

## Course Information Sheet for entry in 2016-17

### Cyber Security (EPSRC Centre for Doctoral Training)

#### About the course

The CDT in Cyber Security is a four year interdisciplinary doctoral programme which looks at the topic from a range of angles including computer science, social science, business and international relations. The core research themes are cyber-physical security, real-time security, assurance and big-data security.

As the technologies of cyberspace come to inhabit all parts of everyday life, cyber security has become everyone's problem. We face a growing collection of adversaries who are agile, opportunistic, and increasingly strategic, developing an ecosystem of suppliers involved in delivering elements of attack capability. They seek to defraud consumers, exploit their trust, or invade their privacy; to misappropriate corporate secrets and intellectual property; and/or to disrupt the operation of the state or critical infrastructure.

The CDT sets out to educate a new generation of research leaders as well as the highest tier of security professionals, who appreciate the real-world challenges which arise from security needs in existing and emerging contexts, equipped with both the expertise and adaptability to address those needs. You will need to become as agile in your thinking as the attackers are, and as resourceful in defence as their counterparts are in attack.

As a student in the CDT you will spend the first year in a group with the other CDT students in your cohort on an intensive programme of study designed to introduce the dimensions and nature of the challenge of cyber security from a range of academic perspectives.

These will include as a core, cyber security principles (systems and operations), usability, security risk management, system architectures and high-integrity systems engineering. There will also be a range of courses in research methods and tools. This understanding will be placed in the context of courses in business processes, policy and governance, international relations, and criminology. You will have access to leading thinkers and practitioners in cyber security.

Following this intensive education, you will spend the summer of the first year undertaking two mini projects in diverse areas, usually involving placement in a company or government organisation. You will normally choose these from a list proposed by supervisors and sponsors. One or both of these mini projects will typically form the basis for your long-term research project.

For this substantive project, you will be based in one of the departments contributing to the CDT, and undertake supervised research in the usual manner for a DPhil. The normal duration of this project will be three years, after which you will submit a thesis and be examined in the usual way.

During the three years of the individual research project, you will retain contact with the CDT, returning for skills training, an annual conference and other events.

The CDT programme also includes "Deep Dive Days" which are a supplement to the academic programme of classes, lectures, and seminars. They are an opportunity to interact with someone who practices cyber security daily: technologists, CISOs, security consultants, lawyers, government



risk owners and more. Some of these are visits and field trips; others take the form of a master class in Oxford. Deep Dives allow the academic material to be illustrated, and challenged, by exposure to everyday practice. Sometimes, they can become the basis of ongoing project work too.

### **Changes to courses**

The University will seek to deliver each course in accordance with the descriptions set out above. However, there may be situations in which it is desirable or necessary for the University to make changes in course provision, either before or after registration. For further information, please see the University's Terms and Conditions.

### **Expected length of course**

4 years

### **Annual fees for entry in 2016-2017**

Fee Status	Tuition fee	College fee	Total annual fees
Home/EU (including islands)	£4,121	£2,933	£7,054
Overseas	£18,770	£2,933	£21,703

The fees shown above are the annual tuition and college fees for this course for entry in the stated academic year; for courses lasting longer than one year, please be aware that fees will usually increase annually. For details, please see our guidance on likely increases to fees and charges.

Tuition and college fees are payable each year for the duration of your fee liability (your fee liability is the length of time for which you are required to pay tuition and college fees).

Graduate students who have reached the end of their standard period of fee liability may be required to pay a termly University and/or college continuation charge.

The University continuation charge, per term for entry in 2016/17, is currently £440, please be aware that this will increase annually.

For part-time students, the termly charge will be half of the termly rate payable by full-time students.

If a college continuation charge applies (not applicable to non-matriculated courses) it is likely to be in the region of £100 to £400 per term. Please contact your college for more details.

### **Additional cost information**

There are no compulsory elements of this programme that entail additional costs beyond fees and living costs. However, please note that, depending on your choice of research topic and the research required to complete it, you may incur additional expenses, such as travel expenses, research expenses, and field trips. You will need to meet these additional costs, although you may be able to apply for small grants from your department and/or college to help you cover some of these expenses.

## Living costs

**In addition to your fees, you will need to ensure that you have adequate funds to support your living costs for the duration of your course.**

The likely living costs for 2016-17 are published below. These costs are based on a single, full-time graduate student, with no dependants, living in Oxford. We provide the cost per month so you can multiply up by the number of months you expect to live in Oxford.

	Likely living costs for 1 month		Likely living costs for 9 months		Likely living costs for 12 months	
	Lower range	Upper range	Lower range	Upper range	Lower range	Upper range
<b>Food</b>	£265	£298	£2,384	£2,673	£3,177	£3,565
<b>Accommodation</b>	£469	£667	£4,221	£6,002	£5,627	£8,006
<b>Personal items</b>	£119	£244	£1,073	£2,187	£1,429	£2,915
<b>Social activities</b>	£60	£107	£539	£960	£718	£1,280
<b>Study costs</b>	£36	£73	£314	£661	£418	£880
<b>Other</b>	£19	£44	£197	£410	£265	£547
<b>Total</b>	£970	£1,433	£8,727	£12,894	£11,636	£17,191

When planning your finances for any future years of study in Oxford beyond 2016-17, you should allow for an estimated increase in living expenses of 2% each year.

More information about how these figures have been calculated is available at [www.ox.ac.uk/admissions/graduate/fees-and-funding/living-costs](http://www.ox.ac.uk/admissions/graduate/fees-and-funding/living-costs).

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