



Athena SWAN Bronze Department award application

**Name of University:** University of Exeter  
**Department:** Mathematics and Computer Science  
**Date of application:** April 2014  
**Date of University Bronze Athena SWAN award:** November 2011  
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*Athena SWAN **Bronze Department** awards recognise that in addition to University-wide policies the Department is working to promote gender equality and to address challenges particular to the discipline.*

*Not all institutions use the term 'Department' and there are many equivalent academic groupings with different names, sizes and compositions. The definition of a 'Department' for SWAN purposes can be found on the Athena SWAN website. If in doubt, contact the Athena SWAN Officer well in advance to check eligibility.*

*It is essential that the contact person for the application is based in the Department.*

### Sections to be included

*At the end of each section state the number of words used. Click [here](#) for additional guidance on completing the template.*

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## Abbreviations

ACM	Assistant College Manager
AP	Action Plan; AP1.1 refers to Point 1.1 on the Action Plan
AS	Athena SWAN
ASPIRE	Accrediting Staff Professionalism in Research-Led Education
ASWG	Athena Swan Working Group
CEG	College Executive Group
CEMPS	College of Engineering, Mathematics and Physical Sciences
CS	Computer Science
CLES	College of Life and Environmental Sciences
CMG	College Management Group
DoE	Director of Education
DoR	Director of Research
ECR	Early Career Researcher
ECN	Early Career Network
E&D	Equality and Diversity
EMS	Exeter Mathematics School
GEG	Gender Equality Group
HoD	Head of Department
HR	Human Resources
HRBP	Human Resources Business Partner
ITMB	IT Management for Business
JUST	Journal of Undergraduate Science and Technology (online peer reviewed journal)
MACE	Module and Course Evaluation
MCS	Maths and Computer Science
MCSASWG	Maths and Computer Science Athena SWAN Working Group
MyPGR	An online facility for the tracking of postgraduate research (PGR) student progress.
PDP	Personal Development Planning
PDR	Performance Development Review
PGR	Post Graduate Researcher
PGT	Post Graduate Taught
REF	Research Excellence Framework
RKT	Research and Knowledge Transfer – provides professional support for researchers.
RKTEG	Research and Knowledge Transfer Executive Group
STEMM	Science Technology, Engineering, Mathematics and Medicine
SWARM	Staff Workload Allocation and Resource Management
UG	Undergraduate
UofE	University of Exeter
VCEG	Vice Chancellor's Executive Group

### 1. Letter of endorsement from the Head of Department: maximum 500 words

*An accompanying letter of endorsement from the head of Department should explain how the SWAN action plan and activities in the Department contribute to the overall Department strategy and academic mission. The letter is an opportunity for the Head of Department to confirm their support for the application and to endorse and commend any women and STEMM activities that have made a significant contribution to the achievement of the Departmental mission.*



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Head of Mathematics and Computer Science:

Professor Mark P Baldwin PhD FRMetS CCM

28 April 2014

Ms Sarah Dickinson  
Equality Challenge Unit  
7<sup>th</sup> Floor Queen's House  
55/56 Lincoln's Inn Fields  
London  
WX2A 3LJ

Dear Ms Dickinson,

I am writing as the Head of Mathematics and Computer Science to offer my fullest endorsement for our application for a Bronze Award. My Department's mission is to maintain world-class teaching and research whilst working to achieve a world-class working environment. Our commitment to the Athena SWAN Charter is a key component of that mission. The detailed Action Plan (see Appendix) has 65 specific items across nine objectives.

We are a relatively young combined Department, having been formed in 2010 through a forward-thinking restructuring of Colleges and Schools. Since that time we have progressed from having 1 female academic to 6 today; 27% of recent appointments have been women. The move to a larger structure has enabled us to reflect on our existing practices and provided an opportunity for investment. We have reflected on our previous processes and through the self-assessment team, have looked at the data on student and staff by gender and where there may be barriers to women reaching their full potential at all stages of the pipeline.

Examples include the Department's flexible support for academics, which has helped Dr Zena Wood to progress through the pipeline to Senior Lecturer in Computer Science, having previously studied for her BSc (2006) and PhD (2011) and worked as an Early Career Researcher at Exeter. We have fully supported her choice of working part-time and planned move from the Education and Scholarship to the Education and Research career path.

Profiling and promoting role models at every stage of the pipeline to inspire others, we have created an environment that nurtures all of our students: second-year mathematics student Emily Burton won the National Student Challenge 2013 to be crowned the UK's best and brightest University student. Emily beat more than 4,000 competitors from 149 UK universities to emerge as the single winner of the competition.

I am fully committed to promoting gender equality at all levels. This starts with our undergraduate recruitment strategy which places a strong emphasis on outreach activities aimed at attracting enthusiastic, high-achieving students. This strategy places a strong emphasis on outreach activities through which we have been very successful at maintaining the percentage of female

undergraduates 40% consistent with the benchmark). In recruiting academic staff, we encourage applicants to consider the supportive working environment that we offer as well as the flexible family support that the University provides. I believe that flexible working arrangements should be an option for all staff, allowing them to manage family responsibilities. For example, we have changed the timing of College management meetings to make it easier for those with young children to attend.

This is an opportune time to put together our application for an Athena SWAN Bronze Award. The process has brought together a very committed and enthusiastic group of individuals on our self-assessment team. The self-assessment process has provided an excellent opportunity to reflect on our upward trajectory, and has highlighted several areas where we could do much better.

Yours sincerely,

A handwritten signature in blue ink that reads "Mark P. Baldwin". The signature is written in a cursive, flowing style.

Professor Mark P Baldwin

Word count: 499 words

## 2. The self-assessment process: maximum 1000 words

Describe the self-assessment process. This should include:

*(a) A description of the self assessment team: members' roles (both within the Department and as part of the team) and their experiences of work-life balance*

*(b) An account of the self assessment process: details of the self assessment team meetings, including any consultation with staff or individuals outside of the University, and how these have fed into the submission*

*(c) Plans for the future of the self-assessment team, such as how often the team will continue to meet, any reporting mechanisms and in particular how the self-assessment team intends to monitor implementation of the action plan.*

### **(a) description of the self-assessment team members' roles**

The Athena SWAN Working Group for Maths and Computer Science (MCSASWG) was established in March 2012 after discussions within the College and Department. It includes representation from staff and researchers from all career paths within the Department together with undergraduate and postgraduate students. The team members bring a variety of experiences including flexible working, caring responsibilities and dual-career families.

