



**Department Application  
Bronze Award**

**Department of  
Computing and  
Communications**

The Open University



# Athena SWAN Bronze Department Award Application

## The Open University Department of Computing and Communications



Jennie Lee Building at The Open University, home of the Department of Computing and Communications

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## Guidance to Athena SWAN Assessment Panels for Open University submissions

*This is a standard Guidance document that has been agreed by Athena SWAN to accompany all OU submissions. Please note that it is not included in the word count.*

The Open University (OU) is unlike any other Higher Education Institution in the UK. Both the student body and staffing structure are very different from that of a conventional university, which means that some of the information presented in its Athena SWAN submissions may be unfamiliar to Assessment Panels. This guidance aims to give additional background information to assist panels in completing their assessment of Open University submissions.

### 1. Students

The OU is the largest UK University, with over 174,000 undergraduate (UG) and taught postgraduate (PG) students, all of whom study part-time and at a distance. There are also around 1000 full-time and part-time postgraduate research students. Most Open University students are in employment and are mature students (only 5% of students are under 20). They are based in all parts of the UK, and there are also 10,000 non-UK based students. Around 20,000 of our UG and PG students have declared disabilities. The University operates an open access policy, meaning it accepts all applicants who apply to study at undergraduate level, without any academic prerequisites.

#### *Study mode*

Students are taught via the OU's unique model of distance learning known as 'supported open learning'. Course materials are delivered via a number of different media, such as on-line and printed material. Students are allocated to a personal tutor (Associate Lecturer) who provides academic expertise, guidance and feedback individually and as part of a tutor group, via on-line conferencing and face to face at tutorials and residential schools. Full time funded PhD students are based at the Milton Keynes campus while part time students (who are usually self-funded) are required to attend occasionally but are usually supervised remotely.

#### *Modules and Qualifications*

There has always been considerable flexibility in the patterns and pathways of study, and as they are studying part-time, most students usually take at least 6 years to complete their degree. Historically, OU students have registered on individual modules which they have used to build credits towards a qualification, which for many students has been the interdisciplinary BA (Open).

Since 2012, the OU curriculum has begun to move to being qualification-based, rather than module-based, with students registering for a named qualification from the outset. However, as this is a relatively recent development, there are still a large number of

students who began with and are still following the module-based route. Moreover, individual modules may be common to a number of different qualifications, thus individual departments often contribute towards degree attainment outside of the named qualifications reported in the data.

For these two reasons, panels should note that OU departmental submissions will consider and reflect on student data at a module level, as well as qualification outcomes.

## **2. Staff**

The majority of academic teaching and research staff are based at the main campus in Milton Keynes and are referred to in OU submissions as Central Academics. These Central Academics develop teaching materials as part of multi-disciplinary module teams and manage the delivery and assessment of modules. They also form the OU's research base, together with Research Associates and Fellows.

### *Regional Academics*

In addition to academic and research staff based in Milton Keynes, there are almost 200 'Regional Academics' (also known as Staff Tutors) who are based in 12 OU regional and national centres across the UK, whose roles include teaching, administration and research. Regional Academics are employed on the same salary scale as Central Academics; however they have different terms and conditions in their contracts. In particular they are allowed less research time than central academics, and have a higher administrative load, because part of their role is to appoint and manage Associate Lecturers. These different responsibilities are allowed for within promotions criteria.

### *Associate Lecturers*

Approximately 6000 Associate Lecturers (ALs) are employed on short term contracts to carry out tutoring roles and support student learning and assessment for specified modules. Many of them have substantive posts with other employers. Their contracts with the OU do not include production of course materials or research. They are appointed and managed by the Regional Academics at Faculty level, and are members of curriculum based Student Support Teams (i.e. not departments) along with student advisors, administrators and other non-academic staff. Since their contracts and career development remain beyond the responsibility of departments, there is limited scope for including this staff group within departmental Athena SWAN submissions. However, as ALs are the main point of contact with the university for students, departmental submissions will provide basic data including a gender analysis of ALs who are employed to work on relevant modules.

## **3. Flexible working**

The nature of the OU's teaching and learning model provides the flexibility for students to study where and when they choose, to fit in with jobs, families and other commitments. This also means that academics and researchers have always had a high level of flexibility

about their working arrangements and this approach continues to be a unique part of the working culture and of how the OU operates. Therefore panels should be aware that this is the reason there have been very few formal applications for flexible working among academic and research staff. For colleagues working in regional/national centres across the UK, remote participation at meetings is also facilitated and encouraged and there are excellent audio and video conference facilities, so it is often not necessary to be physically at the Milton Keynes campus. Meetings are rarely held before 10am or after 4pm, to enable colleagues from regions to travel if necessary. Regional academic colleagues make particularly extensive use of flexible working because much of their work with the ALs necessarily takes place outside conventional office hours.

<b>Name of institution</b>	The Open University	
<b>Department</b>	Computing and Communications	
<b>Focus of department</b>	<b>STEMM</b>	
<b>Date of application</b>	April 2016	
<b>Award Level</b>	<b>Bronze</b>	
<b>Institution Athena SWAN award</b>	<b>Date: 2013</b>	<b>Level: Bronze</b>
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<b>Departmental website</b>	<a href="http://www9.open.ac.uk/mct-cc/">http://www9.open.ac.uk/mct-cc/</a>	

**Faculty of Mathematics,  
Computing and Technology**

Computing and Communications

The Open University

Walton Hall

Milton Keynes

United Kingdom



26<sup>th</sup> April 2016

Dear Athena SWAN panel members,

I am delighted to have the opportunity to support this application from the Department of Computing and Communications at The Open University (OU) for an Athena SWAN Bronze award. The OU has always taken very seriously its responsibility to provide equality of opportunity in all aspects of its work, and our engagement with Athena SWAN has enabled us to reflect upon our practices to ensure we demonstrate this commitment.

I have been Head of the Department for 18 months and, as a member of the Athena SWAN SAT, I have been impressed by the commitment of fellow team members and the depth of the discussions. The group has taken the opportunity to engage the whole department in discussions around the issues in order to develop a collective understanding of the type of department we want to be. This understanding has resulted in a shared vision that is consonant with that of Athena SWAN, and increasingly underpins our processes and procedures.

I am proud to lead a department with a supportive and gender inclusive culture that allows women academics to excel. This is helped by the flexible way in which we work, allowing staff to work at home as well as in the office, making it easier for those with caring responsibilities. This is complemented by the use of video-conferencing to ensure all colleagues are fully included. For example, over recent years the proportion of female professors has increased from 25% to 44%, comparing favourably with the sector average of 13%. One of these female professors is Dean of Faculty, and another is Associate Dean for Research.

Completing the work that has resulted in this report has given us a much deeper understanding of our strengths and weaknesses. We are approaching the challenges in a variety of different ways, for example, the Department has an Industrial Advisory Board (IAB) who have helped us initiate changes to the gender balance of images in our prospectus. We have adjusted the Department's website to ensure equal representation of

men and women; and over the next few weeks we will be agreeing workload plans, looking particularly closely at the career development for academics based in the OU regions and nations, many of whom are women.

However, as acknowledged by the action plan at the end of this document, there is still a lot to do. In order to play our part in creating a more inclusive and gender balanced IT sector, a particular priority will be ensuring our large undergraduate provision has a good representation of women students.

I recognise the importance of ensuring that all staff can realise their full potential, so Athena SWAN is a high priority for the Department and is being embedded in all aspects of our work. In order to facilitate this, I will ensure that individuals have time in their workload plans to deliver the objectives in the action plan and, where appropriate, will endeavour to provide the necessary financing.

Yours faithfully

A handwritten signature in black ink that reads "Mark Woodroffe". The signature is written in a cursive, slightly slanted style.

Dr Mark Woodroffe  
Head of Department  
Computing and Communications

(491 words)

## 2. DESCRIPTION OF THE DEPARTMENT

The Computing and Communications Department (C&C) is part of the Faculty of Mathematics, Computing and Technology (MCT).

The department comprises 66 academic and research staff (30% women) and four support staff (all women) based at our Milton Keynes main campus, as well as 18 regional academic staff (61% women) based in 12 regional and national centres around the UK (see Fig 1a and b). The majority are full time apart from 10 women and 4 men who work part time. Overall women comprise 37% of the academic and research staff in the department, considerably higher than the sector benchmark of 22.2% for academic staff in IT, systems science and software engineering. <sup>1</sup>

The regional academics (who are either at lecturer or senior lecturer grades) have different terms and conditions to central academics. There are also 461 part-time teaching-only Associate Lecturers who provide tuition and assessment across our curriculum, 129 (28%) women and 332 (72%) men, although they are not employed directly by the department. Please note that we have provided additional information on the regional staff roles and the employment of Associate Lecturers in the *OU Guidance document*.

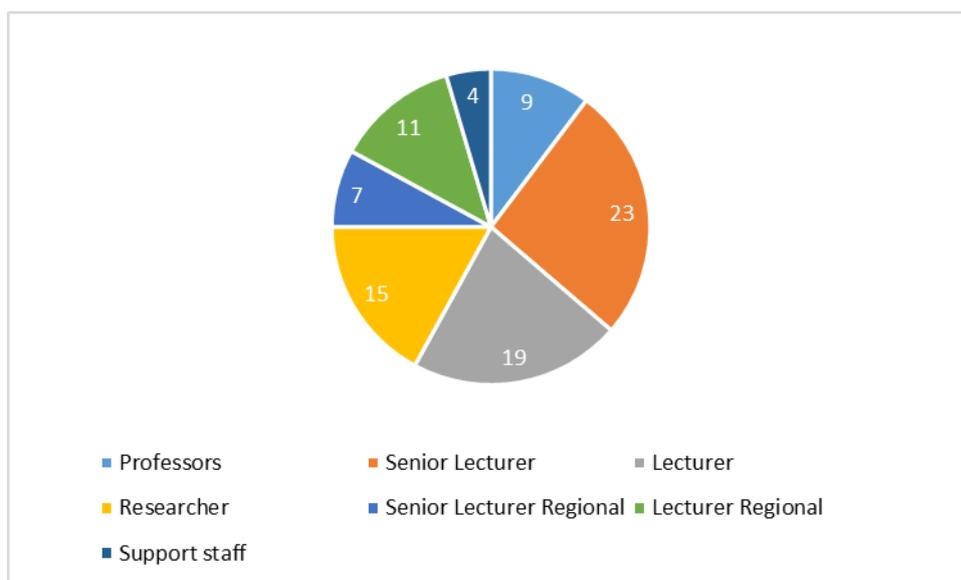


Figure 1a. Staff composition by role in Department of Computing and Communications

<sup>1</sup> <http://www.ecu.ac.uk/wp-content/uploads/2015/11/Equality-in-HE-statistical-report-2015-part-1-staff.pdf> - p240

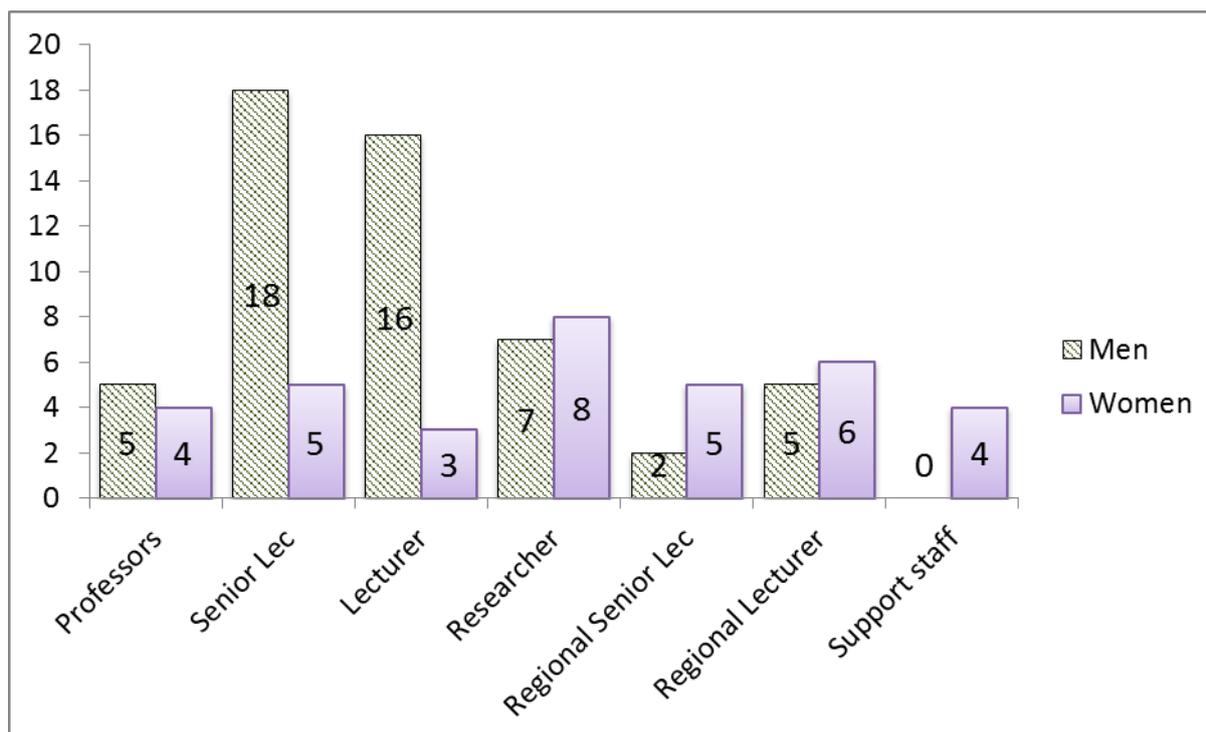


Figure 1b. Staff composition by gender and role in Department of Computing and Communications

Our undergraduate programme, Computing and IT, is the largest in the University with over 10,000 students enrolled on our modules, of whom just under 20% are women, a higher percentage than the sector average of 16.0% for part-time computer science students<sup>2</sup>. All of our students are part-time and typically take around six years to complete a degree, completing 60 credits a year, although some choose to study at the equivalent of full-time pace. As well as teaching students who are registered for our own degree programmes, our modules are also taken by large numbers of Open University students who have registered for an Open Degree which allows them to select modules from any discipline throughout their studies.

2014/15 student enrolments	Female	%	Male	%
UG Computing & IT	1949	19.3	8168	80.7
Sector Benchmark		16.0		84.0

Table 1. 2014/15 undergraduate students by gender

We have 350 students on our postgraduate (PG) taught courses, of whom 17% are women (lower than the part-time sector average of 22.9%<sup>3</sup>) and 40 postgraduate research students (both full- and part-time), of whom 11 (27.5%) are women.

<sup>2</sup> <http://www.ecu.ac.uk/equality-charters/athena-swan/athena-swan-resources/data/>

<sup>3</sup> <http://www.ecu.ac.uk/equality-charters/athena-swan/athena-swan-resources/data/>

The department hosts the Computing Research Centre with a portfolio of research in the areas of software engineering, human-computer interaction, intelligent systems, informatics education and computational linguistics. Our commitment to enhancing our teaching and learning is underpinned by scholarship and research in technology enhanced learning (TEL), and in social aspects of ICTs as part of our Social and Educational Aspects of Technology (SEAT) research group.

