interview process.

### Where will it take you?

The course provides knowledge and skills needed for a career in applied science. The range of careers in science is enormous. You may progress on to degree courses including pharmacy, biotechnology, forensics, sports science and biomedical science.

\* Known as BTEC Extended Diploma from Sep 2010



“ I really enjoyed all the subjects I studied. The best way to describe them is to imagine being back at school, only with teachers that are actually good and with lessons that are relevant, interesting and stimulating. ”

### Amin Hussein Abdul

BTEC National Diploma in Medical Science



## BTEC National Diploma\* in Forensic Science

**Level:** 3 **Duration:** 2 years

**Location:** Centre for Applied Sciences

### What will you study?

You will study:

- Forensic science
- Biology including genetics
- Physiology
- Chemistry
- Physics
- Psychology
- Criminology
- Information technology
- Maths

Throughout the course you will be assessed in all subject units through coursework assignments, practical and theoretical tests, presentations and extended projects.

### What are the entry requirements?

- 4 GCSEs at grade A\*-C, (including Science, Maths and English) or
- BTEC First Diploma in Applied Science with Merit or above (usually including Level 1 or above qualification in English and/or Maths e.g. key skills)
- Applicants must also have a good reference, interview and assessment. Your commitment and interest in the subject will also be assessed during the interview process.

### Where will it take you?

On completion, you can progress to a range of science and forensic science related degree courses, including our Foundation Degree in Crime Scene Investigation.

\* Known as BTEC Extended Diploma from Sep 2010

## BTEC National Diploma\* in Health Science

**Level:** 3 **Duration:** 2 years

**Location:** Centre for Applied Sciences

### What will you study?

You will study biology, sociology, psychology, and communication.

You also get the opportunity to take part in a variety of exciting work experience placements.

### What are the entry requirements?

- 4 GCSEs at grade A\*-C, (including Science, Maths and English) or
- BTEC First Diploma in Applied Science with Merit or above (usually including Level 1 or above qualification in English and/or Maths e.g. key skills)
- Applicants must also have a good reference, interview and assessment. Your commitment and interest in the subject will also be assessed during the interview process.

### Where will it take you?

On completion, you can study a range of health related degree courses such as nursing, genetics, psychology, occupational therapy, nutrition, applied biology, pharmacology, biomedical or biological sciences, radiology, social work, chiropody, teaching and health services management.

\* Known as BTEC Extended Diploma from Sep 2010



## BTEC National Diploma\* in Medical Science

Level: 3 Duration: 2 years

Location: Centre for Applied Sciences

### What will you study?

You will study biological and medical sciences as well as specialist subjects such as clinical investigations, human physiology and genetic engineering. You will also visit laboratories and specialist medical facilities.

Assessment is through coursework and laboratory practical work rather than end of year examinations.

### What are the entry requirements?

- 4 GCSEs at grade A\*-C, (including Science, Maths and English) or
- BTEC First Diploma in Applied Science with Merit or above (usually including Level 1 or above qualification in English and/or Maths e.g. key skills)
- Applicants must also have a good reference, interview and assessment. Your commitment and interest in the subject will also be assessed during the interview process.

### Where will it take you?

Successful completion of this course will enable you to progress onto medically related degree courses such as biomedical sciences, genetics, radiography and possibly medicine.

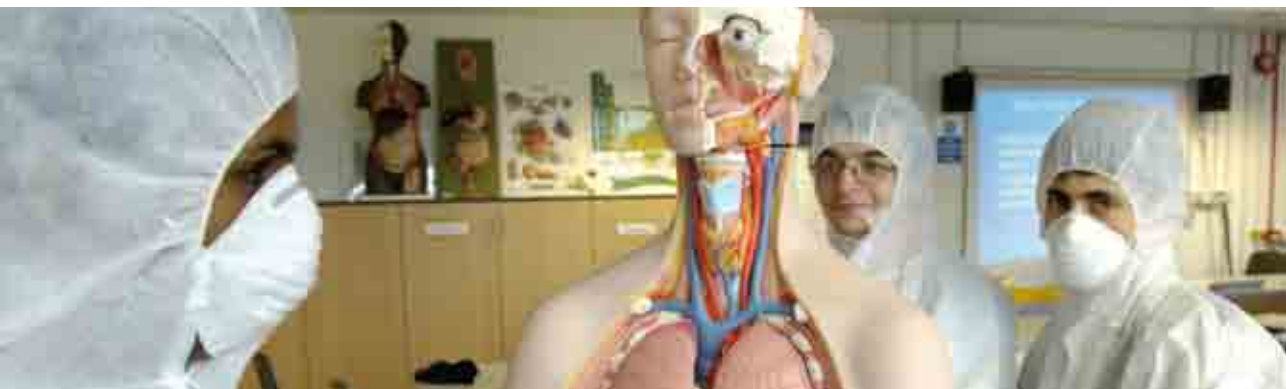
\* Known as BTEC Extended Diploma from Sep 2010