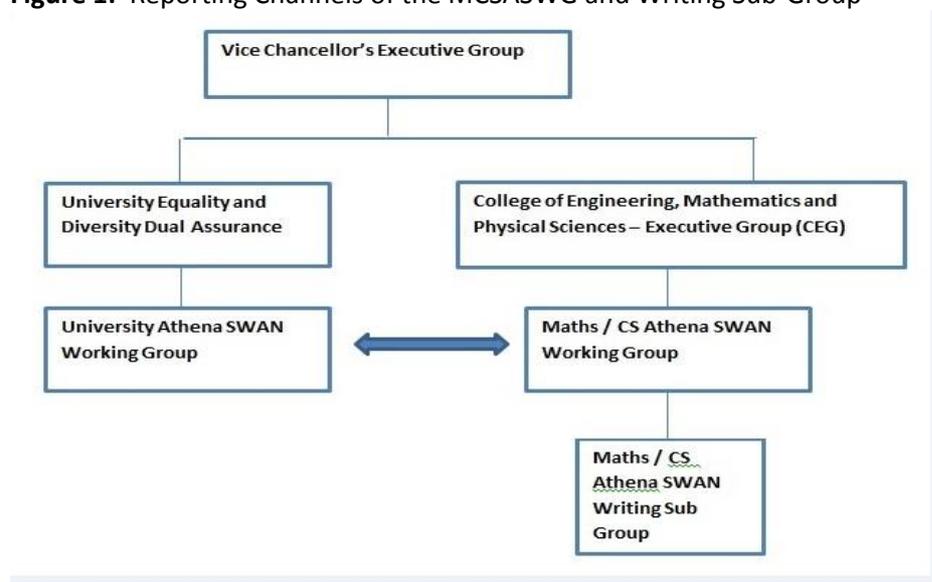
Mark Baldwin, Head of Mathematics and Computer Science (since 1 February 2014)	Mark is Head of Mathematics and Computer Science providing strategic leadership and ensuring equality and diversity procedures are implemented, actively managed and monitored. Mark is married with a son at University and caring responsibilities.
Peter Challenor, Professor of Statistics	Peter leads on Equality and Diversity for MCS (appointed June 2013) and chairs the MCSASWG. He is a member of both the College and University ASWG. Peter is single without children or living parents.
Maria Edwards, Athena SWAN Project Manager	Maria is Project Manager for CEMPS supporting the implementation of the action plans. Maria works part time with caring responsibilities.
Andrew Gilbert, Professor Mathematical Physics	Andrew is Director of Postgraduate Researchers. Andrew's wife is a full-time academic and they have three children at secondary school, one of whom is visually impaired.
Iva Kavcic, Associate Research Fellow	Iva is involved in setting up the Early Career Network on the Streatham Campus. Iva is single and provides support to her father.
Ed Keedwell, Senior Lecturer in Computer Science	Ed is a Senior Lecturer in Computer Science and a tutor for our MSc students, providing pastoral care and advice as necessary and admissions tutor for computer science. Ed is married and has two young daughters
Stephanie Lloyd, PhD student	Stephanie is a PhD student in Mathematics at the Penryn Campus.
Ailsa McGregor, Assistant Director, HR.	Part-time member of the group. Ailsa has been an Athena SWAN panel member and is a member of the ECU Athena SWAN Medical and Dental Advisory Group and supports ECU on other discrete projects. Ailsa is married and has carer responsibilities.

Markus Mueller, Lecturer in Applied Mathematics	Markus is involved in the development of the "Mathematics and the Environment" programmes on the Penryn Campus.
Indrani Roy, Associate Research Fellow	Indrani is currently working on a research project titled 'SAPRISE' involving several UK and Indian organisations. Indrani is married with two children.
Stuart Townley, Professor of Applied Mathematics	Stuart is professor at the Penryn Campus Environment and Sustainability Institute. Stuart is married with two sons.
Louis Tsiattalou, Undergraduate	Louis is Subject Chair for Maths and Computer Science ensuring that communication between students and staff is constructive and healthy. Louis lives in Exeter with three housemates.
Natalie Turner , Project Officer	Natalie leads on a number of different projects. She is the College Lead Officer for Equality & Diversity.
Beth Wingate, Professor of Applied Mathematics	Beth has many years of experience working to retain women in science. She was presented with an Outstanding Mentoring Award from the Los Alamos National Laboratory's Women's Diversity Group. Beth's partner is a Professor of Mathematics.
Zena Wood, Senior Lecturer in Computer Science	Zena is currently seconded part-time to an EU FP7 project as a Senior Research Fellow. She is part of a team to deliver the outreach strategy for Exeter Mathematics School. Zena lives between two locations due to her partner working away from Exeter.

**(b) an account of the self-assessment process**

The MCSASWG has the remit of examining and recommending actions for improving the functioning of the Department on the full range of Athena SWAN Charter principles. The MCSASWG meets monthly and reports to the College Executive Group (CEG) and College of Engineering, Mathematics and Physical Sciences AS Working Group (CEMPSASWG), which in turn reports to the University Athena SWAN Working Group (Figure 1). The chair sits on both the College and University ASWG. This ensures that best practice is shared as widely as possible (AP6.3,AP9.3), as well as to raise issues and collect data at the appropriate level of management.

**Figure 1:** Reporting Channels of the MCSASWG and Writing Sub-Group



The MCSASWG was chaired by Dr Catherine Luke (an early career postdoctoral researcher) for the first 15 months until she took maternity leave, after which Prof Peter Challenor has taken on the chair. A subsection of the MSCASWG was appointed as a “writing group” to draft this application and then to consult with the wider group. The students have been consulted through an undergraduate survey carried out by a PhD student (see page 30) and the Student Staff Liaison Committee (SSLC) with the Chair of the SSLC attending all MCSASWG meetings. Wider staff consultation comes from Department meetings where Athena SWAN is a standing item (AP9.1); the Early Career Network consultations and from specially organised staff focus groups (AP1.3). These have recommended the following actions:

- HR to run a general promotion workshop for staff in MCS. This is planned for June 2014. (AP3.3)
- Develop Mentoring Awards. These are due to implemented July 2014. (AP3.7)
- Continue to improve the gender balance of invited speakers (Female speakers averaged 16% last three years, with an increase to 20% (Spring Term 2014) (AP6.9).

### **(c) Plans for the future of the self-assessment team**

The MCSASWG is an established and embedded Department Committee which will continue to meet monthly to ensure the active development and implementation of the action plan; respond to focus group recommendations (AP1.3) and receive regular updates to specific datasets. New members will be recruited as appropriate to bring fresh and relevant knowledge to identify future actions and initiatives.