There are four support staff in the department – one office administrator and three departmental secretaries, all female. All other support and administrative functions are provided via the MCT Faculty Deanery.

(468 words)

### 3. THE SELF-ASSESSMENT PROCESS

#### (i) a description of the self-assessment team

The SAT has 13 members, 8 female and 5 male. It includes a postgraduate student and postdoc researcher, and academics at all levels with a wide range of career paths and work - life balance experiences, plus a member of our support staff. Staff based in two of our regional offices are also represented.

<b>Dr Amel Bennaceur</b>	<b>Research Associate</b> (fixed term contract)	Member of ACM-W (an international network of women in computing), MK Women and Work network, and a STEM Ambassador.
<b>Dr David Bowers</b>	<b>Senior Lecturer and Director of the IT and Computing Programme</b>	Chartered Engineer and active member of the BCS, as well as responsible for the department's Industry Advisory Board.
<b>Dr Helen Donelan</b>	<b>Lecturer</b>	Joined the department as a Research Fellow. After several years of working part-time and two maternity leaves, now works full-time.
<b>Dr Christopher Douce</b>	<b>Regional Lecturer</b> based at the OU's London regional centre	Supports and manages Associate Lecturers and is a tutor on an OU postgraduate module about accessibility in higher education.
<b>Ms Emily Giles</b>	<b>PhD student</b>	Her area of research focuses on how eTextiles (electronic textiles) as sensory tools for blind or visually impaired people.
<b>Dr Clem Herman</b>	<b>Senior Lecturer and Chair of Self-Assessment Team (SAT)</b>	She has led numerous initiatives supporting women's STEM careers at OU and externally. Chair of OU's STEM Gender Equality Group.
<b>Dr Karen Kear</b>	<b>Senior Lecturer and Deputy Head of Department</b>	Has worked at the OU over 20 years, as part-time tutor, software developer and academic. Member of Faculty's promotion committee.

<b>Dr Robin Laney</b>	<b>Senior Lecturer and Director of Research</b>	He has previously been Postgraduate Tutor leading on student support for research students.
<b>Professor Shailey Minocha</b>	<b>Professor</b>	Joined the OU as lecturer in HCI in 1999, she has moved through positions of Senior Lecturer, Reader, becoming Professor in 2014.
<b>Dr Magnus Ramage</b>	<b>Lecturer</b>	Has authored teaching material and chaired several module teams. With two young children, he has benefitted from OU's flexible working culture.
<b>Dr Elaine Thomas</b>	<b>Regional Senior Lecturer</b> , based at the OU's office in Belfast	Responsible for supporting tutors and students in Northern Ireland and the Republic of Ireland; chair for Level 1 core module.
<b>Mrs Sarah Wood</b>	<b>Departmental Office Manager</b>	Responsible for all departmental administrative functions and providing administrative support for SAT team.
<b>Dr Mark Woodroffe</b>	<b>Head of Department</b>	Manages all academic staff in the department. Was previously a regional academic, managing Computing tutors in the East of England.

(ii) [an account of the self-assessment process](#)

The Computing and Communications Department was formed in October 2013, merging two departments as part of a faculty re-structure, and our original SAT began meeting in February 2014. Following our unsuccessful application for a Bronze award in November 2014, we reconstituted the team with new membership in January 2015 and have been meeting on a monthly basis. Time spent on the SAT team and Athena SWAN work is an eligible category in our workload planning system and is seen as a valuable contribution to the department.

The SAT has involved other department colleagues via presentations and consultations at two away days for the whole department (July 2015 and December 2015). We have also conducted an online survey of the whole department in 2015 to which 35 (14 women and 21 men) out of 84 staff responded (a 42% response rate). Over 75% agreed that the University and the Department take equality and inclusivity seriously. More details are reported in Section 5.4, Organisation and Culture. In preparing this submission, we consulted with our women professors to comment on what aspects of the department culture they felt were supportive for women's career development. Three key factors emerged:

- The interdisciplinary nature of our teaching and research, much of it focused on human and user aspects of computing.
- The department welcomes people with unconventional career routes and 'hybrid' disciplinary backgrounds.

- A supportive and inclusive culture with flexibility to accommodate life events (for both men and women) was considered important.

Additional meetings have been held with the faculty’s Associate Dean for Research and the Programme Director for Taught Postgraduate Studies to interpret and discuss the implications of our data. We have also consulted external experts from industry and from professional bodies (the British Computing Society and eSkills) who are members of our departmental Industrial Advisory Board. They have contributed ideas and suggestions for our action plan, in particular to increase the representation of women in our marketing and publicity campaigns. We also consulted an external academic reviewer from another university with Athena SWAN experience during the writing of this submission.

The SAT chair has met regularly with chairs of other STEM department SATs as well as the university’s Equality and Diversity Team in the preparation of this submission, enabling discussion of issues and sharing of good practice to inform our action plan.

Student data for this submission was compared with HESA national benchmarking data for *Computer Science* students while staff data was compared with other ‘*IT and systems sciences, computer software engineering*’ departments.

**(iii) plans for the future of the self-assessment team**

The team will continue to meet every two months during the first year and then on a three monthly basis to monitor the implementation of the action plan. All action points in the plan have a lead person responsible to take these forward. The SAT will ensure that progress on each of these is regularly reported on to the Department Management Team every three months, and to the whole department at our annual summer away day. Regular representation at Department Management Team meetings will ensure that the Athena SWAN principles will be embedded into decision making and future strategies. The SAT will notify news and updates via the monthly departmental newsletter and on the Department’s website.

A member of the SAT represents the Department on the University’s STEM Gender Equality Group, which in turn reports to senior management, thus ensuring the department’s Athena SWAN work connects to wider university strategies on gender equality and the Department is informed of news and developments. The OU is currently undergoing a major restructure and the Computing and Communications Department will become one of six new Schools within a combined STEM Faculty from August 2016. This will present opportunities to ensure gender equality initiatives can be further strategically embedded and good practice shared between STEM departments going forward.

<b>Actions 1.1, 1.3 and 1.4</b>	Establish an annual cycle of SAT meetings and reporting schedule (including reports on student and staff gender data) to Departmental Management Team and whole department.
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(709 words)

## 4. A PICTURE OF THE DEPARTMENT

### 4.1. Student data

#### (i) Numbers of men and women on access or foundation courses

Start date	Female	Male	Total	% Female
2013 (Oct)	185	384	569	33%
2014 (Feb)	136	368	504	27%
2014 (Oct)	182	286	468	39%
2015 (Feb)	165	280	445	37%
2015 (Oct)	240	364	604	40%

Table 2a. Enrolments on Access Module Y033 Science Technology and Maths by gender

The 30 credit Access module Y033 *Science, Technology and Maths* runs twice a year and is a generic module covering several STEM subjects so students go on to study a range of STEM degrees. As shown in Table 2a, over three years the percentages of women in the October module increased from 33% to 40%, in the February module from 27% to 37%.

#### (ii) Numbers of undergraduate students by gender

In this section we present data for undergraduate students who are registered on qualifications and modules within the Computing and IT Programme.

Until 2012, OU students could enrol to study on a module-by-module basis, and were not obliged to register for a specific qualification. As a result of the changes to university funding, part-time students became eligible for student loans, but only if they registered for named qualifications. This led to a complete redevelopment of the OU curriculum with a requirement for new students from 2012/13 onwards to register for named qualifications. Thus, we start by looking at data on students registered on these newest qualifications. We are however still in a period of transition between the two systems, which means that many of our students at second or third level will have originally registered under the old modular system. Therefore, there is also data presented on individual modules later in this section. It is too soon to understand whether there are any gender disparities resulting from this new qualification framework. However, we plan to monitor this regularly to inform planning and strategy.

<b>Action 1.2</b>	Put in place a system for regularly collecting and reviewing gender data on the recruitment, progression and attainment of undergraduate and postgraduate taught students.
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The Computing and IT Programme currently offers three generic honours degrees as well as a number of diplomas and certificates, as detailed in Table 2b.

<b>BSc (Hons) degrees</b>	
Q62	Single honours degree in Computing and IT
Q67	Joint honours degree in Computing and IT and a second subject (including business, mathematics, applied psychology, design and statistics)
Q68	Top-up degree in Computing and IT Practice – for students who have already completed a Foundation degree (at the OU or elsewhere) or an equivalent qualification, e.g. HND
<b>Certificates of Higher Education</b>	
T12	Certificate in Computing and IT
T13	Certificate in Computing and IT and a second subject
<b>Diplomas of Higher Education</b>	
W13	Diploma in Combined Professional Studies
W15	Diploma in Computing and IT Practice
W36	Diploma in Computing and IT
W42	Diploma in Computing and IT and a second subject
<b>Foundation degrees</b>	
X13	Foundation degree in combined Professional Studies
X15	Foundation degree in Computing and IT

Table 2b. List of qualifications offered by the department's Computing and IT Programme

The total numbers of new students registering each year on these undergraduate degrees are illustrated in Table 2c.

	2013/14		2014/15		2015/16	
	Total	Female (%)	Total	Female (%)	Total	Female (%)
<b>Q62 BSc (Hons) Computing &amp; IT</b>	1985	233 (12%)	1852	252 (14%)	1864	252 (14%)
<b>Q67 BSc (Hons) Computing &amp; IT + other</b>	871	216 (25%)	567	162 (29%)	531	134 (25%)
<b>Q68 Top up BSc (Hons) Computing &amp; IT Practice</b>	32	6 (19%)	21	2 (10%)	20	2 (10%)
<b>All certificates (T12 + T13)</b>	104	16 (15%)	159	31 (19%)	200	54 (27%)
<b>All diplomas (W13+W15+W36+W42)</b>	140	25 (18%)	169	32 (19%)	171	41 (24%)
<b>All foundations degrees (X13+X15)</b>	119	16 (13%)	142	21 (15%)	108	30 (28%)

Table 2c. Enrolments on undergraduate qualifications in the Computing and IT Programme, including proportion of women students

We now turn to look in more detail at the two highest population degree programmes: Q62 and Q67.

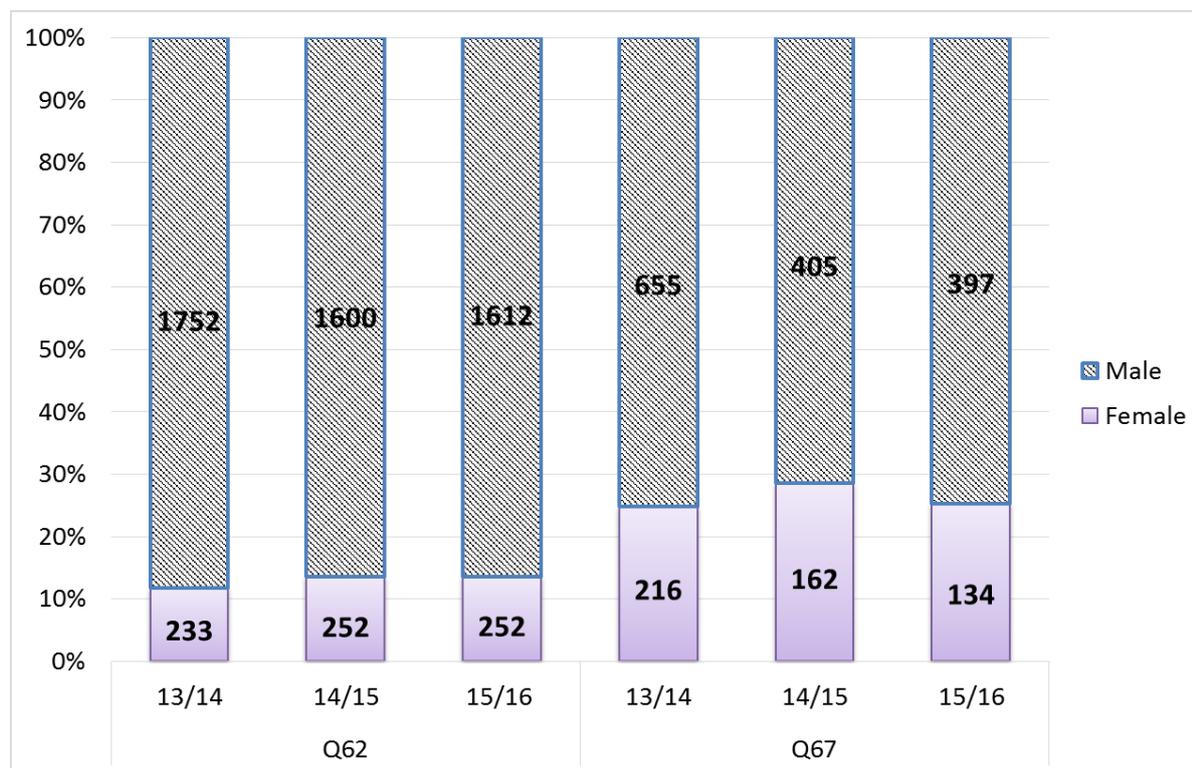


Figure 2. Enrolments by gender for named degrees Q62 (BSc Computing and IT) and Q67 (BSc Joint Honours Computing and a second subject)

Table 2b and Figure 2 show that the number and proportion of women enrolling on the single honours degree Q62 has stabilised and this year women made up 14% of overall student enrolments. The figures show a slight improvement over the past two years but they are still lower than the sector average of 17.1% for computer science<sup>4</sup>. On the joint honours degree Q67, the average percentage of women enrolling has consistently been higher, currently at 25%, despite an overall drop in total enrolment. In our action plan, we will examine the degree choices of women enrolling for our qualifications and modules to investigate ways to increase women’s engagement with Q62 (Action 2.1).

Figure 3 shows the proportion of women registering on the top-up degree (Q68) has fallen, but numbers of men have also decreased. On all the diplomas, certificates and foundation degrees, the proportion of women enrolling has increased year by year over the past three years.