“ I am really enjoying the course, the best part is when we visit the crime scene site in Moorgate and try out what we learn. ”

### **Roberta Fontaine**

BTEC National Diploma  
in Forensic Science



## Diploma in Ophthalmic Dispensing

**Level:** 3 **Duration:** 2 years

**Location:** Centre for Applied Sciences

### What will you study?

This course covers all the topics required for the professional examinations of the Association of British Dispensing Opticians, including optics, ophthalmic lenses, mathematics, spectacle frames, anatomy and physiology, visual optics, dispensing and ophthalmic instruments. You will also study mathematics, IT, and spectacle frames and making.

### What are the entry requirements?

- 5 GCSEs at grade C or above, including Maths or Physics, and either English Language or English Literature, and one other science-based subject, or an equivalent qualification

### Where will it take you?

You can progress on to advanced courses in contact lenses or university to study optometry. If you complete the professional examinations on this course, you can register as a Dispensing Optician with the General Optical Council.

## BTEC First Diploma\* in Sport (Performance)

**Level:** 2 **Duration:** 1 year

**Location:** Centre for Applied Sciences

### What will you study?

This course combines both practical and theoretical aspects of Sports Science.

You will study:

- Anatomy
- Health and Safety
- Sports Psychology
- Nutrition
- Fitness Appraisal and
- Practical sport

You will also work towards a Sports Leader Award.

### What are the entry requirements?

- 4 GCSEs at grade D or above (including Science, English and Maths) or
- BTEC Introductory Diploma in Applied Science with a Merit or above (usually including Entry Level 3 or above qualification in English and/or Maths e.g. key skills).
- Applicants must also have a good reference interview and assessment. Your commitment and interest in the subject will also be assessed during the interview process.

### Where will it take you?

On completion, you can progress on to the BTEC National Diploma in Sports and Exercise Science or you may choose to take up employment within the sports and leisure industry.

\* Known as BTEC Diploma from Sep 2010



## BTEC National Diploma\* in Sport and Exercise Science

**Level:** 3 **Duration:** 2 years

**Location:** Centre for Applied Sciences

### What will you study?

You will study a wide range of sport and exercise science disciplines, including:

- Anatomy
- Physiology
- Psychology
- Research
- Biomechanics in action
- Exercise, health and lifestyle
- Fitness testing
- Massage
- Nutrition
- Coaching
- Sports Injuries
- Practical Team Sports
- Exercise for specific groups

### What are the entry requirements?

- 4 GCSEs at grade A\*-C, (including Science, Maths and English) or
- BTEC First Diploma in Sports (Performance) or Applied Science with a Merit or above (usually including Level 1 or above qualification in English and/or Maths e.g. key skills)
- Applicants must also have a good reference, interview and assessment. Your commitment and interest in the subject will also be assessed during the interview process.

### Where will it take you?

You can progress on to sport and exercise science related degree courses such as: sport science, coaching, exercise physiology, physiotherapy, psychology, biomechanics, occupational therapy, strength and conditioning, personal training, clinical physiology or sports nutrition.

\* Known as BTEC Extended Diploma from Sep 2010

## CYQ Certificate in Fitness Instructing

**Level:** 2 **Duration:** 5 months

**Location:** Centre for Applied Sciences

### What will you study?

You will learn the principles of fitness training; how to plan and teach safe, effective exercise sessions, as well as a range of other topics including:

- Bones and joints
- Muscles and muscle actions
- Cardiovascular and respiratory systems and responses to exercise
- How to adapt exercise to suit varied fitness levels
- Health and safety
- How to motivate and support clients

### What are the entry requirements?

- BTEC Introductory Diploma with a Merit grade or above; or equivalent qualifications
- Successful completion of a communications test
- A good academic reference

### Where will it take you?

You may choose to progress onto the Register of Exercise Professionals (REPs) at Level 2. This can lead to employment as a gym or aerobic instructor. Once qualified, you may move into teaching different disciplines such as studio cycling, step and circuits.