Word count: 912 words

### **3. A picture of the Department: maximum 2000 words**

*(a) Provide a pen-picture of the Department to set the context for the application, outlining in particular any significant and relevant features.*

*(b) Provide data for the past three years (where possible with clearly labelled graphical illustrations) on the following with commentary on their significance and how they have affected action planning.*

Our Department sits within the College of Engineering, Mathematics and Physical Sciences (CEMPS) which was formed in 2010. This is one of three large STEM/M Colleges within the University. Our Department is predominantly based on the Streatham Campus (Exeter) with a small staff presence in Penryn (Cornwall). Because of the relatively small size of Computer Science in MCS, in terms of both staff and students, we have chosen not to separate Computer Science but to include them in a single MCS submission using predominantly benchmarks from Mathematics, which are higher.

The proportion of women has risen over the last five years (6% 2008/09 to 18% 2012/13). 27% of staff recruited in 2012/13 were female, including our first female full and associate professors. We have 530 UG (205, 39% female), 19 PGT (8, 42% female) and 59 PGR (15, 25% female). The Department runs a portfolio of single honours UG programmes in Mathematics (about 120 FTE entry per year) and a range of combined UG programmes with Mathematics and Computer Science components (about 50 FTE per year). A single honours programme in Computer Science was launched in 2013, initially with 20 FTE students.

The Head of Department (HoD) leads on numerous strategic and operational issues and takes an advocacy role for the Department. Each member of staff belongs to a group with an Academic Lead who provides mentoring and coaching, as well as undertaking annual appraisals. An advantage of this is a relatively flat management structure; all academics are no more than a couple of steps away from the senior management.

#### **Data Collection**

We have access to a 5-year data repository which allows us to analyse trends and the impact of implemented changes (AP1.1). We have highlighted where data are not available and the measures being taken to ensure we have such data in future (AP1.3).

Quantitative data is coordinated by central HR and provided to MCSASWG for analysis. Each data set, for both staff and students, is categorized by Department and gender. For staff, data sets are sub-divided by career path and grade.

Qualitative data includes that gathered from open-invitation focus groups organised by MCSASWG to characterise individual experiences and responses to implemented changes (AP1.3).

Our benchmarking data have been taken from 'The Equality in Higher Education: Statistical Report' 2013, published by ECU and from the London Mathematical Society "Advancing Women in Mathematics: Good Practice in UK University Departments" report 2013.

***Numbers of males and females on access or foundation courses – comment on the data and describe any initiatives taken to attract women to the courses.***

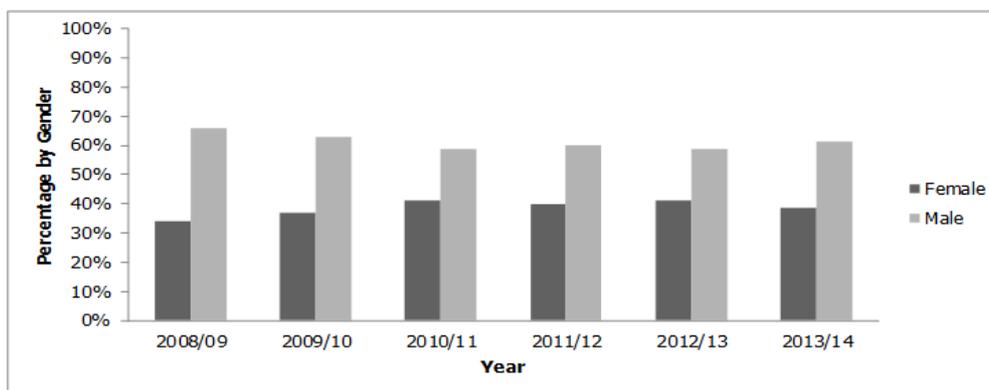
The INTO UofE partnership provides academic and English language preparation for international students before they enrol into our undergraduate and postgraduate courses.

Foundation Mathematics Programmes have resulted in 3 students progressing to our programmes in

2012 (1 female) and 16 students in 2013 (6 female) which reflect the success of our increased use of role models and ambassadors (AP2.1). In 2013/14 there are 35 students on the Foundation Mathematics Programme (9 female) and we are committed to working in partnership with INTO to continue growing these numbers (AP2.13).

**Undergraduate male and female numbers – full and part-time – comment on the female:male ratio compared with the national picture for the discipline. Describe any initiatives taken to address any imbalance and the impact to date. Comment upon any plans for the future.**

We offer a range of three and four year UG degree programmes at Streatham and we are recruiting the first cohort to a BSc Maths and the Environment at Penryn for 2014. Our degrees are available on a part-time basis, with less than six students in recent years; the number of applicants for part time has decreased. The number of female students steadily increased between 2008/09 and 2010/12 and has remained consistent in subsequent years. The average percentage for the last 4 years is consistent with the benchmark (40% female).



**Data Set 1:** The percentage of registered undergraduate students by gender over time.

Undergraduate					
	Year	Female	Male	Total	% Female
All students	2008/09	188	366	554	34%
	2009/10	171	292	463	37%
	2010/11	207	298	505	41%
	2011/12	207	311	518	40%
	2012/13	206	296	502	41%
	2013/14	207	329	536	39%
Full Time	2008/09	184	349	533	34%
	2009/10	166	280	445	37%
	2010/11	202	287	488	41%
	2011/12	206	310	515	40%
	2012/13	206	294	500	41%
	2013/14	205	325	530	39%
Part Time	2008/09	0	0	0	0%
	2009/10	0	0	0	0%
	2010/11	2	1	3	60%
	2011/12	2	1	3	60%
	2012/13	1	2	3	33%
	2013/14	2	4	6	36%

In order to maintain and increase these numbers we have:

- (1) updated our online information for prospective students (AP2.1).
- (2) monitored undergraduate numbers by gender (AP1.1)
- (3) collected student feedback on gender issues (AP2.5).

We are engaged in a wide range of outreach activities (AP8.1 - 8.3) as detailed on pages 35-37.

We encourage UG students to participate in national competitions, 1 of our female second-year Maths students Emily Barton saw off competition from more than 4,000 students from 149 universities nationwide to win the National Student Challenge 2013 and agreed to be a role model and ambassador (AP2.1 and AP9.2) as part of our celebrations for International Women's Day 2014:



Emily's advice is: "Sometimes just saying 'don't be scared' can help someone face their fears or 'be yourself' can provide someone with a heap of confidence so that they can go on to achieve their goals. The encouragement and support of carers, teachers, parents and countless other roles promotes positive change in the lives of many and I believe this is truly what inspires change."