<sup>4</sup> <http://www.ecu.ac.uk/equality-charters/athena-swan/athena-swan-resources/data/>

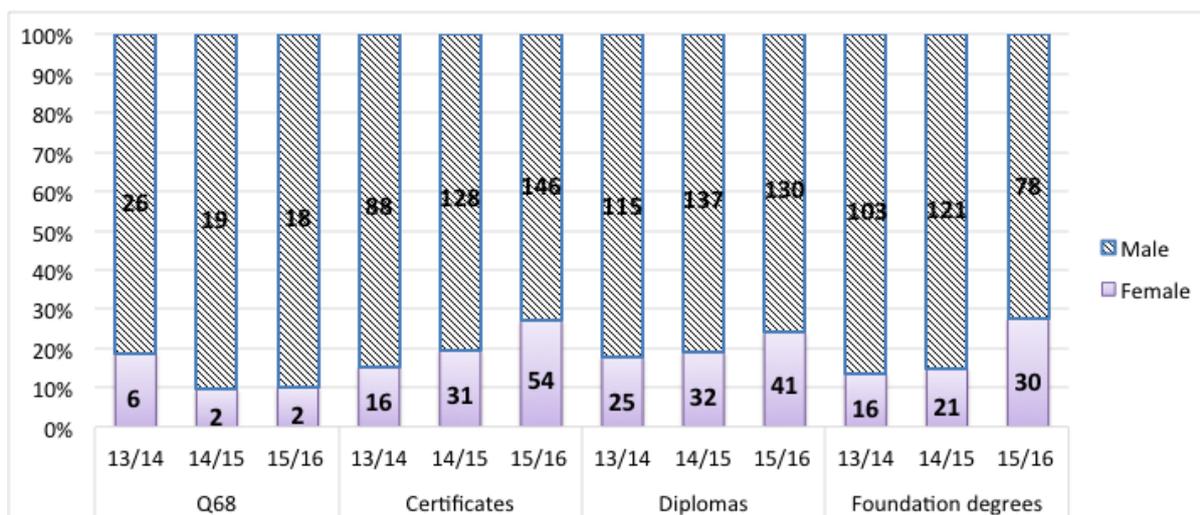


Figure 3. Enrolments by gender for top-up degree Q68, Certificates, Diplomas and Foundation degrees

### Level 1

A key introductory module for all Computing and IT students is TU100 *My Digital Life*. The majority of Q62 and Q67 Level 1 students study this module in their first year.

Year	Female	Male	Total	% Female
2013/14	694	3307	4001	17%
2014/15	753	3123	3876	19%
2015/16	685	2929	3614	19%

Table 3. Number of students on entry level TU100 *My Digital Life* by gender

This compares well with the sector average for female first year computer science students, which is 17.9%<sup>5</sup>. However, these percentages are not reflected in the proportion of women on our single honours degree Q62 as shown in Table 2b and Figure 2. This may be due to a larger proportion of women TU100 students opting to register for a generic Open University degree (Open Degree) or other qualifications. In order to understand whether we can increase enrolment of women onto Q62, we will carry out a project to examine degree choice and motivation of Level 1 female students. Advice and guidance to students about their degree choice is carried out by the Student Support Team (who are not members of our department) so we will work with them to raise awareness of potential gender stereotyping and unconscious bias.

<b>Action 2.1</b>	Carry out investigation into motivation and degree choice of women at Level 1. Carry out a survey of students, together with focus group and interviews.
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<sup>5</sup> <http://www.ecu.ac.uk/wp-content/uploads/2015/11/Equality-in-HE-statistical-report-2015-part-2-students.pdf> - p166).

<b>Action 2.2</b>	Raise awareness of gender stereotyping and unconscious bias with Student Support Team, as well as marketing staff and regional staff who advise potential students at enrolment. Provide documentation, information, advice and training to these staff members.
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The average proportion of students completing TU100 from 2012/13 to 2014/15 (data is yet not available for the 2015/16 presentations) was 63.5% for female students and 60.8% for male students.

### Progression

Tables 4a and 4b below show the proportion of new students registering in year one (i.e. their first year of study) on Q62 and Q67 who have progressed to year two (i.e. their second consecutive year of study). Only two years are shown as these qualifications were introduced in 2012/13 and data are not yet available for 2014/15. On Q62 the retention rate of women is encouraging, indicating that once on the degree programme women are likely to continue. For Q67 the proportion of women progressing to year 2 has dropped slightly in the most recent year so we will continue to monitor this to investigate if this continues.

Q62	% of students progressing to Year 2		
Year of entry	Overall	Female	Male
2012/13	58.0%	60.0%	57.7%
2013/14	61.3%	69.2%	60.3%

*Table 4a. Student progression from year 1 to year 2 on Q62*

Q67	% of students progressing to Year 2		
Year of entry	Overall	Female	Male
2012/13	51.4%	59.1%	49.0%
2013/14	56.2%	55.7%	56.4%

*Table 4b. Student progression from year 1 to year 2 on Q67*

### Level 2

Students can choose from a selection of modules for study at Level 2 and 3. In the next section, we will look at choices at Level 2 as these choices influence what students can study later at Level 3.

At Level 2, students have a choice of modules and the SAT spent time considering the data for these modules in more depth as there were significant variations in gender balance on individual modules (see Table 6). The SAT identified that the two programming modules M250 and M256 were among the modules with lowest numbers of women. This is a concern as our Industry Advisory Board have identified that programming and software development are among the most highly demanded skills in the IT industry. Thus, we plan to

explore ways to increase the proportion of women learning programming, in order to enhance their employability.

Level 2 module	2013/14	2014/15	2015/16
T227 <i>Change Strategy and Projects at Work</i>	37%	27%	25%
T215 <i>Communication and Information Technologies</i>	25%	23%	26%
T216 <i>Cisco Networking</i>	10%	11%	8%
M250 <i>Object Orientated Java Programming</i>	17%	17%	18%
M256 <i>Software Development with Java</i>	14%	12%	15%
M258 <i>IT Project and Service Management</i>	25%	19%	23%
M269 <i>Algorithms, data structures and computability</i>	19%	18%	17%
TT284 <i>Web Technologies</i>	23%	20%	18%

Table 6. Proportion of female students on Level 2 modules

All students registered on Q62 and Q67, no matter what their selections at Levels 2 and 3 is, conclude their studies with *The computing and IT project* (TM470). This is an individual project on a topic of their choice, and gives a good indication of the proportion of female students at the end of the degree. Table 5 shows the number and proportion of female students registered on this module over the past four years.

Year	Female students	Total students	% Female
2013	80	450	18%
2014	72	501	14%
2015	105	577	18%
2016	115	684	17%

Table 5. Number and proportion of female students registered on TM470 *The computing and IT project*

The average proportion of female students registering on TM470 from 2013-2016 is 16.8%, which is slightly lower than the average proportion registered on our introductory Level 1 module TU100 (18.4%).

<b>Action 2.3</b>	Monitor the progression and pathway choices of students by gender, through the three levels of study.
<b>Action 2.4</b>	Explore ways to increase the uptake by women of modules that focus on computer programming.

Course applications, offers, and acceptance rates

As The Open University has an Open Access policy, the section on applications, offers and acceptance rates for undergraduate students is not relevant.

Degree attainment by gender

Data on degree attainment for Q62 and Q67 degrees are not yet available as students only registered on these for the first time in 2012/13 and the majority of our students take longer than 3 years to complete a degree due to their part-time status. The data presented below in Figures 4, 5 and 6 show degree classifications obtained by students who graduated from the Computing and IT Programme.

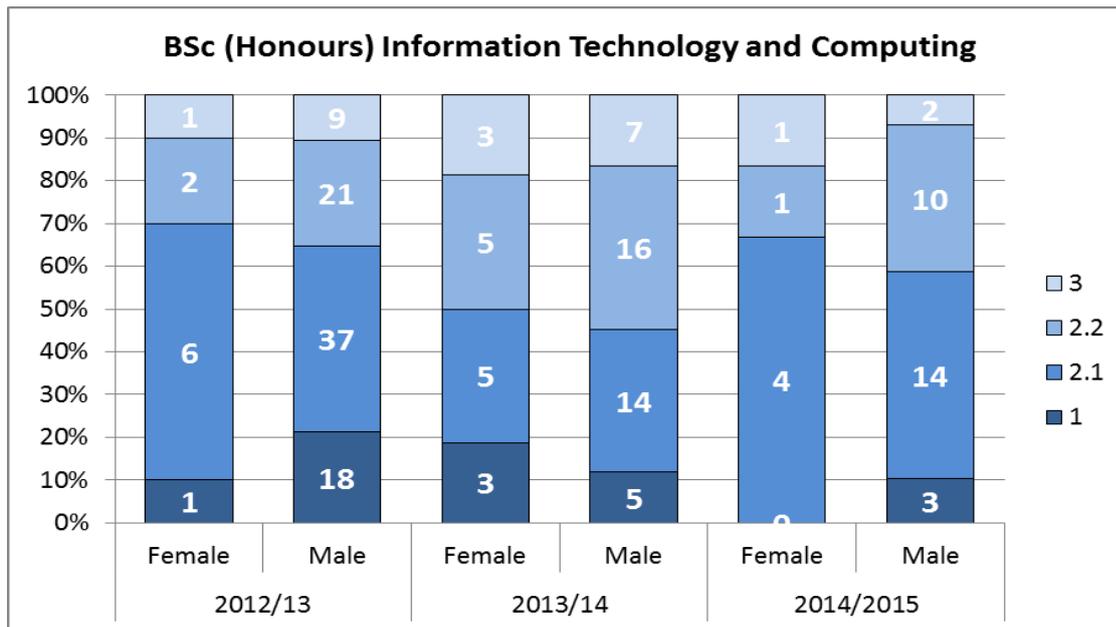


Figure 4. Degree classification for BSc IT and Computing

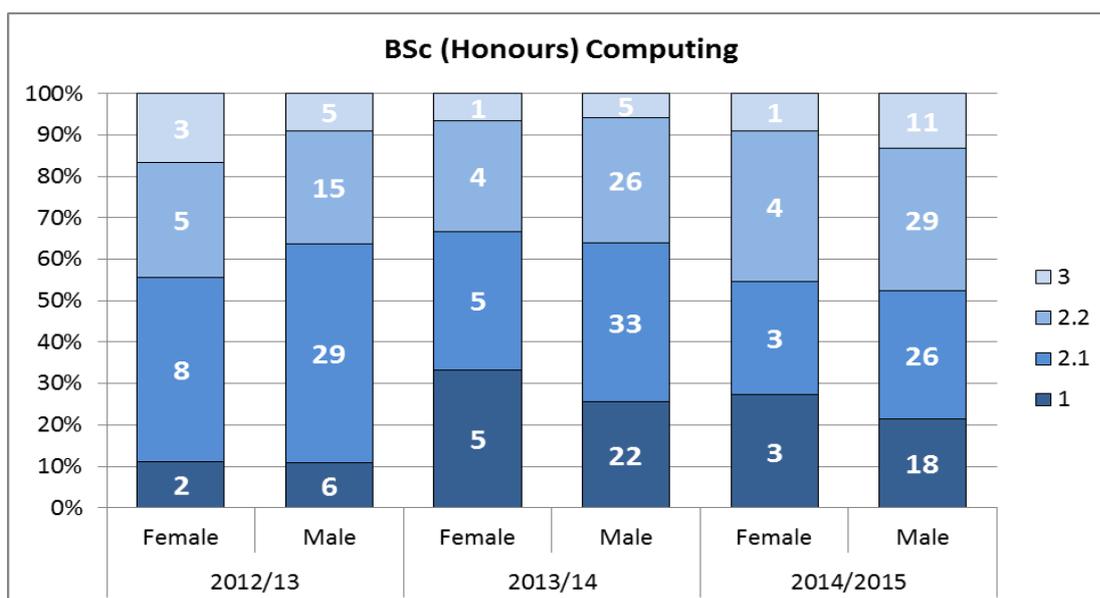


Figure 5. Degree classification for BSc Computing

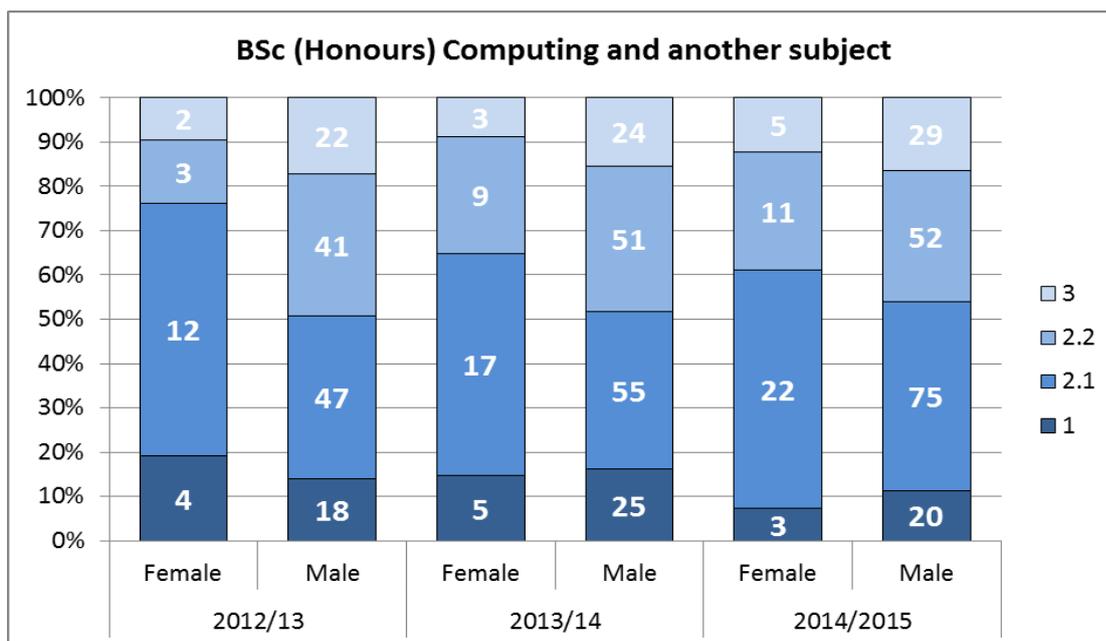


Figure 6. Degree classification for BSc (Hons) Computing and a second subject (\*includes Systems Practice, Business, Statistics, Design, Psychological Studies and Mathematical Sciences)

	2013		2014		2015	
	F	M	F	M	F	M
<b>BSc IT and Comp</b>	70	66	50	46	66	58
<b>BSc Computing</b>	56	64	66	64	54	52
<b>BSc Computing and Second subject</b>	76	50	64	52	61	54

Table 7. Percentage of female and male students achieving 2.1/1 degree classification

Table 7 shows the percentage of students gaining 2.1s or above by gender. Across all degree programmes, female students have typically achieved higher proportions of 2.1 or 1sts. We plan to monitor regularly the attainment of students on our new degree qualifications to ensure that women carry on with these excellent achievements.

### (iii) Numbers of men and women on postgraduate taught degrees

All taught PG students are part-time. Unlike undergraduate students, our PG part-time students are not required to register for a qualification, so we present data in this section by module. While students are required to have a relevant bachelor's degree or equivalent industrial experience, we do not have an application and selection process, so there is no data presented on course application offers and acceptance rates. However, we are aware that our entry requirement for a relevant degree might potentially prevent some women (including women returners) from moving into computing from other subject areas, so we will investigate the possibility of developing a conversion route for these students.

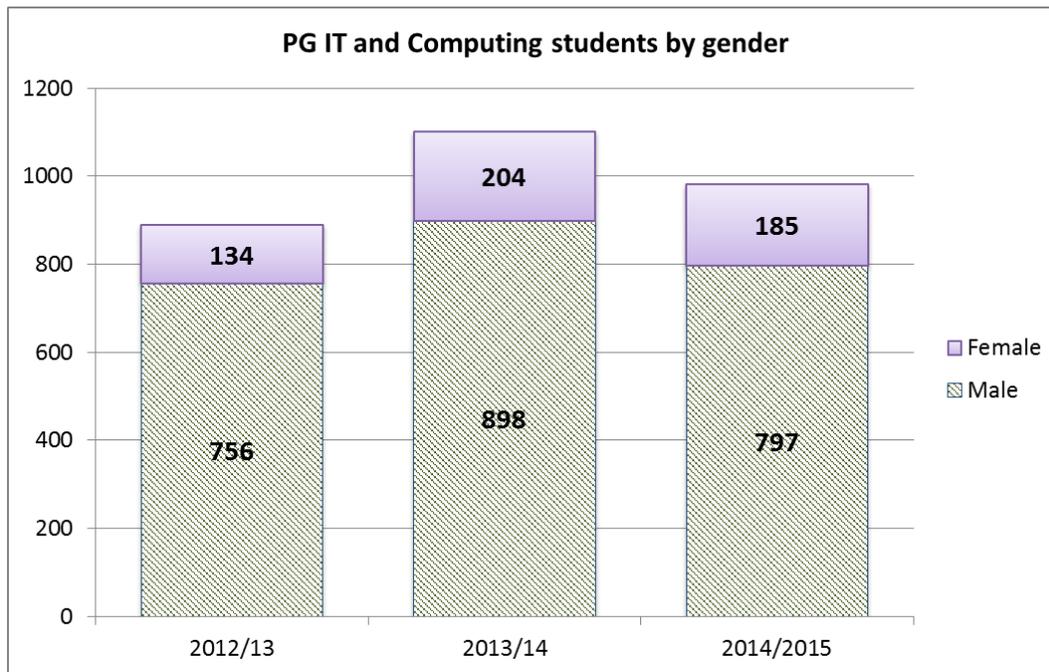


Figure 7. Taught PG IT and Computing modules completions by gender

Our percentage of women students, averaging 19% over the 3 years, is lower than the sector benchmark for part-time taught postgraduate Computer Science (22.9%<sup>6</sup>); however, there is considerable variation in the proportion of women completing different modules. The M865 *Project Management* module, for example, had an average of 26% women over the three-year period, whereas the T827 *Cisco Advanced Networking* course averaged less than 5% women (which is similar to sector wide trends). We will consider ways to increase the uptake of all postgraduate modules by women by proactively marketing postgraduate study to our undergraduate students on completion. We will also consider how we can provide additional support and networking opportunities on modules where there are very few women.

<b>Action 2.5</b>	Identify ways to provide networking opportunities on courses where there are very few women.
<b>Action 2.6</b>	Consider development of 'conversion' postgraduate module for students with non-computing backgrounds including women returners.
<b>Action 2.7</b>	Prepare alumni case studies of successful women PG students to add to the departmental website.

<sup>6</sup> <http://www.ecu.ac.uk/equality-charters/athena-swan/athena-swan-resources/data/>

(iv) Numbers of men and women on postgraduate research degrees

	2013			2014			2015		
	Women	Men	% W	Women	Men	% W	Women	Men	% W
<b>Full-time</b>	8	15	35%	7	12	37%	7	11	39%
<b>Part-time</b>	5	30	14%	5	22	19%	4	18	18%

Table 8. Numbers of men and women on PG research degrees (full- and part-time) 2013-15

Full-time	2013			2014			2015		
	Women	Men	% W	Women	Men	% W	Women	Men	%W
<b>Applications</b>	3	18	14%	5	13	28%	3	10	23%
<b>Offers</b>	1	2	33%	0	2	0%	2	3	40%
<b>% Offer/Apps</b>	33%	11%		0	15%		66%	30%	
Part-time	2013			2014			2015		
	Women	Men	% W	Women	Men	% W	Women	Men	%W
<b>Applications</b>	1	4	20%	2	6	25%	0	4	0%
<b>Offers</b>	1	3	25%	1	4	20%	0	2	0%
<b>% Offer/Apps</b>	100%	75%		50%	67%		0%	50%	

Table 9. Applications and offers for postgraduate research degrees 2013-15

Compared to national benchmarking data, we do well for full-time PG research students, averaging 38% women over the three year period compared to the sector average of 24.7%<sup>7</sup>. However, among part-time students there are far fewer women. Part-time students are usually self-funded, so this may be one reason for this disparity. We plan to investigate the reasons for this and possible solutions in our action plan. The ratio of applications to offers for postgraduate research degrees is shown in Table 9. We do not have separate data for acceptances, so the number of 'offers' represents offers that were accepted. The percentages show large variations but this is due to the small numbers of students represented. No full-time offers were made to women in 2014 although in other years women had a higher success rate in having their applications accepted.

In compiling this data, we found that our departmental records on PhD applications, offers and acceptances were not easily available. Therefore, we have included setting up and maintaining robust and transparent monitoring in our action plan (see Action 1.3).

<b>Action 2.8</b>	Investigate reasons for low recruitment of part-time female postgraduate research students. Survey and interview current part-time students (both male and female) to explore their experiences.
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<sup>7</sup> <http://www.ecu.ac.uk/equality-charters/athena-swan/athena-swan-resources/data/>

**Action 2.9**

Identify ways to increase support and networks for part-time research students.

(v) Progression pipeline between undergraduate and postgraduate student levels

Students registering for postgraduate modules are able to indicate previous qualifications including OU study in their applications, but we have not to date routinely collected data on progression of students from undergraduate into postgraduate study. We recognise that there may well be opportunities to market our postgraduate courses to existing students. This is something we will investigate going forward.

#### 4.2. Academic and research staff data

(i) Academic staff by grade, contract function and gender

The composition of academic and research staff by gender over the past three years is illustrated below in Figures 8-10 (representing headcounts rather than full-time equivalent staff, FTEs). The data for lecturers and senior lecturers are separated out into central and regional staff to reflect the fact that these two staff groups are employed on different terms and conditions. (See OU Guidance document for more information). All central lecturers, senior lecturers and professors undertake teaching and research, while researchers shown are all on research-only contracts. There are 461 part-time teaching-only Associate Lecturers who provide tuition and assessment across our curriculum: 129 (28%) women and 332 (72%) men. However, they are not employed directly by our department so we are not able to analyse this data further. The data shown in Figures 8-10 does not differentiate between full- and part-time staff, nor does it illustrate intersection of gender with ethnicity or other protected characteristics. As we go forward with regular data reporting, we plan to collate and analyse data to reflect these wider priorities of the new Athena SWAN principles.

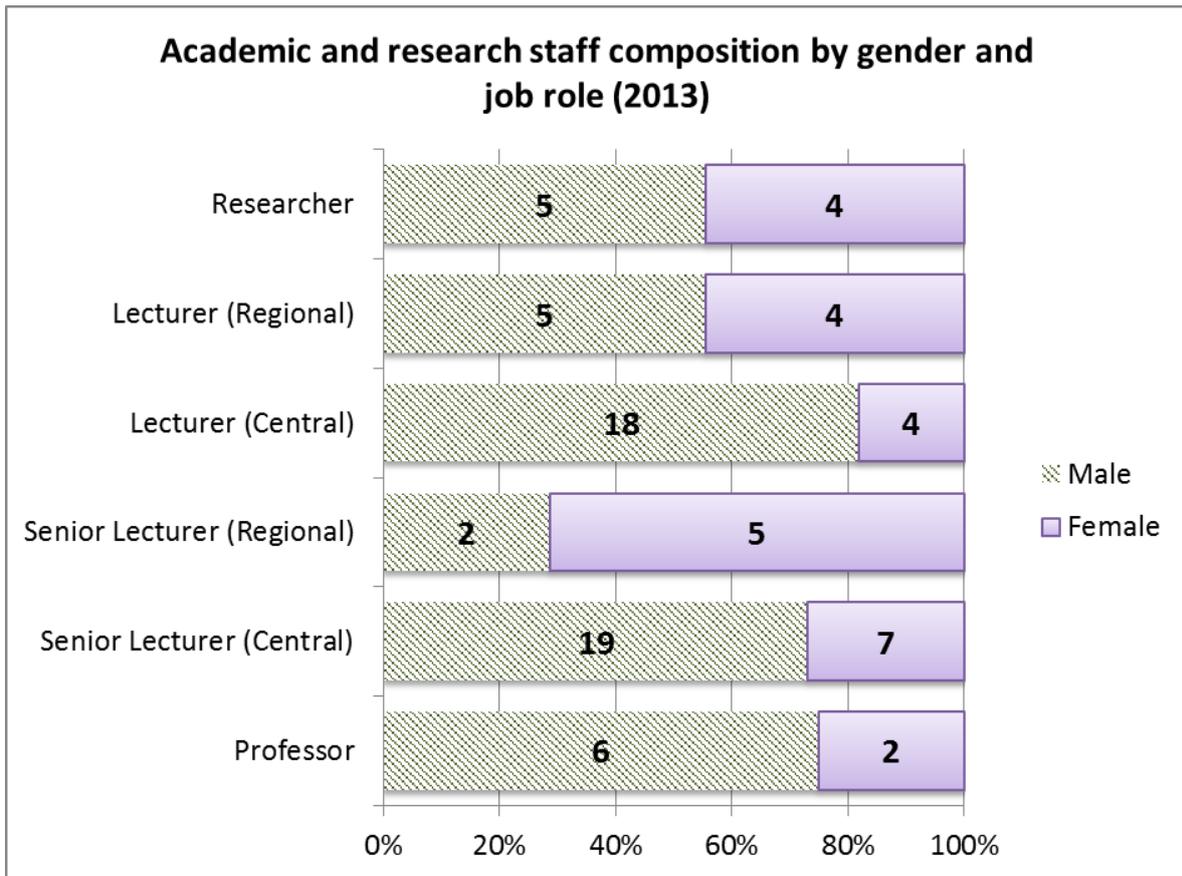


Figure 8. Academic and Research Staff by gender and job role 2013

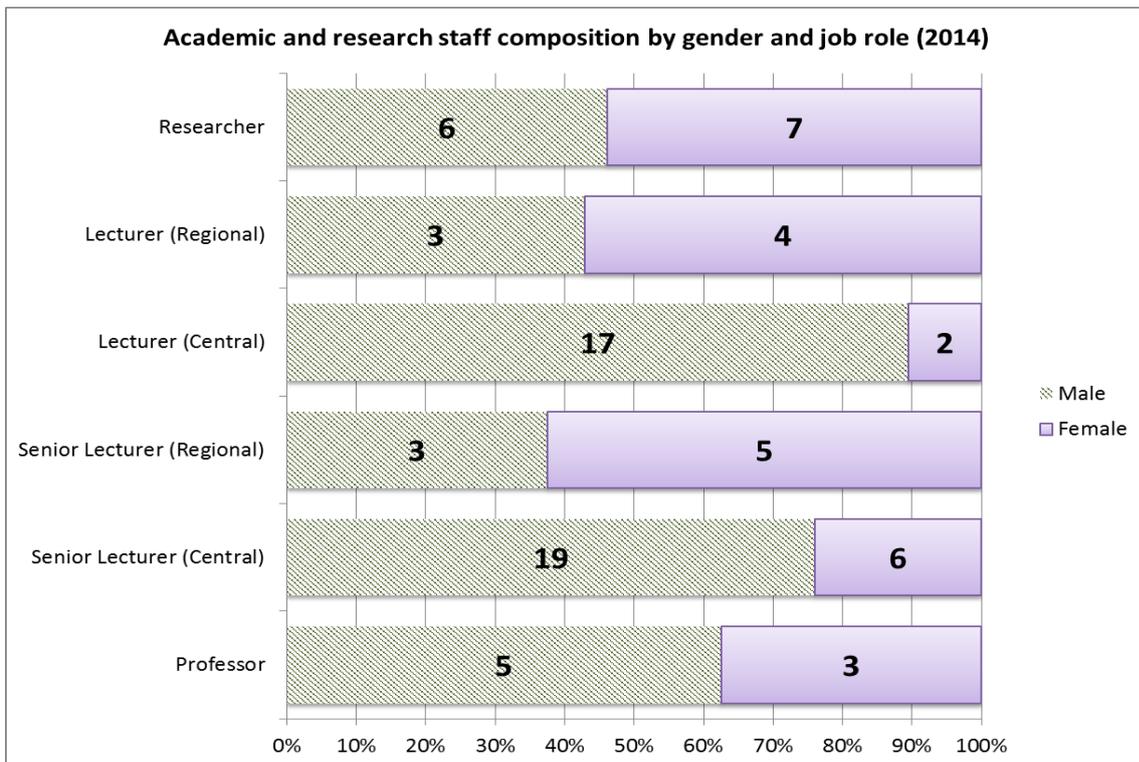


Figure 9. Academic and Research Staff by gender and job role 2014

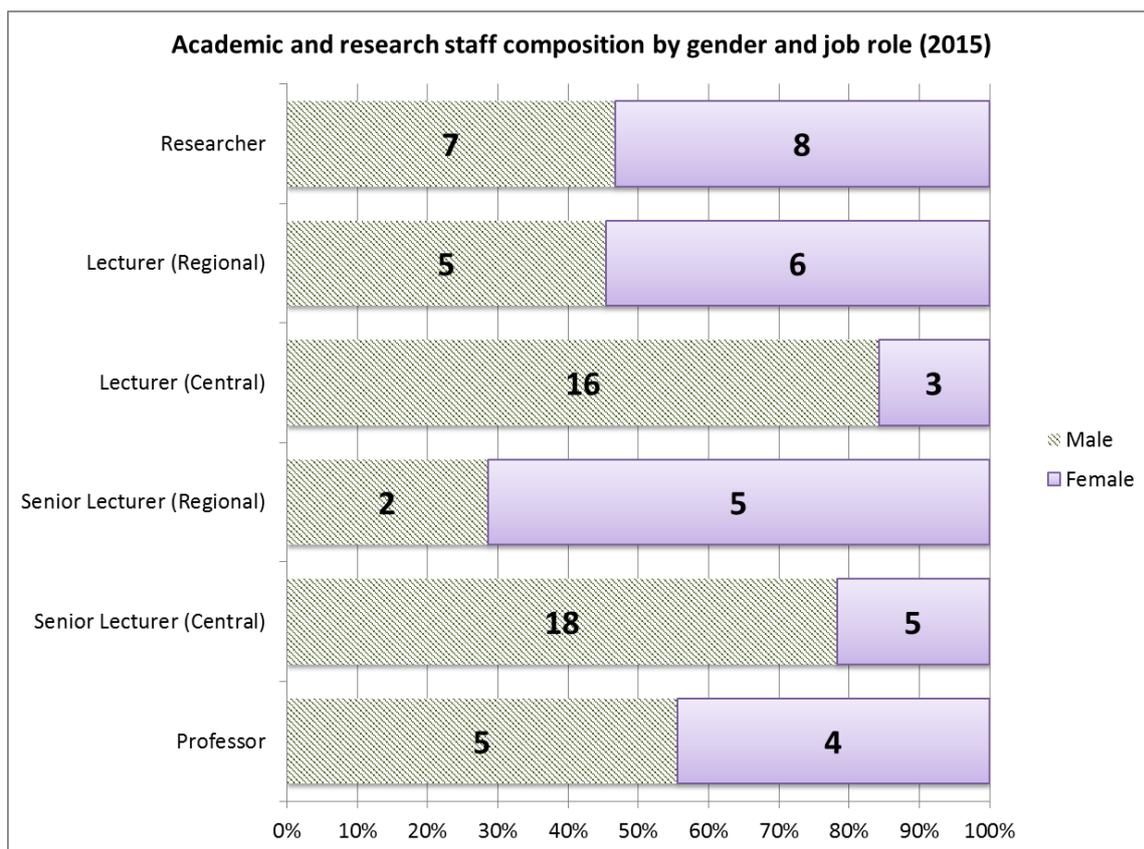


Figure 10. Academic and Research Staff by gender and job role 2015

Over the past three years, the proportion of female professors has increased steadily from 25% to 44%, comparing favourably with the sector average of 13%<sup>8</sup>. Overall, the non-professorial staff average is 33% compared to 22.6% across the sector. There are also significant differences between the proportions of women in regional and central posts, with women comprising 61% of regional lecturers/senior lecturers.