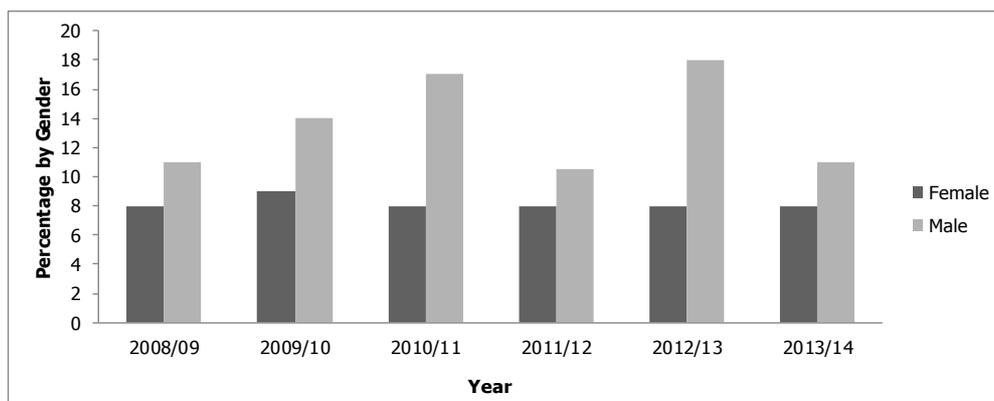
We also run 4 year undergraduate degrees MMath and MSci. The figures for these show a greater gender imbalance on the MMath programme (24% female), whilst for our MSci programmes the ratio is 60% female. The proportion of female students overall has been steadily rising 38% (2010/11) to 47% (2011/12), whilst noting that the total numbers are small. The MSci programmes were introduced to attract more female students and a new MSci in Geophysical and Astrophysical Fluid Dynamics will be launched in 2014/15.

***Postgraduate male and female numbers completing taught courses – full and part-time – comment on the female:male ratio compared with the national picture for the Department. Describe any initiatives taken to address any imbalance and the effect to date. Comment upon any plans for the future.***

We offer MSc degrees in Financial Mathematics; Advanced Mathematics and Information Technology Management for Business. MSc Financial Mathematics attracts 15-20 (primarily international) students per year. Most students find employment in the financial sector of their home country, with one or two per year moving on to PhD study. This is a very small part of the progression of students to PGR level, which is dominated by the UG MMath and MSci degrees discussed above.

The proportion of female PGT students varies between 31% and 43%, (37.6% Benchmark). We promote these courses to our UG students with the use of female ambassadors. We recognise the

importance of monitoring our shop front, namely prospectuses and web pages (AP2.1, AP6.1), and ensure training for PGT Admissions Tutors in both Equality and Diversity and Recruitment and Selection (AP6.10, AP4.1,).

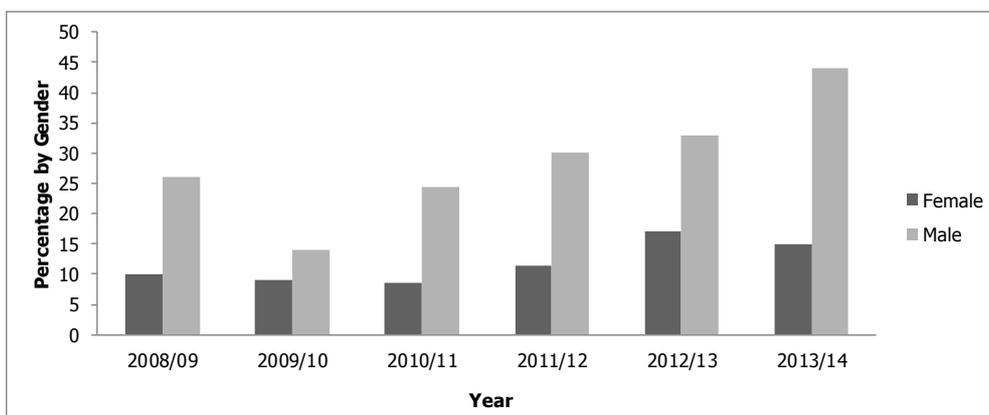


**Data Set 2:** The percentage of registered postgraduate taught students by gender over time.

Postgraduate Taught					
	Year	Female	Male	Total	% Female
All students	2008/09	8	11	19	42%
	2009/10	9	14	23	39%
	2010/11	8	17	25	32%
	2011/12	8	11	19	43%
	2012/13	8	18	26	31%
	2013/14	8	11	19	42%
Full Time	2008/09	8	11	19	42%
	2009/10	9	14	23	39%
	2010/11	7	17	24	29%
	2011/12	8	11	19	43%
	2012/13	8	18	26	31%
	2013/14	8	10	18	44%
Part Time	2008/09	0	0	0	0%
	2009/10	0	0	0	0%
	2010/11	1	0	1	100%
	2011/12	0	0	0	0%
	2012/13	0	0	0	0%
	2013/14	0	1	1	0%

**Postgraduate male and female numbers on research degrees – full and part-time – comment on the female:male ratio compared with the national picture for the Department. Describe any initiatives taken to address any imbalance and the effect to date. Comment upon any plans for the future.**

We offer doctoral degrees in Mathematics and in Computer Science (as well as MPhil and some MbyRes degrees, with very low numbers). The number of PGR students is 59 (2013/14). Numbers fluctuate, our 2012/13 figures of 34% exceeded national figures of 29.9% (Benchmark) whilst our 2013/14 figures were lower at 25%.



**Data Set 3:** The percentage of registered postgraduate research students by gender over time.

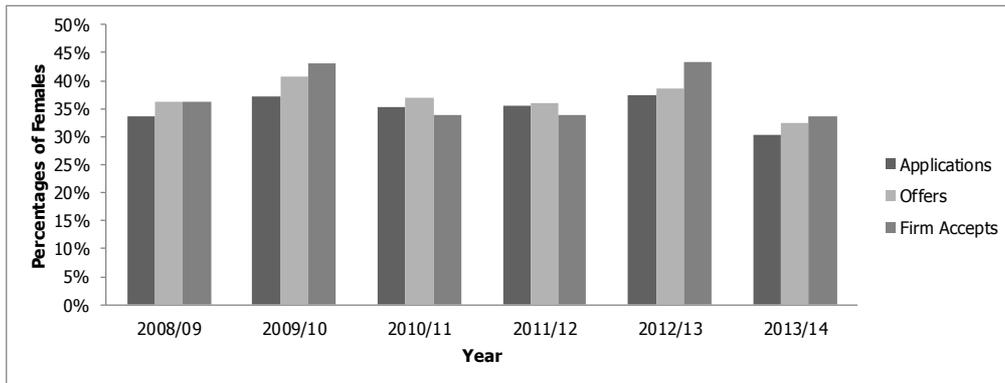
Postgraduate Research					
	Year	Female	Male	Total	% Female
All students	2008/09	10	26	36	28%
	2009/10	9	14	23	39%
	2010/11	9	25	33	26%
	2011/12	12	30	42	28%
	2012/13	17	33	50	34%
	2013/14	15	44	59	25%
Full Time	2008/09	10	25	35	29%
	2009/10	9	14	23	39%
	2010/11	9	25	34	26%
	2011/12	12	29	41	28%
	2012/13	17	29	46	37%
	2013/14	15	38	53	28%
Part Time	2008/09	0	1	1	0%
	2009/10	0	0	0	0%
	2010/11	0	0	0	0%
	2011/12	0	1	1	0%
	2012/13	0	4	4	0%
	2013/14	0	6	6	0%