However, while women are well represented regionally and at the most senior level, Figures 8-10 highlight that this is not reflected at more junior levels. On average over the three years, women are 23% of central senior lecturers but only 15.2% of central lecturers. This is a concern for the long-term sustainability of female leadership in the department, and, in order to maintain the pipeline of women moving into senior posts, we will need to work towards a better balance at lecturer level. We therefore plan to target women in future recruitment for lecturer posts and increase the proportion of applications from women.

In all of the above figures, the vast majority of staff are full time and as figures for part time staff are small we show them separately in Figure 11. The number of part time staff nearly doubled in 2015 (n=11). Women form a bigger proportion of the part time staff over the three years, compared with the sector figure for similar departments where women are 32% of part time academic staff.

<sup>8</sup> ECU 2015 - Athena SWAN Benchmarking FTE, Figure 23.

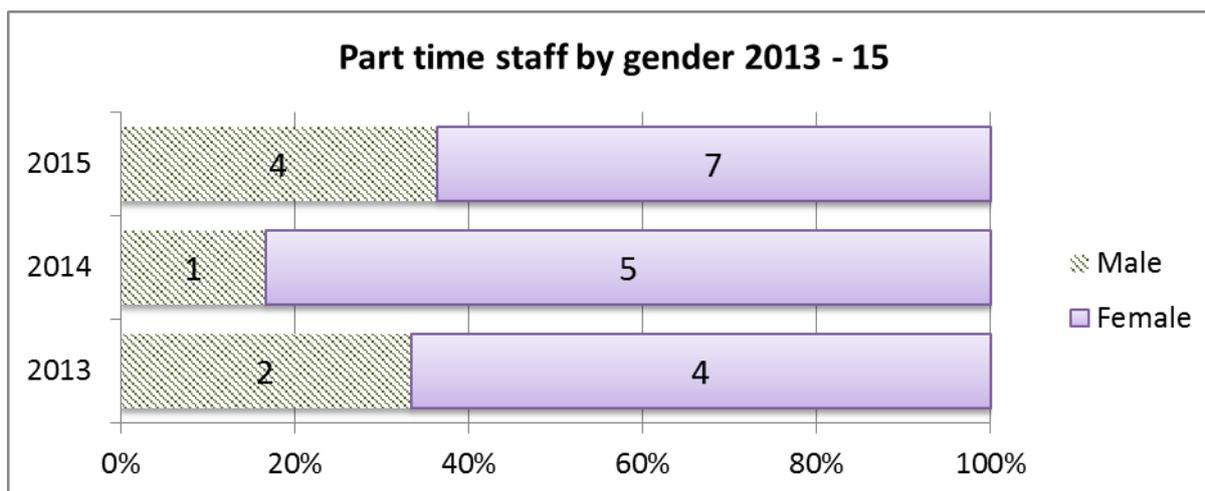


Figure 11. Part time staff by gender 2013-2015

<b>See Actions 3.1 to 3.3</b>	Proactively encourage women to apply for future lectureship posts (advertising, showcasing excellence and networking).
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- (ii) Academic and research staff by grade on fixed-term, open-ended/permanent and zero-hour contracts by gender

	2013				2014				2015			
	Female		Male		Female		Male		Female		Male	
	FTC	P	FTC	P	FTC	P	FTC	P	FTC	P	FTC	P
<b>Professor</b>	0	2	1	3	0	3	1	4	0	4	1	4
<b>Senior Lecturer (Central)</b>	0	5	0	16	0	6	0	19	0	5	1	17
<b>Senior Lecturer (Regional)</b>	0	5	0	2	0	5	0	3	0	5	0	2
<b>Lecturer (Central)</b>	0	0	0	6	0	2	0	17	0	3	0	16
<b>Lecturer (Regional)</b>	0	3	0	2	0	4	0	3	1	5	0	5
<b>Researcher</b>	4	0	5	0	7	0	6	0	8	0	7	0

Table 10. Fixed-term contract (FTC) and permanent (P) staff by gender

In 2015 there was one male professor on a fixed-term contract (out of a total of nine), one male central senior lecturer and one female regional lecturer on fixed-term contracts (this is because these posts were funded via external time grants). All the fixed-term researchers across all three years were employed on short-term research grants and the gender ratio is fairly even, so there does not appear to be any disparity that needs addressing. However,

we are aware that short-term contracts can have a negative impact on women’s career progression and we do offer a range of support for career development. The Head of Department meets with fixed-term contract staff six months before the end of contract to discuss next steps, including advice on where to look for internal vacancies where existing staff at risk of redundancy are given priority. Outside of the department, there is also support for fixed-term contract researchers provided in the form of workshops and expert drop-in sessions to help with CVs and job applications.

(iii) Academic leavers by grade and gender and full/part-time status

Table 11 shows the numbers of staff leaving the department between 2013 and 2015. All of the leavers were full-time employees. Among staff on permanent contracts, eight of the leavers had retired (two women and six men), with just one man resigning. All of the rest of the leavers were on short-term contracts and left either due to end of their contract or to move into other roles. Exit interviews are carried out by the HoD or Project Leader when fixed term contracts end. HR collates feedback from exit interviews centrally. We have not so far monitored reasons for leaving specifically by gender but we plan to incorporate this going forward and the HoD will report reasons for leaving to the Department Management Team as part of the annual staff review.

	2013		2014		2015	
	Female	Male	Female	Male	Female	Male
<b>Professor</b>	0	1 Ret	0	0	0	0
<b>Senior Lecturer (Central)</b>	1 Ret	0	0	1 Ret	0	1 Ret
<b>Senior Lecturer (Regional)</b>	0	0	0	0	0	0
<b>Lecturer (Central)</b>	1 Ret	1 Ret	0	1 Res	0	1 Ret
<b>Lecturer (Regional)</b>	0	1 Ret	0	0	0	1 end FTC
<b>Researcher</b>	1 end FTC	2 end FTC	1 Res 1 end FT	1 Res 1 end FTC	0	2 Res 1 end FTC

Table 11. Staff turnover for the period 2013-2015 showing retirees (Ret) resignations (Res) and end of fixed term contracts (end FTC)

(2744 words)

## 5. SUPPORTING AND ADVANCING WOMEN’S CAREERS

### 5.1. Key career transition points: academic staff

#### (i) Recruitment

Figure 11 and table 12 show the applications to academic posts in the department between 2013 and 2015. The data shows that in all three years, women applicants were more likely to be shortlisted and appointed than men, apart from the two regional lecturer posts in 2015. The percentages of women applying (average 37%, shown in bold on Table 12) were in most cases lower than that of male applicants, although this figure is still at a reasonable

level. We have included a number of actions in our plan to try to increase the numbers of female applicants for future posts.

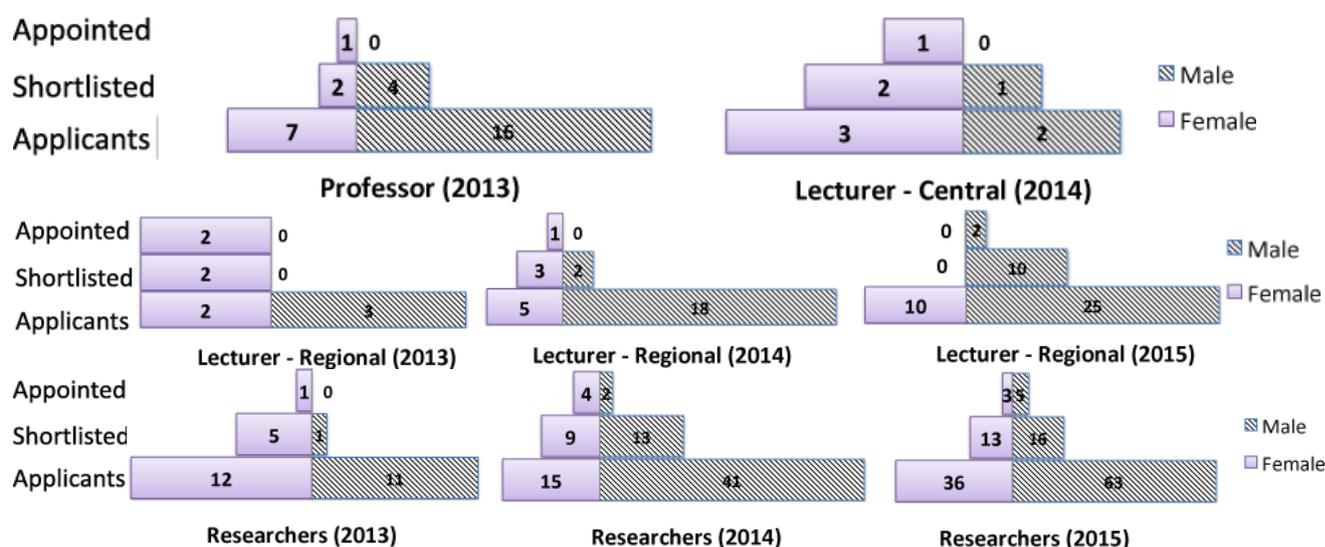


Figure 11. A breakdown of applicants and appointments for academic and research staff by gender and year

	2013						2014						2015					
	Applicants		Shortlisted		Appointed		Applicants		Shortlisted		Appointed		Applicants		Shortlisted		Appointed	
	All	%F	All	%F	All	%F	All	%F	All	%F	All	%F	All	%F	All	%F	All	%F
<b>Professor</b>	23	30	6	33	1	100												
<b>Lecturer (Central)</b>							5	60	3	67	1	100						
<b>Lecturer (Regional)</b>	5	40	2	100	2	100	23	22	5	60	1	100	35	29	10	0	2	0
<b>Researcher</b>	23	52	6	83	1	100	56	27	22	41	6	67	99	36	29	45	8	38

Table 12. Applications and appointment rates by gender and job role, showing total number plus % female at each stage.

All recruitment is managed by the Faculty Staffing Team, and begins with the department presenting a business case for the post. Once approval has been given, a panel is appointed, and we aim to ensure that panels include both men and women where possible. Training for new panel members is available in the form of a three-hour online module as well as a full day workshop on Interviewing Skills. Adverts are usually placed on the university website and jobs.ac.uk, but we plan to introduce new measures to specifically target women in future recruitment campaigns (see Actions 3.1 – 3.3.).

In addition to the appointments detailed in Figure 11 and Table 12, one male professor and one female regional lecturer were directly appointed as well as four researchers (two male and two female). In all of these cases, the appointments did not follow a selection process due to specific short-term funding for named candidates being made available for these posts.

<b>Action 3.1</b>	Work with Faculty Staffing team on future recruitment campaigns to promote the Department as supportive for women; for example emphasise flexible working and the high proportion of women at senior levels.
<b>Action 3.2</b>	Showcase the Department’s commitment and success in advancing the careers of women.
<b>Action 3.3</b>	Use ‘women in computing’ networks and social media to advertise jobs and actively encourage suitable women to apply.
<b>Action 3.4</b>	Recruitment panels (for staff and PhD students) undertake unconscious bias (Deconstructing Stereotypes) training.

#### (ii) Induction

When new staff join the department, this is announced with a ‘Welcome’ message from the Head of Department and in the department newsletter. The newsletter item encourages other department members to introduce themselves and say ‘hello’, and outlines what the new staff member will be working on and with whom. All new staff are also allocated a ‘probation supervisor’ for the period of their probation who supports them with career development. Academic staff are also allocated a mentor from the department who will support them throughout this probationary time on an informal basis.

All new staff go through a formal induction program, as set out by the University’s HR department. This is organised by the Department Office Manager and comprises five sections: department arrangements, University policies and procedures, health and safety, information regarding their specific role and an online induction module. New employees and their line managers are required to sign the induction paperwork to confirm they have received the necessary guidance and information, and are asked to complete a short questionnaire. This ensures they have understood and engaged with the induction process.

#### (iii) Promotion

In 2015, the OU adopted a new set of academic promotions criteria. These criteria encompass promotion to senior lecturer and the professorial levels. The new criteria make more explicit the range of activities that are recognised and valued for promotion purposes. The new profiles are: Teaching, Knowledge Exchange, Research, Research and Teaching. All four profiles, and at all levels, include specific criteria related to academic leadership.

Importantly, the new promotion criteria allow for reductions in expected achievements for staff who have taken periods of parental leave or part-time working, or where other special circumstances apply. This aspect is along similar lines to the criteria applied in the 2014 REF.

Within the department, there is a two-stage process for identification of potential candidates for promotions to senior lecturer: all CVs are scrutinised by the HoD and a group of appraisers annually, and potential candidates are notified. Promotion case documents are then developed by the candidate, together with considerable support from the HoD, Deputy HoD and the candidate's appraiser or mentor. This close personal support continues throughout the several stages of detailed drafting and feedback. The Faculty's Academic Staff Promotions and Rewards Advisory Group (ASPRAG) reviews all the written cases and CVs, and gives detailed feedback for improvement, in a number of iterations. Finally, ASPRAG recommends which candidates should go forward to the University's Academic Staff Promotions Committee (ASPC). Candidates are very well supported by the department throughout this process.

Promotions to reader or professor are submitted to the University Academic Staff Promotions Committee (ASPC) after consideration by the faculty's Chairs Working Group (CWG), which has a near equal gender balance and a female chair.

Promotion from Research Assistant to Research Associate (AC2) and Research Fellow (AC3) requires evidence of achievement in research, and assessment of satisfactory progress. It is the responsibility of the individual's line manager (usually their research group leader) to verify this and present the case for approval by the faculty ASPRAG.

	2012				2013				2014				2015			
	Applied		% successful		Applied		% successful		Applied		% successful		Applied		% successful	
	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M
<b>Promotion from Lecturer to Senior Lecturer</b>																
<b>Central academics</b>	1	3	0	100%	0	1	-	100%	0	3	-	0%	1	5	100%	100%
<b>Regional academics</b>	0	0	-	-	0	1	-	100%	0	1	-	0%	0	0	-	-
<b>Promotion from AC2 to AC3 Grade</b>																
<b>Researcher</b>	0	3	-	100%	1	0	100%	-	1	0	100%	-	0	0	-	-
<b>Promotion from Reader to Professor</b>																
<b>Reader</b>	0	0	-	-	0	0	-	-	1	0	100%	-	0	0	-	-

Table 13. Number of cases submitted for promotion and success rates 2012-2015

Table 13 shows the numbers of cases submitted for promotion, and the success rates. Over the time period 2012-2014, which was prior to the new promotions criteria, there was only one (unsuccessful) application by a female central academic for promotion, compared to seven applications by men (four of which were successful). This gender imbalance largely reflects the gender balance among lecturers in the department (over 80% male). There were no applications for promotion from female regional academics during these three years. In 2015, under the new revised academic promotions criteria, there have been six cases submitted: one female and five male lecturers and all have been successful.

Regional academics are eligible for promotion to professor, but this is rare in any part of the university, in effect creating a glass ceiling for these staff members. It is hoped that new promotions criteria will help open up new routes to professorships for regional staff. In 2015, 11 out of the 18 (61%) regional academics were women, so their career progression may benefit from this. Our department recently participated in a research project investigating careers paths of all STEM Regional Academics and the recommendations from this will inform the department in developing its staff's career progression. It will be important to provide good career guidance and support for both men and women seeking promotion, in particular for regional academics, and we will address this in our action plan.

<b>Action 4.1</b>	Develop career progression support for Regional Academics.
<b>Action 4.2</b>	Monitor the appointment of staff to positions of responsibility, and ensure that women are offered appropriate leadership roles to assist with promotion.

(iv) Department submissions to the Research Excellence Framework (REF)

	Female			Male		
	Eligible	Submitted	% Submitted	Eligible	Submitted	% Submitted
<b>REF 2014</b>	29	8	28%	53	14	26%
<b>RAE 2008</b>	24	6	25%	38	10	26%

Table 14. Female and male submissions to RAE/REF 2014 and 2008

For both REF 2014 and RAE 2008, all academic and research staff (central and regional) were considered eligible. As Table 14 shows, for the 2008 RAE, roughly equal proportions of eligible female and male staff were submitted. For the 2014 REF the situation was similar, with roughly 27% submitted both for female and male staff. Compared to 2008, the proportion of men stayed the same (26%) but the proportion of women improved from 25% to 28%.

In practice, the responsibilities of regional academics make it difficult for them to produce REFable publications, as their terms and conditions include only half the research and scholarship days of central academics. Thus despite being considered eligible, no regional staff were submitted for either REF 2014 or RAE 2008. If we consider only central academic staff, then women's submission rates were almost double that of men, with 60% submitted in 2008 compared to 33% of men and in 2014, 66% submitted compared to 31% of men.

Internal University REF 2014 criteria are strongly based on targets related to the number of 3+4\* papers. We were disappointed that we were unable to include any lecturers (either male or female); all female professors in the department were submitted. Research associates/fellows could only be submitted if they had an independent profile (which is hard to achieve if they are part of a group project). On this basis, we were able to submit one female and one male research associate/fellow.

In planning for REF2020+, several members of the department (mainly women), are working towards inclusion in the Education UoA, and are being supported through a series of workshops organised by eSTeEM (OU's Centre for STEM Pedagogy) to develop their scholarship and writing. This includes some Regional Academics and we will ensure via workload planning that they are able to take their allotted entitlement of research days in order to increase their potential of inclusion in REF2020+.

<b>Action 4.3</b>	Allocate time for regional academics to undertake research/scholarship activities.
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## 5.2. Career development: academic staff

### (i) Training

The Department has a substantial staff development budget for external training, including seminars and conferences, and it is rare for requests to this budget to be refused. These opportunities have been taken up by members of the Department both to increase their technical knowledge and skills, and for professional development.

Several of our department members have participated (both men and women) in the OU's Academic Leadership Development Programme. A mid-career female member of the department has just started on the Aurora leadership programme.

All new staff are required to undertake the online Valuing Diversity module, and the University run three 'Equality Expert' half day workshops on Conducting Equality Analysis, Deconstructing Stereotypes and Valuing Student and Staff Difference.

As part of the annual appraisal process, staff are asked to identify their future needs for staff development. These are collated, in order to plan for staff development events and initiatives. In the future, the department will keep data on gender where anonymisation can be maintained (Action 4.4).

The OU also has our own OpenPAD professional recognition scheme allied to the HEA Fellowship scheme (to be replaced in September 2016 by the APPLAuD scheme). University figures show that significant numbers of women have been awarded HEA Fellowship. However, overall more men than women have gained Senior Fellowship, and we will therefore encourage women to aim for higher level accreditation.

We do not currently monitor or review uptake of training and career development opportunities by gender but plan to do so going forward as detailed in our action plan.

<b>Action 4.4</b>	Follow up data on staff development needs, analyse these by gender (with additional data collection). Draw together lessons for future staff development for the department as a whole.
<b>Action 4.5</b>	Monitor, through CDSA, uptake of leadership training and other development programmes by gender, and encourage staff to attend, including gaining accreditation from HEA, OpenPAD, or its successor APPLAuD.

#### (ii) Appraisal/development review

Each staff member is assigned a named appraiser for Career Development and Staff Appraisal (CDSA), and meets with their appraiser (at least) annually in March/April to review past achievements and set objectives for the coming year. Each appraiser typically has up to five colleagues to appraise. Training for new appraisers is provided through online videos and learning materials, and documentation on the CDSA process is circulated to all staff prior to the annual CDSA meeting.

Consideration is given to appropriate pairings of appraiser and appraisee, with both parties able to request a change at any time. Within the Department, appraisers are increasingly taking a mentoring role, and we plan to extend this aspect further.

The CDSA provides an opportunity for planning career goals (short-term and long-term) and identifying training and development needs. The university's Leadership Competency framework is used as it aligns with the requirements of the new promotions criteria. A report of the annual CDSA, with reflective comments by both appraiser and appraisee, is signed off by the HoD and returned to both appraisee and appraiser.

The vast majority of engage actively with CDSA, and report finding it a valuable opportunity to pause, reflect and plan. Engagement is a requirement for any promotions or rewards cases.

#### (iii) Support given to academic staff for career progression

The annual CDSA review provides the opportunity for one-to-one career discussions and mentoring. Each person's work is planned to enable appropriate experiences to be gained,

particularly to prepare people for promotion in future years. Support for promotion candidates has been outlined in Section 5.1(iii)

In response to the new promotions process and criteria introduced in 2015, we will be putting in place staff development workshops to inform staff, and help them to plan and prepare for future promotion.

Support is given to postdoctoral researchers both within the department and at university level. There is a comprehensive programme of events and professional training offered by the OU's Research Career Development Team part of the OU Concordat with Vitae. This includes a programme of online self-study modules called Professional Skills for Research Leaders, aimed at early career researchers. As well as attending events and training, researchers are encouraged to use the online Researcher Development Framework (RDF).

Career progression for Research Associates into main grade lecturing posts also requires teaching experience. We have addressed this in our action plan by making available teaching opportunities for research associates within module teams, and encouraging them to apply for short-term tutoring positions.

<b>Action 4.6</b>	Create opportunities for Research Associates to gain teaching experience within module teams and other tutoring.
<b>Action 4.7</b>	Provide mentoring, training and support for staff in understanding the new promotions criteria and preparing for promotion cases.

#### (iv) Support given to students (at any level) for academic career progression

All students on taught modules (UG and PG) are assigned to a named Associate Lecturer or tutor, who provides both face-to-face and online tutorial support as well as marking and feedback on continuous assessments. Telephone and email advice and additional support is also provided by subject-specialist Student Support Teams and advisors based in our Regional Centres.

The OU support for PhD students is run via our Research School. A programme of training and development events runs annually and connects the students from the department with the rest of the OU PhD student community.

The Virtual Research Environment (VRE) is an online portal for doctoral training and skills development. Through the VRE, students can also access the Researcher Development Framework, a professional development planning tool developed with Vitae, where they can assess and record their skills and competencies.

All PhD students are allocated a third party monitor to whom they can go for advice, in addition to their formal supervisors. Female students are entitled to request a female supervisor or monitor if they wish. We offer to help PhD students gain teaching experience (e.g. shadowing members of staff, drafting assessment material, marking, sessions in local schools, giving seminars).

Within the Department, there are weekly gatherings of full-time PhD students, known as the PG Forum. At these sessions, research skills and career planning take place (including sessions on CVs, interviewing, networking, setting a longer-term research agenda and bidding for funding). There is an online version of PG Forum for part-time students. There is also a departmental PhD student wiki with information and advice on the PhD process, which students report finding very useful.

We are aware that women are in a minority in the IT sector and we could enhance how we support the employability of our women students. We already encourage our female research students to network with other female STEM academics and to take part in ‘women in computing’ networks both internally and externally. We plan to develop an initiative to provide industry mentors for undergraduate women students.

<b>Action 4.8</b>	Support employability of women Computing and IT graduates by developing an industry/alumni mentoring scheme.
<b>Action 4.9</b>	Continue to encourage female PhD students to attend networking events at departmental, university and national level, providing funding to facilitate this, and monitor and report this involvement by gender.

**(v) Support offered to those applying for research grant applications**

Support for writing research grant applications is given both within the Department and at faculty level. The Faculty Research Office provides pre-bidding support in the form finance and budget estimates as well as advice on specific funding requirements. Information about upcoming funding opportunities is circulated regularly within the Department. Bidders are encouraged to seek peer reviews from colleagues and this is logged in our faculty online system. If bids are unsuccessful, informal support is given by colleagues within the same research group, and the applicants are encouraged to reapply if possible. However, we are aware that these support measures could benefit from being made more transparent and formalised, so we have included the development of structured support for research grant applicants in our action plan.

<b>Action 4.10</b>	Develop structured support for research grant applicants, including help for unsuccessful bidders.
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**5.3. Flexible working and managing career breaks**

The following section covers the following staff categories: central and regional academic staff, research staff, and support staff (see note at the end of Section 2 regarding this last group). It does not cover our part-time teaching-only staff (Associate Lecturers).

(i) Cover and support for maternity and adoption leave: before leave

As soon as a member of staff informs the department that she is pregnant, the Head of Department arranges a meeting at the earliest opportunity to ensure that the staff member knows she will receive full support during pregnancy, maternity leave and with return to work. The Head of Department makes sure that the staff member is in touch with human resources advisors to understand how maternity leave policy works. They can also get support from the faculty staffing team.

Recent work from research commissioned by the university-level Athena SWAN team has investigated the key needs for those on maternity level. Although most of the priorities identified are at a university level, there are recommendations for departments prior to maternity leave. Resulting from this research, the University is producing updated guidance and a clear checklist on maternity leave that the Department will follow. Two key points are around the value of buddies/mentors, and the importance of clear forward planning for Keeping-in-Touch days.

<b>Action 6.1</b>	Establish a buddy/mentor for each individual going on maternity/adoption leave, prior to the start of their leave.
<b>Action 6.2</b>	Agree a pattern of Keeping-in-Touch days for periods of maternity/adoption leave.

(ii) Cover and support for maternity and adoption leave: during leave

With options for maternity leave (with and without pay) and accumulated holiday, it is normal for individuals to be absent for 9 to 12 months. The Department supports an individual to manage her maternity leave through workload planning, making sure that there is someone to take over her work when she stops and agreeing the areas she wishes to pick up again when she returns, especially if she plans to request a reduction in hours on her return (which the Department has always supported). The focus of this detailed workload planning is to try to align workload with career development objectives and ensure a balance of activities within research and teaching are maintained. Keeping-in-Touch days have been wellused within our department.

(iii) Cover and support for maternity and adoption leave: returning to work

We want to ensure that an individual feels confident in being able to continue to develop as an academic following maternity leave, in the knowledge that she has the full co-operation of management and colleagues. To date this has been achieved on an informal case-by-case basis, but we are working towards formalising the entitlement to dedicated research time for returners from maternity leave as part of a wider university initiative. This is important given the demonstrable links between research contributions and career progression (notwithstanding the new promotion criteria mentioned above).

One staff member who recently returned to work following maternity leave provided the following account of her experience:

*“The department has allowed me to take all my annual leave entitlements in one go, which gave me an extended period to be at home with my twins. On my return to work, the department has given me a teaching load that allows me to concentrate more on my research activities, and for a better transition from the maternity leave period to the return to work period.”*

<b>Action 6.3</b>	Formalise entitlement to a defined study leave period after maternity leave to support a return to research. Offer a research mentor for women returning from maternity leave.
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Although this action is not directly relevant to support staff, whose duties are different, the principle of supporting a phased return to work applies to these staff as well.

#### (iv) Maternity return rate

The number of women taking maternity leave is shown in Table 15. There has been a 100% return rate. There were no regional or research staff taking maternity leave during this period.

	2013		2014		2015	
	Number	% return	Number	% return	Number	% return
<b>Central academic</b>	2	100	1	100	0	n/a
<b>Support staff</b>	0	n/a	1	100	0	n/a

Table 15. Women in department taking and returning from maternity leave

#### (v) Paternity, shared parental, adoption, and parental leave uptake

The levels of formal uptake of this kind of leave has been low, as shown in Table 16. There were no regional, research or support staff taking these kinds of leave during this period.

	2013		2014		2015	
	Number	% uptake	Number	% uptake	Number	% uptake
<b>Central academic</b>	1	Unknown	1	Unknown	0	Unknown

Table 16. Men in department taking paternity and related types of leave

We do not have information as to whether the above figures include all potential cases of paternity leave, that is whether there were fathers (or adoptive parents) who could have taken paternity leave but did not do so. An action point is to encourage all new fathers to take the paternity leave to which they are entitled (10 days at full pay).

The University has introduced a Shared Parental Leave policy in line with recent legislation, allowing staff with caring responsibilities for babies or newly adopted children to share up to 50 weeks of leave and up to 37 weeks of Shared Parental Pay. Because this is a new policy, we have no figures on uptake yet.

<b>Action 6.4</b>	Actively encourage and support new fathers (and same-sex partners of new mothers) to take their statutory entitlement to parental leave, and to consider whether Shared Parental Leave would work for their family.
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(vi) Flexible working

The OU introduced a formal policy of ‘agile working’ (formalised arrangements for flexible working, including reduced hours or days, staggered hours of work, home working etc.) in June 2014 in response to legislation. To date, there have been no requests for agile working within our department. The number of staff who have set up formal flexible working arrangements is small, partly because there is already a strong culture of informal support for flexible working (see OU Guidance document). At present, 6 out of 80 academic staff (of all categories) have agreed a part-time contract.

Specific instances when staff have requested reduced hours contracts on a temporary basis have included one female lecturer who applied to work part-time following her maternity leave (initially three days a week and then four days); and another reduced her hours to 80% as a precursor to retirement. Both of these requests were granted. Two members of support staff have been granted flexible working arrangements, both during 2015: one was a shift to part-time working following a return from maternity leave; the other was a temporary reduction to four days a week for a two-month period.