There is clear evidence of a drop-off in the proportion of female students between UG 39% (2013/14) and PGR 28% (2013/14) level study at Exeter. Given this, we continue to work to attract UG students to PhD level study by:

- Participating in a university-wide review of PhD recruitment to ensure there is no unintentional bias (AP2.2)
- Improved training for PGR supervisors and the option of female mentors (AP2.3, AP2.4, AP2.6,)
- Annually holding a PGR Research Conference and a Postgraduate Research Showcase (AP3.5)
- Improving the gender balance of internal and external speakers to provide role models for Inspiring Science lecture series, colloquia and seminars (AP6.9)

**Ratio of course applications to offers and acceptances by gender for undergraduate, postgraduate taught and postgraduate research degrees** – comment on the differences between male and female application and success rates and describe any initiatives taken to address any imbalance and their effect to date. Comment upon any plans for the future.

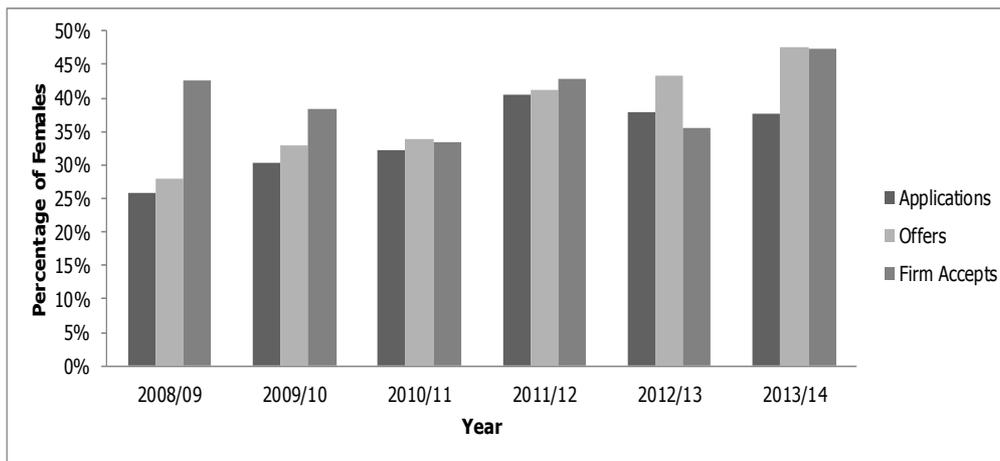
**Undergraduate:** Applications from female students steadily increased between 2008/9 and 2012/13, with a slight drop in 2013/14. We have increased offers to female students 87% (2009/10) to 94% (2013/14) and they are more likely to accept 24% (2008/09) to 33% (2012/13) with a slight drop 27% (2013/14). We examined the decliners' survey for 2013/14 in detail and found no significant trends to explain the decline in acceptances in 2013/14. We continue to monitor these data (AP1.1).



**Data Set 4:** The percentage of undergraduate females who applied, who received offers, and who were accepted, by year.

		Applications	Offers	Firm Accepts
2008/09	Female	404	393	93
	Male	794	694	164
	Total	1197	1087	257
	% Female	34%	36%	36%
2009/10	Female	480	419	113
	Male	811	613	149
	Total	1291	1032	262
	% Female	37%	41%	43%
2010/11	Female	439	402	107
	Male	802	689	208
	Total	1241	1091	314
	% Female	35%	37%	34%
2011/12	Female	423	377	96
	Male	771	672	189
	Total	1194	1049	285
	% Female	35%	36%	34%
2012/13	Female	308	287	93
	Male	512	458	122
	Total	820	744	215
	% Female	38%	39%	43%
2013/14	Female	440	412	110
	Male	1013	862	217
	Total	1452	1275	327
	% Female	30%	32%	34%

**Postgraduate Taught:** The proportion of PGT applicants increased significantly 26% (2008/09) to 41% (2011/12) levelling out at 38% in subsequent years. The percentage of offers to female students has steadily increased 28% (2008/09) to 48% (2013/14). Acceptances by women have risen to 47% in 2013/14.

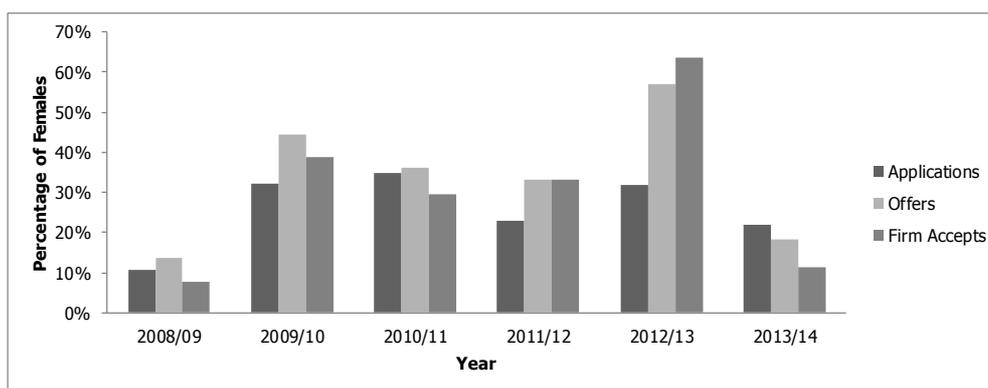


**Data Set 5:** The percentage of postgraduate taught females who applied, who received offers, and who were accepted, by year.

		Applications	Offers	Firm Accepts
2008/09	Female	44	27	9
	Male	126	70	12
	Total	170	97	20
	% Female	26%	28%	43%
2009/10	Female	54	36	7
	Male	124	74	11
	Total	177	110	17
	% Female	30%	33%	38%
2010/11	Female	86	47	9
	Male	180	92	18
	Total	265	139	27
	% Female	32%	34%	33%
2011/12	Female	163	71	13
	Male	239	101	18
	Total	402	172	31
	% Female	41%	41%	43%
2012/13	Female	175	118	14
	Male	288	155	26
	Total	463	273	40
	% Female	38%	43%	35%
2013/14	Female	164	109	15
	Male	271	121	17
	Total	435	230	32
	% Female	38%	48%	47%

**Postgraduate Research:** PGR applications have risen to 102 (2013/14). The proportion of applications from females has reduced to 22% (2013/14) which is low. This trend is replicated in offers and acceptances. In terms of actions we are:

- (1) Ensuring training of staff involved with admissions and supervision (AP6.10, AP2.3, AP2.4).
- (2) Supporting all PGR students, through the provision of advice and support services (AP2.7, AP2.8, AP2.11) and Access to Training, Development and Employability activities (AP2.9).
- (3) Ensuring female role models/ambassadors are present at student recruitment events (AP2.1).
- (4) Encouraging PGR students to consider careers in research and academia through links with the Early Career Network (AP3.9).
- (5) Monitoring numbers by gender (AP1.1).

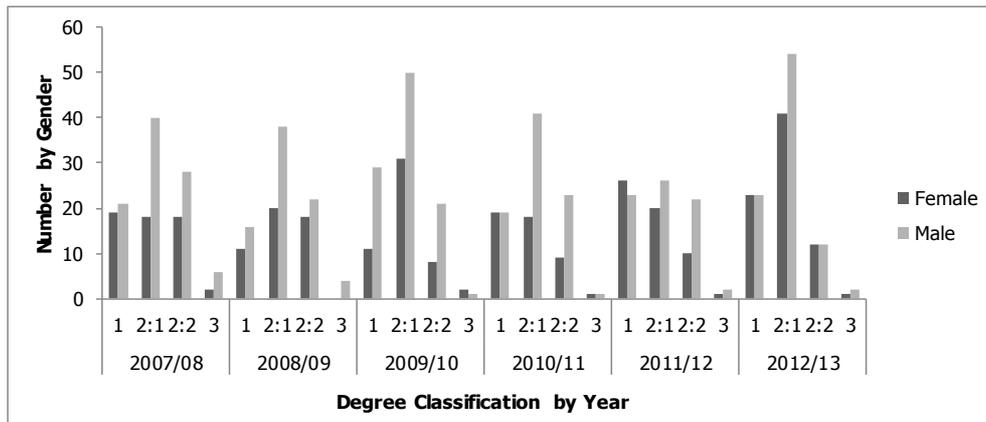


**Data Set 6:** The percentage of postgraduate research females who applied, who received offers, and who were accepted, by year.

		Applications	Offers	Firm Accepts
2008/09	Female	7	4	1
	Male	58	25	12
	Total	65	29	13
	% Female	11%	14%	8%
2009/10	Female	43	16	7
	Male	90	20	11
	Total	132	36	18
	% Female	32%	44%	39%
2010/11	Female	22	9	5
	Male	41	16	12
	Total	63	25	17
	% Female	35%	36%	29%
2011/12	Female	17	8	7
	Male	55	16	14
	Total	72	24	21
	% Female	23%	33%	33%
2012/13	Female	23	12	7
	Male	49	9	4
	Total	72	21	11
	% Female	32%	57%	64%
2013/14	Female	23	7	2
	Male	80	32	16
	Total	102	39	18
	% Female	22%	18%	11%

**Degree classification by gender** – comment on any differences in degree attainment between males and females and describe what actions are being taken to address any imbalance.

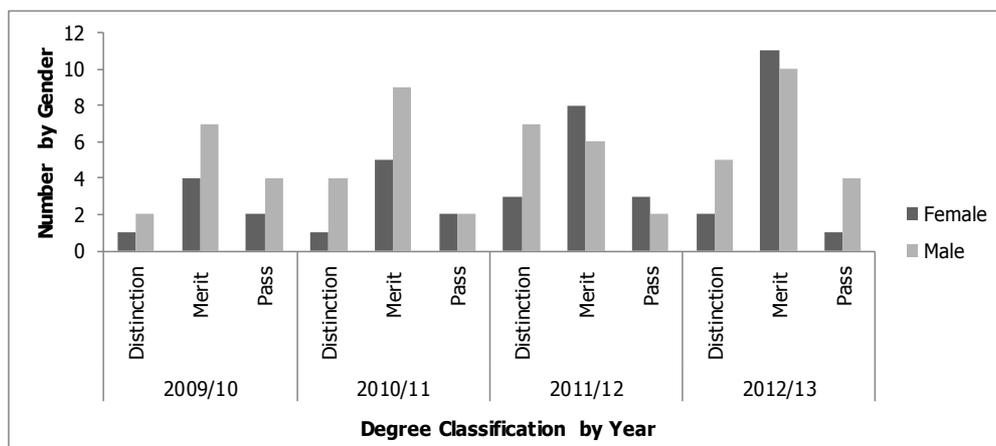
Our female and male students are achieving equally in degree classification in line with the benchmark, which noted that degree achievement by gender was well matched nationally. Our concern as indicated earlier is that this does not translate into PG applications.



**Data Set 7:** The undergraduate degree classification over time.

		Female	Male	Total	% Female
2007/08	1	19	21	40	48%
	2:1	18	40	58	31%
	2:2	18	28	46	39%
	3	2	6	8	25%
	Total	57	95	152	38%
2008/09	1	11	16	27	41%
	2:1	20	38	58	34%
	2:2	18	22	40	45%
	3	0	4	4	0%
	Total	49	80	129	38%
2009/10	1	11	29	40	28%
	2:1	31	50	81	38%
	2:2	8	21	29	28%
	3	2	1	3	67%
	Total	52	101	153	34%
2010/11	1	19	19	38	50%
	2:1	18	41	59	31%
	2:2	9	23	32	28%
	3	1	1	2	50%
	Total	47	84	131	36%
2011/12	1	26	23	49	53%
	2:1	20	26	46	43%
	2:2	10	22	32	31%
	3	1	2	3	33%
	Total	57	73	130	44%
2012/13	1	23	23	46	50%
	2:1	41	54	95	43%
	2:2	12	12	24	50%
	3	1	2	3	33%
	Total	77	91	168	46%

39% of female PGT students achieved a Merit or higher compared with 45% of men (2012/13). The number of students is small and we continue to monitor these figures (AP1.1) and review qualitative data from our student surveys (AP1.4).



**Data Set 8:** The postgraduate degree classification over time.

		Female	Male	Total	% Female
2009/10	Distinction	1	2	3	33%
	Merit	4	7	11	36%
	Pass	2	4	6	33%
	Total	7	13	20	35%
2010/11	Distinction	1	4	5	20%
	Merit	5	9	14	36%
	Pass	2	2	4	50%
	Total	8	15	23	35%
2011/12	Distinction	3	7	10	30%
	Merit	8	6	14	57%
	Pass	3	2	5	60%
	Total	14	15	29	48%
2012/13	Distinction	2	5	7	29%
	Merit	11	10	21	52%
	Pass	1	4	5	20%
	Total	14	19	33	42%

### Staff data

Unless otherwise stated, national comparisons are taken from the “Equality in Higher Education: Statistical Report 2013: Part 1: Staff”.