(vii) Transition from part-time back to full-time work after career breaks

The University has supported a number of staff transitioning from part-time to full-time roles. The agile working policy specifically recognises that part-time arrangements are not permanent, and a return to full-time working is an option to be discussed either within the annual appraisal system or directly with the Head of Department. This applies to support staff as well as academic/research staff. There are specific policies in place to avoid disadvantaging those whose research outputs are reduced through career breaks or part-time working, in promotion cases and REF submissions. For example, one female central academic returned part-time (0.6 FTE, followed by 0.8 FTE) after two periods of maternity leave. Following discussions with, and support from her appraiser and HoD she returned to work full-time in 2014 with an informal agreement that she was able to work from home on a set day each week for six months.

## 5.4. Organisation and culture

### (i) Culture

We carried out a consultation with department academic and research staff in late 2015 to ascertain their views on the organisation and culture of the Department: 35 out of 84 staff responded (42% response rate). Over 75% agreed that equality and inclusivity is taken seriously by the University and the Department. Within the Department, there is appreciation of the good gender balance at professorial level. With a high proportion of women in senior posts, the culture and behaviour within the department is female-friendly and inclusive.

Our central staff are located in two different buildings and due to flexible working culture, many choose to work from home part of the time. We have therefore put into place measures to enable networking and social contact where possible. Informal interaction is facilitated by the open plan environment of one of our buildings, which has soft seating and kitchen areas. In the other building, where there are offices, most people leave their doors open so it is easy to have informal interactions. There is a regular weekly coffee morning for informal networking at which staff from the two buildings can get together.

All staff and students are invited to weekly seminars (many with invited guest speakers) with lunch provided beforehand to encourage a sense of community. Because part-time students find it difficult to attend, recordings of the seminars are available via the web; this helps to include all staff and students more fully in the department research culture. Regional staff are also encouraged to 'attend' these seminars remotely.

We organise regular departmental away-days off campus, which enable informal relationship building and networking. There is an annual 'Research Fiesta' which offers the chance for creative and social interaction related to departmental research. There is also an annual PhD student conference, at which students present their work to each other and to staff members.

### (ii) HR policies

Most HR and staffing functions are the responsibility of the Faculty Staffing Team and are thus carried out outside of the Department. One of the department administrators is the link person for all HR issues and informs the HoD, as the formal line manager of all academic and research staff in the department, of updates to policies. There are a range of online training modules and workshops available via our Learning Centre. There are specialist training events targeted at other staff with management or leadership responsibilities that may require HR knowledge (such as module chairs, PhD Supervisors and research group leaders). We have not to date monitored uptake of these systematically, but we plan to do this as part of our action to get a better picture of the training and development of staff (Action 4.4).

### (iii) Representation of men and women on committees

As evidenced in Table 17, there is good representation of women on decision-making committees within the department and at faculty level. The average proportion of women

on all but the Undergraduate Programme Committee over the three-year period ranges from 38% to 50%; the Undergraduate Programme Committee's average is 26%, although the proportion has increased in the most recent year. In our 2015 staff survey (42% response rate, 14 women and 21 men), we asked people to comment on how they had been identified for committee membership. We found that, for internal committees, men were slightly more likely to nominate themselves rather than be approached to join committees. Ten women indicated they were members of internal committees; eight of these were approached to join and two self-nominated. Thirteen men indicated they were members of internal committees; eight of these were approached to join, and five self-nominated.

	2013			2014			2015		
	F	M	% Female	F	M	% Female	F	M	% Female
<b>Department Management Team</b>	4	7	57%	4	5	44%	4	7	36%
<b>UG Programme Committee</b>	4	11	27%	3	10	23%	3	7	30%
<b>Postgraduate Programme Committee</b>	5	9	36%	7	11	39%	8.5*	12.5*	40%
<b>Chairs Working Group</b>	4	5	44%	4	5	44%	4	9	31%
<b>Faculty Promotions Committee (ASPRAG)</b>	5	6	45%	5	4	55%	6	4	60%
<b>Research Committee</b>	2	5	29%	5	3	62%	5	3	62%

Table 17. Male and female representation on key decision-making committees (all are faculty level committees apart from Department Management Team). \* One job share

Vacancies on committees, or opportunities for new roles, are normally advertised within the appropriate group, for example, within the faculty for faculty roles. We plan to create a list of all faculty committees and notification of vacancies as they become available, and ensure that women in the Department are encouraged to apply. Individual women are already actively encouraged by the HoD and CDSA appraisers to apply for roles to support their career development.

Three female members of the Department currently occupy senior management roles within the faculty: Associate Dean for Research, Associate Dean for Curriculum and Qualifications, Executive Dean (this is the most senior role in the Faculty). These department members sit on a range of university level decision-making bodies. The Executive Dean is a member of the Vice Chancellor's Executive, which is the most senior management body in the University. Four members of our department (one female and three male) are appointed members of Senate, which is the university's most senior academic decision-making body.

<b>Action 1.5</b>	Initiate annual audit of internal and external committee membership and report on gender breakdown.
<b>Action 5.1</b>	Create, circulate and maintain a list of committee opportunities for department members.

(iv) Participation on influential external committees

All staff are entitled to take part in external and public engagement activities, including membership of professional networks and influential committees. They are encouraged to take up such opportunities, for example, these may be identified during annual appraisals. Opportunities are also circulated in the department newsletter and email communications. We have not routinely monitored data on participation in external committees to date, but in our staff consultation (42% response rate, 14 women and 21 men) all five women who reported being on external committees said they had been approached; among the eight men who reported being on external committees, only five had been approached. This perhaps indicates that women were less confident about nominating themselves for such posts. We plan to collate and monitor data on committee membership going forward and proactively encourage women to take up opportunities for external committee membership, as part of Action 5.1 (see above).

(v) Workload model

Workload allocation is divided into teaching, administration and research. Workload planning is informed by objectives for the faculty and department, peer support through appraisals and shared responsibility for teaching and research commitments. CDSA appraisal outcomes, in terms of people's aims and preferences, feed into the workload planning of the Department for the following year. Appraisers meet together three times during the year to review staff career development, potential promotions/awards/increments and staff workload.

Preliminary workload plans are completed in April-June for the following year, and projected days allocated to different tasks are recorded in the faculty Academic Workload Management system (AWM). Actual days for work carried out the previous year are also recorded here. Monitoring of the gender distribution of workload, especially the balance between teaching and research, is carried out annually at faculty level by analysing 'actuals' for the previous year. There is a category for work on Athena SWAN related issues within the Academic Workload Management system, and this is considered as valuable administrative and managerial work within the appraisal and promotion system.

<b>Action 5.2</b>	Check for gender disparity in the balance between teaching, administration and research. Discuss proposals with the department to share completed workload plans to ensure transparency.
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Despite the activities described above, there is still a perception in some parts of the Department that there is a lack of transparency and equity around workload plans, especially as this has implications for meeting promotion criteria. These issues came up in our 2015 departmental consultation, although not particularly in relation to gender parity.

#### (vi) Timing of departmental meetings and social gatherings

In our departmental consultation we asked about timing of departmental meetings and there was overwhelming agreement that scheduling of meetings was planned in a way to enable inclusion. The main departmental meetings are scheduled between 10.00 am and 4.00 pm and it is unusual for other meetings to start before 9.30 am or to finish after 5.00 pm. Many meetings involve regional academics who have to travel long distances, so the meetings are planned well in advance in order to allow staff to make appropriate travel arrangements. It is very common for staff to participate by phone or video conference or via our Lync system which allows staff to join in remotely enabling participants to see slides, hear presentations and to contribute to discussions.

Research seminars are held at lunchtimes with opportunities to socialise in various ways before and after such events. Other departmental social gatherings (for example a summer barbecue and winter festive meal) happen at lunchtimes rather than evenings, enabling regional colleagues to attend. We have two Away Days per year held off campus and these are notified well in advance. As these are usually in locations not accessible by public transport, lift sharing is arranged. Timings of events, meetings and seminars are changed periodically to adjust to the changing needs of department members, for example to accommodate those with caring responsibilities needing to leave early.

#### (vii) Visibility of role models

Our department website features positive images of men and women, and we have made particular efforts to maintain a good gender balance. For example, the 'Study' page shows two female students and one male. The 'People' page has a photo with 11 male members of academic staff and five female members. We have now identified that the 'Research' page needs changing, because it shows three men, but no women, and we plan to use this to display the excellent research work of women in the Department.

Our department's Industrial Advisory Board considered the question of low recruitment of female students, and two of their members (both women) looked in some detail at the issue, and were concerned about the gender balance of the images in the university's Computing and IT prospectus. Following their report, the prospectus was changed in 2015 to have a better balance of women and men in its imagery. We will continue to monitor the gender balance of images in our websites and prospectus.

In 2015 we began monitoring the gender balance of speakers (both internal and external) at our departmental seminars. We found that this was fairly balanced, with 13 men and 10 women. We are committed to ensure that any conferences or other events run by the department have women represented on panels.

<b>Action 5.3</b>	Review and refresh information and case studies on the department website regularly.
<b>Action 5.4</b>	Amend photographs on the 'Research' page of the departmental and student registration website to show a balance of women and men.

#### (viii) Outreach activities

About a third of the department (11 out of the 36 respondents to our online survey), reported they were involved in outreach activity. In this sample the percentage of women doing outreach was 35% (n=5) compared to 28% (n=6) of the men who responded. However, as the numbers of respondents is quite small it is difficult to conclude whether there is any gender imbalance around participation in outreach. All external activities are formally recognised in the workload model under a category known as Knowledge Exchange and are highly regarded within appraisal and promotion cases.

Two male lecturers are involved in robotics outreach work with schools and have focused on creating inclusive workshops that attract both girls as well as boys. A recent activity carried out together with the Royal Institution attracted 18 boys and 22 girls. An evaluation project is underway to investigate the gender aspects of how the children interacted and which aspects they enjoyed. This work has already identified interesting findings about grouping of girls and boys, prior friendship connections and physical layout of the learning space. A group of staff (both men and women) are actively working on research around the uptake and engagement of girls in the new schools computer curriculum via the Computing at Schools initiative.

In addition, our regional academics organise and participate in external events across the regions and nations of the UK. For example, colleagues from the Department participate in annual events organised for employers and students by Manchester Digital, a trade association in the digital and creative sectors in the North West. In Wales, the regional academic co-founded a group, with colleagues from other Welsh Higher Education Institutions, to promote computing and communications jobs for girls and women.

The OU has a strong media presence through our Open Media Unit and department staff have the opportunity to contribute as academic advisors to BBC programmes. Department members are also actively engaged in the development of informal learning resources such as Badged Open Courses and MOOCs as well as Open Learn. Media training for all staff is available and the gender balance of uptake is monitored and reported at faculty level. Figures for the whole university (Table 18) suggest lower uptake from STEM women than men, so we will actively encourage women in the department to consider training opportunities and monitor the uptake.

	Men		Women	
	No	%	No	%
<b>All faculties</b>	93	51%	91	49%
<b>STEM faculties</b>	35	73%	13	27%

*Table 18. Academics and researchers who undertook media training 2011-2015*

(5743 words)

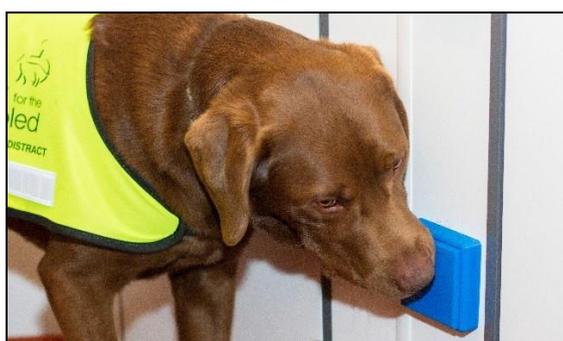
## 6. FURTHER INFORMATION

The Department supports projects and research about gender and STEM, including specifically about women in computing (both in education and employment). In particular, the International Journal of Gender Science and Technology, a leading international open access journal publishing current research on gender and STEM, was founded within the Department. We continue to provide editorial, technical and logistic support for this journal, which is also aimed at practitioners and policy makers.



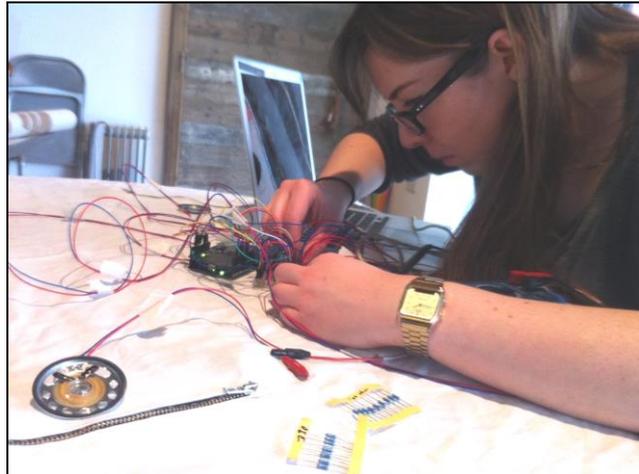
With the encouragement of the OU Chancellor Martha Lane Fox, members of the Department are taking forward an initiative to develop an industry-led project to train women in programming. The Computing and Communications Department will be central to the development and delivery of this. We also have a new ESRC funded research project starting in 2016 with colleagues from Social Sciences undertaking a comparative study of women's careers in the IT industry in India and the UK.

The Department encourages and gives logistical support for women to engage the public with their research. As an example, Clara Mancini, one of our early career lecturers, recently held exhibitions of her research on Animal Computer Interaction at the Royal Society and at the Natural History Museum. She is pictured below with PhD student Charlotte Robinson whose poster 'Developing Technologies to support Canine Support Workers' was awarded first prize at the 11th London Hopper Colloquium 2015.



Individual members of the Department have been involved in external networks and initiatives related to women in IT and computing, eg the BCS Women, Women in Computing Research (WICR) network, ACM-W, WISE and the Women's Engineering Society.

Several of our SAT members (and departmental colleagues) are involved in other equality related work, for example to support disabled students through developing and implementing innovative learning technologies, e.g. researcher Sarah Wiseman (below) experimenting with haptic technologies for visually impaired people.



(302 words)

**The Open University Department of Computing and Communications**  
**Athena SWAN Bronze Award Submission**  
**2016 Action Plan**

(\* indicates highest priority)

Action Ref No	Planned action/ objective	Rationale (i.e what evidence is there that prompted this action/ objective?)	Key outputs and milestones	Timeframe (start/end date)	Person responsible (include job title)	Success criteria and outcome	
<b>Evidence gathering and reporting</b>							
1.1*	Establish an annual cycle of SAT meetings and reporting schedule to Departmental Management Team and whole department.	All actions in this plan will need to be owned and integrated into departmental strategy and planning.	SAT meets every two months. Reporting on Athena SWAN/ gender data at departmental management team every three months and at whole department meetings once a year.	October 2016	Ongoing	SAT Chair and Head of Department	Department is informed, and involved in the Athena SWAN initiative and considers issues of gender equality and diversity routinely as part of all decisions.