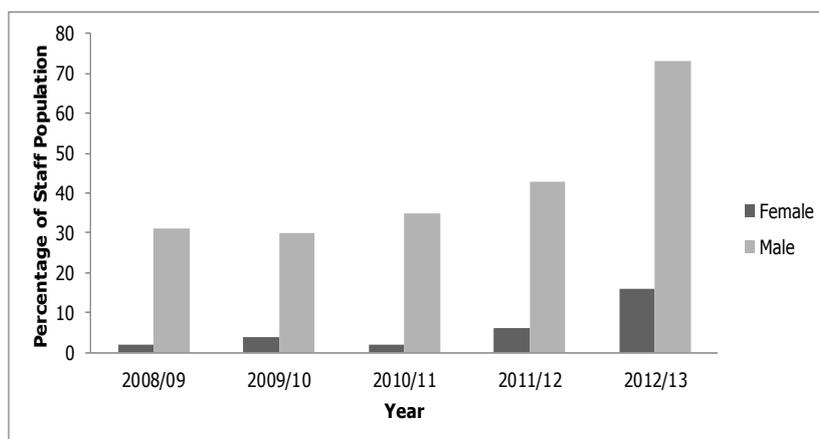
The University has three equal career paths shown in Figure 2. There are clear, published criteria on the requirements for promotion from early career to professor for each of the career paths. It is also possible to move between the career paths. Measures of achievement for promotion criteria are pro-rata’d for part time staff.

**Figure 2: Career paths, grades and titles**

	Research	Education and Scholarship	Education and Research
<b>Grade E</b>	Associate Research Fellow	Associate Lecturer	
<b>Grade F</b>	Research Fellow	Lecturer	Lecturer
<b>Grade G</b>	Senior Research Fellow	Senior Lecturer	Senior Lecturer
<b>Grade H</b>	Associate Professor	Associate Professor	Associate Professor
<b>Professor</b>	Professor	Professor	Professor

**Female:male ratio of academic staff and research staff** – researcher, lecturer, senior lecturer, reader, professor (or equivalent). Comment on any differences in numbers between males and females and say what action is being taken to address any underrepresentation at particular grades/levels

The proportion of women staff has risen from 6% (2008/9) to 18% (2012/13) below benchmark (25.5%). We are pleased to see that 27% of staff recruited in 2012/13 were female, including our first female Full and Associate Professors. This improvement is linked to the increased number of applications received from females combined with our approach to ensuring fair, transparent and competent staff appointment procedures (AP 4.1,AP4.2,AP4.3).

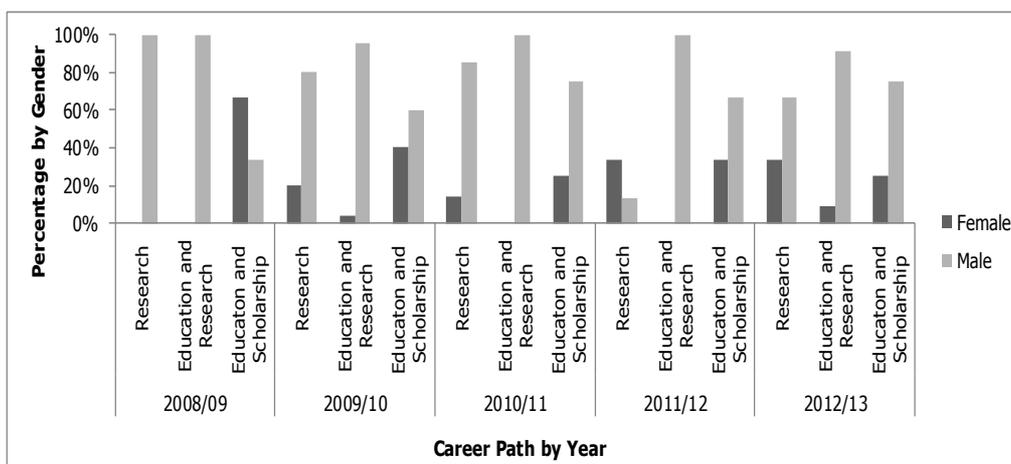


**Data Set 9:** Number of academic and research staff over time.

Number of academic and research staff over time				
	Female	Male	Total	% Female
2008/09	2	31	33	6%
2009/10	4	30	34	12%
2010/11	2	35	37	5%
2011/12	6	43	49	12%
2012/13	16	73	89	18%

Number of part-time academic and research staff over time				
	Female	Male	Total	% Female
2008/09	1	2	3	33%
2009/10	2	2	4	50%
2010/11	1	1	2	50%
2011/12	1	1	2	50%
2012/13	0	6	6	0%

Data Set 10 shows improvements across two of the three career paths: Research 0% (2008/9) to 33% (2012/13) and Education and Research 0% (2008/9) to 31% (2012/13). All posts will be recruited through e-recruitment from July 2014 (AP4.2).