1.2*	Put in place a system for regularly collecting and reviewing gender data on the recruitment, progression and attainment of undergraduate and postgraduate taught students.	Data not currently routinely analysed at department or programme level. Regular data will underpin and enable monitoring of success of actions in Section 2 of this plan	Module teams have access to data disaggregated by gender. All Quality Assessment reports to the faculty and University include data broken down by gender.	October 2016	Annual	Board of Studies Director and Module Chairs	Board of Studies and Module Chairs are aware of any gender disparities and can develop interventions as required.
1.3	Establish a system for reviewing gender data on postgraduate research student applications.	Data suggests low numbers of women applying for part time research degrees. See also Action 2.3	Applications and acceptances reported annually to Department Management Team and shared with department as a whole.	July 2016	Annual	Postgraduate Admissions Tutor, with support from Department Office Manager	Postgraduate Admissions Tutor and department members are aware of any gender disparities and can develop interventions as required.
1.4*	Establish annual review of staffing recruitment and promotion data by Department Management Team.	Data not currently routinely analysed at department level. Regular data will underpin and enable monitoring of success of actions in Section 3 and 4 of this plan	HR supplies annual report in May. Annual review of gender data embedded in Department Management meeting cycle. Trends monitored and any concerns	May 2016	Annual	Department Management Team	Work towards a more equal gender balance across all staff groups, and maintain pipeline of women for senior roles.

			identified and addressed at an early stage.				
1.5	Initiate annual audit of internal and external committee membership and report on gender breakdown.	Staff survey showed women less likely to nominate themselves for committees (see also Action 5.1)	Greater visibility of women's influence and responsibilities. Identification of any gender disparities leads to proactive support by HoD and CDSA appraisers. SAT Chair organises survey and reports results	Dec 2016	Annual	SAT Chair and Department Management Team	Women and men are equally enabled to take on career enhancing positions of influence and responsibility.
<b>2. Undergraduate and Postgraduate Students</b>							
2.1*	Carry out investigation into motivation and degree choice of women at Level 1. 2.1a - survey of students, together with focus group and interviews. 2.1b - Implement recommendations.	Data suggest that women enrolling at Level 1 are less likely than men to register for our main degree Q62.	Project report disseminated to department, faculty and university. Implementation of recommendations leads to 25% increase in women enrolling for Q62 by 2019.	2.1a July 2016  2.1b Sept 2017	2.1a July 2017  2.1.b Sept 2019	Scholarship Lead	Increase number of women enrolling on Computing and IT degree.
2.2	Raise awareness of gender stereotyping and unconscious bias with	SST and regional staff who market our courses have	Unconscious bias (Deconstructing Stereotypes) training	July 2016	July 2017	SAT Chair and SST Lead	New and potential women students receive

	Student Support Team, as well as with marketing staff and regional staff who advise potential students at enrolment. Provide documentation, information, advice and training to these staff members.	requested support in understanding gender issues affecting study choices.	sessions carried out with 75% of these staff members by July 2017 and all staff by July 2018. Documentation and guidance provided to all these staff members.				unbiased advice about their future studies and choices.
2.3*	Monitor the progression and pathway choices of students by gender, through the three levels of study (see also Action 1.2)	Data show that women less likely to complete degrees – need to understand where drop out happens and why	Data on progress is reviewed annually, and gender disparities are identified and reported to Department Management Team; actions to address these are considered.	October 2016	Annual	Director of Board of Studies and Director of Learning & Teaching	Gender disparities in attainment and progression identified and addressed
2.4	Explore ways to increase the uptake by women of modules that focus on computer programming.	Data shows women under represented on programming modules at Level 2 which may affect their employability after graduation.	Project scope and proposal defined by Dec 2016. Intervention is carried out in the sessions 2017-18 and 2018-19 and evaluation shows increased engagement.	Sept 2016	January 2019	SAT Chair, Director of Board of Studies	Increased numbers of women students engaging with programming modules.

2.5	Identify ways to provide networking opportunities on courses where there are very few women.	Certain modules have very low numbers of women – concern about potential isolation might be leading to drop out.	Regional events and online networking facilitated. Survey of participating students shows increase in satisfaction over period 2017 – 2019. Scope possible interventions by May 2017 Implementation starts July 2017. Evaluated by July 2018	Feb 2017	July 2018	SAT Student representative with Director of Board of Studies, Postgraduate Qualification Leads, and Module Chairs	Women on the PG taught programmes feel supported and are able to network with others.
2.6	Investigate development of 'conversion' postgraduate module for students with non-computing backgrounds, including women returners.	Current entry requirement for a relevant degree might potentially prevent some women (including women returners) from moving into computing from other subjects	Feasibility of proposal leads to application for resources and development of module. If feasible, module begins October 2018	January 2017	Oct 2018	SAT Chair with PG Programme Director	Conversion course for students with non-computing background attracts more women to PG study.
2.7*	Prepare alumni case studies of successful women PG students to add to the departmental website.	Percentage of women students is lower than the sector benchmark	Website features at least one new case study per year.	January 2017	Annual	SAT with Careers and Employability Team	Attract more women to the PG taught programmes.

		for part-time taught PG					
2.8	Investigate reasons for low recruitment of part-time female postgraduate research students. Survey and interview current part-time students (both male and female) to explore their experiences.	Data show low recruitment of women part time PG research students. See also Action 1.3	Survey and interviews complete by September 2017. Report of the investigation provided to Department Management Team Dec 2017.	January 2017	Dec 2017	Director of Research and Postgraduate Tutor	Barriers to part-time PhD study identified and potential solutions recommended.
2.9	Identify ways to increase support and networks for part-time research students.	Data show low recruitment of women part-time PG research students. See also Action 1.3	Review October 2017, amend and continue. Comparison of 2016 survey of part-time research students with 2017 survey indicates increased sense of involvement.	October 2016	Annual	PG Tutor, Research Director	Ensure that part-time PhD students feel part of the department community.
<b>3. Recruitment</b>							
3.1	Work with Faculty Staffing Team in future recruitment campaigns to promote the Department as supportive for women; for example emphasise flexible working	Lower proportion of female Central Academics at Lecturer grade suggests the department needs	Adverts are routinely scrutinised before going live to ensure women are being encouraged to apply (including mention of	Jan 2017	Jan 2018	HoD and Faculty Staffing Team	Increase percentage of female applicants for posts to average of 40%. Leads to long-

	and the high proportion of women at senior levels.	to recruit early career female staff to maintain and improve gender balance. Job adverts currently offer limited information about support for women.	flexible working and Athena SWAN). Begin discussions in January 2017 Implement strategy by January 2018				term increase in number of women lecturers and senior lecturers in the department.
3.2	Showcase the department's commitment to advancing the careers of women. (See also Action 2.7)	Lower proportion of female Central Academics at Lecturer grade suggests the department needs to recruit early career female staff to maintain and improve gender balance	Website features one new case study per year illustrating successful women in a range of career paths. Increase percentage of female applicants applying for posts to average of 40% by 2020.	January 2017	May 2020	SAT and Department Management Team	Leads to long-term increase in number of women lecturers and senior lecturers in the department.
3.3	Use 'women in computing' networks and social media to advertise jobs and actively encourage suitable women to apply.	Lower proportion of female Central Academics at Lecturer grade suggests the department needs to recruit early career female staff	Vacancies are routinely circulated to appropriate networks and suitable potential women candidates are directly approached. Increase	January 2017	May 2020	HoD and Faculty Staffing Team	Leads to long-term increase in number of women lecturers and senior lecturers in the department.

		to maintain and improve gender balance	percentage of female applicants applying for posts to average of 40% by 2020.				
3.4	Recruitment panels (for staff and PhD students) undertake unconscious bias (Deconstructing Stereotypes) training.	Lower proportion of female Central Academics at Lecturer grade suggests the department needs to recruit early career female staff to maintain and improve gender balance. (See also Action 2.8)	Unconscious bias (Deconstructing Stereotypes) training undertaken by 50% of recruiters by July 2017 and 80% by July 2018.	Nov 2016	July 2018	CDSA appraisers and Department Management Team	Department is confident that selection processes are fair and unbiased
<b>4. Career development and promotions</b>							
4.1*	Develop career progression support for Regional Academics.	Data on use of new promotion criteria indicate low confidence among regional lecturers.	75% of Regional academics consulted express satisfaction with career support.	Dec 2016	July 2018	HoD, Associate Dean (Regions) and CDSA appraisers	Regional Academics feel supported in progressing their careers and achieving promotions.
4.2	Monitor the appointment of staff to positions of responsibility, and ensure	New promotions criteria require evidence of	Department keeps records of appointments to	March 2017	Annual	HoD together with CDSA	All members of staff have opportunities for

	that women are offered appropriate leadership roles to assist with promotion (see also Action 1.3)	leadership experience	leadership roles, including the gender balance in these appointments.			appraisers	relevant career experience to support their promotion prospects.
4.3	Allocate time for regional academics to undertake research/scholarship activities.	No regional academics submitted in REF 2014 or RAE 2008. Scholarship outputs required for promotions	Regional staff produce research/scholarship outputs. Work plan 'actuals' reflect time that was available for this. Review progress and work plans annually starting in July 2017	March 2017	Annual	HoD, supported by CDSA appraisers	Regional staff members are enabled to develop successful promotion cases.
4.4	Follow up data on staff development needs, analyse these by gender (with additional data collection). Draw together lessons for future staff development for the department as a whole.	Data on staff development needs not routinely analysed or gender disaggregated at department level	Gender analysis of staff development needs collected, and lessons drawn and presented to SAT in each annual appraisal round.	March 2017	Annual	SAT Chair and HoD, together with CDSA appraisers	Identify staff development needs by gender, in order to provide appropriate staff development.
4.5	Monitor, through CDSA, uptake of leadership training and other development programmes by gender, and encourage	Data on uptake of leadership training or other development programmes not	Annual monitoring shows increasing uptake by women of leadership training. Review figures	March 2017	Annual	HoD together with CDSA appraisers	Promote uptake of leadership development opportunities by women.

	staff to attend, including gaining accreditation from HEA, OpenPAD, or its successor APPLAuD	routinely analysed or gender disaggregated at department level	annually in July				Staff are able to gain HEA or OpenPAD / APPLAuD accreditation as required.
4.6	Create opportunities for Research Associates to gain teaching experience within module teams and other tutoring.	Career progression for Research Associates into main grade lecturing posts requires teaching experience.	30% of PDRAs have been able to gain teaching experience by October 2018. Review progress annually	October 2017	Oct 2018	Research Director, Director of Teaching and HoD	Post docs gain teaching experience to support their career development and progression to lecturer posts.
4.7*	Provide mentoring, training and support for staff in understanding the new promotions criteria and preparing for promotion cases.	Initial data from use of new promotions criteria introduced in 2015 show gender disparity	All staff invited to attend training on the new promotions criteria. All staff preparing for promotion are offered mentoring. Training session in October 2016	Oct 2016	Feb 2017	HoD together with CDSA appraisers	Male and female staff are confident about new promotions criteria.
4.8	Support employability of women Computing and IT graduates by developing an	We are aware that women are in a minority in the IT	75% of participants in industry mentoring scheme pilot find it	January 2017	Dec 2018	SAT Chair, Director of Board of	Support the career progression of

	industry/alumni mentoring scheme.	sector and we could enhance employability potential of our women students through networking and mentoring.	useful. Resources secured to continue in 2018. Review January 2018			Studies, Postgraduate Qualification Leads, with Industrial Advisory Board	female UG and PGT students.
4.9*	Support PhD students, particularly women, to attend networking events at departmental, university and national level. Provide funding to facilitate this. Monitor and report this involvement, for both female and male students (see action 2.5).	We are aware that women are in a minority in the IT sector and we could enhance employability potential of our women students through networking and mentoring.	SAT review of internal and external networking indicates 50% of women PhD students participate in OU Women in STEM networking events and external events by 2018. Participation is disseminated in the Department to encourage others.	July 2016	Review annually in July	Director of Research, Postgraduate Tutor, PhD supervisors	Support the career progression of PhD students.
4.10*	Develop structured support for research grant applicants, including help for unsuccessful bidders.	Currently no formal processes within the department to support research grant applicants	All bidders have access to structured support. All reviews are saved to the AMS research platform. 50% of unsuccessful bids are resubmitted by Sept 2018.	October 2017	Ongoing	Research Director and Research Group Leaders	Staff members feel more supported and confident in research bidding.

5. Organisation and Culture							
5.1	Create, circulate and maintain a list of internal and external committee opportunities for department members. (See also Action 1.3)	Staff survey showed women less likely to nominate themselves for committees.	List of opportunities kept up-to-date and available to department staff on department website.	October 2016	Ongoing	SAT Chair and HoD	All staff are informed of and encouraged to take up opportunities for committee membership.
5.2*	Check for gender disparity in workload plan balance between teaching, admin and research. Discuss sharing of completed workload plans within the department to ensure transparency.	Staff consultation indicated concern about a lack of transparency and equity around workload plans	Annual analysis of workload plans scrutinised for any gender disparity. Consultation held with whole department on issue of workload plan sharing (either online or at Away Day).	May - June 2016	Annual	HoD, Deputy HoD and Department Management Team	Greater perception of transparency around workload within the department. Promote transparency and equity of workloads.
5.3*	Review and refresh information and case studies on the department website regularly (see also 3.2 and 2.7).	Gender balance on website and prospectus now achieved, but needs to be actively maintained	Achievements of female academics and students showcased on website.	Sept 2016	Annual	SAT and Department Management Team	Visibility of women's achievements in Computing and IT is increased.
5.4*	Amend photographs on the 'Research' page of the departmental and student	Women under represented on Research page of	Equal gender balance in imagery on all external facing	July 2016	Sept 2016	Research Director	Visibility of women, and women's

	registration websites to show a balance of women and men.	department website	websites.				achievements, in Computing and IT is increased.
<b>6. Flexibility and career breaks</b>							
6.1	Establish a buddy/mentor for each individual going on maternity/adoption leave, prior to the start of their leave.	University research indicated need for buddy/ mentor system	All maternity or adoption leave takers have a buddy allocated.	Sept 2016	May 2017	HoD, supported by CDSA appraisers	Keep department members engaged while on maternity/adoption leave.
6.2	Agree a pattern of Keeping-in-Touch days for periods of maternity/adoption leave.	University research recommended implementation of KIT policy within departments	All maternity or adoption leave takers have agreed Keeping-in-Touch days in place.	Sept 2016	May 2016	HoD, supported by appraisers	Keep department members engaged while on maternity/adoption leave.
6.3	Formalise entitlement to a defined study leave period after maternity leave to support a return to research. Offer a research mentor for women returning from maternity leave.	Previous good practice has benefitted women returning from maternity leave. This should be formalised to ensure future good practice.	Study leave entitlement secured for returners. Research mentor scheme introduced.	Sept 2016	May 2017	HoD and Faculty Staffing Team	Women returning from maternity leave are able to get back up to speed with their research.
6.4	Actively encourage and support new fathers (and same-sex partners of new	Low awareness of entitlements under new Shared	50% of new fathers (and same-sex partners of new	Sept 2016	Dec 2018	SAT and Department Office	All staff feel confident in taking their

	mothers) to take their statutory entitlement to parental leave, and to consider whether Shared Parental Leave would work for their family.	Parental Leave policy.	mothers) take parental leave by December 2018.			Manager	entitlement of parental leave, thus making parenting a less gendered barrier.
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