**Data Set 10:** Number of staff by career path

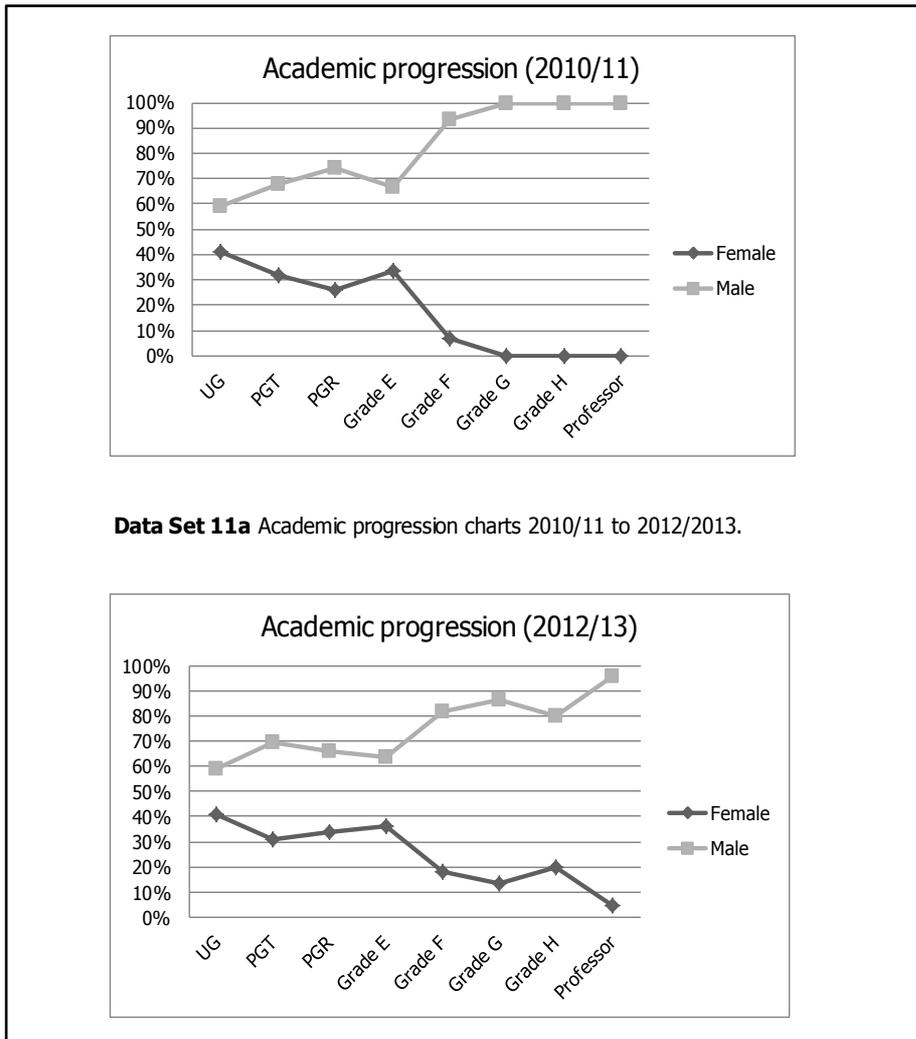
Year	Career Path	Female	Male	Total	% of population who are women	% of women
2008/09	Research	0	6	6	0%	0%
	Education and Research	0	24	24	0%	0%
	Educaton and Scholarship	2	1	3	67%	100%
	Total	2	31	33	6%	100%
2009/10	Research	1	4	5	20%	25%
	Education and Research	1	23	24	4%	25%
	Educaton and Scholarship	2	3	5	40%	50%
	Total	4	30	34	12%	100%
2010/11	Research	1	6	7	14%	50%
	Education and Research	0	26	26	0%	0%
	Educaton and Scholarship	1	3	4	25%	50%
	Total	2	35	37	5%	100%
2011/12	Research	5	10	15	33%	83%
	Education and Research	0	31	31	0%	0%
	Educaton and Scholarship	1	2	3	33%	17%
	Total	6	43	49	12%	100%
2012/13	Research	10	20	30	33%	63%
	Education and Research	5	50	55	9%	31%
	Educaton and Scholarship	1	3	4	25%	6%
	Total	16	73	89	18%	100%

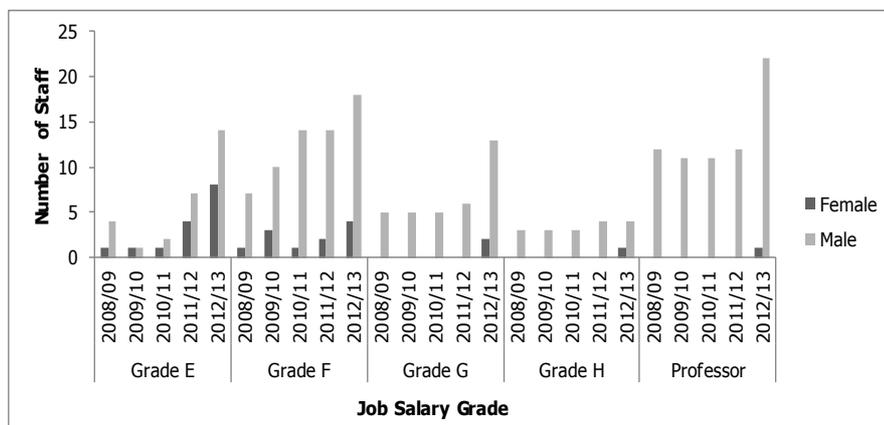
The increase in recruitment is seen in the academic progression pipeline shown in Data Sets 11a and 11b. From UG to Grade E (post-doc) between 30 and 40% are female; above Grade E the numbers drop to less than 20% for the higher grades. We have focused our actions on two “leakages” from UG to PG (as described) earlier and from ECR to full academic role (see support for students on pp30-32).

In May 2013, the University conducted two surveys: the Code of Good Practice for the Employment of Career Research Staff (AP1.7) and for the HR Excellence in Research Award (AP5.3). Key findings included:

- The majority of respondents reported having seen details of their current post openly advertised.
- 66% of respondents said they had received an appraisal.
- Programmes like “Career Explorer” delivered by the Researcher Development Team, has proved highly successful with 78% of respondents feeling encouraged to engage in personal and career development.

These results indicate an improving picture at the UofE which reflects the increase in focus on ECR and increased provision of learning and development. (AP6.5, AP6.6, AP6.7).



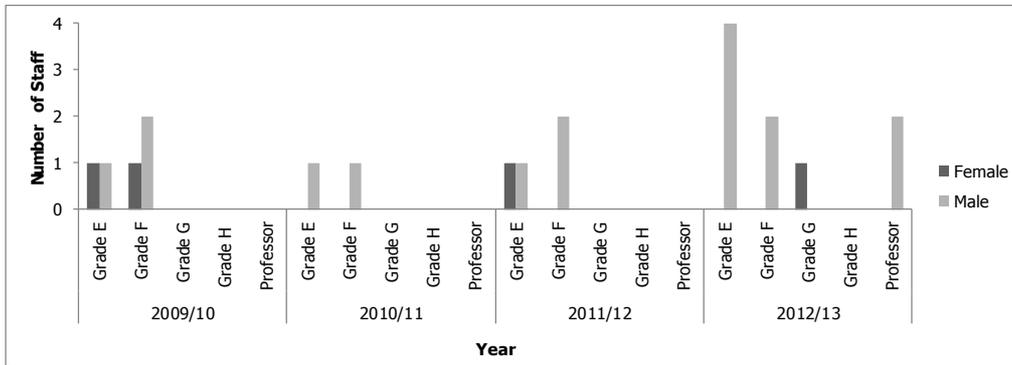


**Data Set11b :** All staff by job salary grade breakdown over time.

Grade	Year	Female	Male	Total	% Female
Grade E	2008/09	1	4	5	20%
	2009/10	1	1	2	50%
	2010/11	1	2	3	33%
	2011/12	4	7	11	36%
	2012/13	8	14	22	36%
Grade F	2008/09	1	7	8	13%
	2009/10	3	10	13	23%
	2010/11	1	14	15	7%
	2011/12	2	14	16	13%
	2012/13	4	18	22	18%
Grade G	2008/09	0	5	5	0%
	2009/10	0	5	5	0%
	2010/11	0	5	5	0%
	2011/12	0	6	6	0%
	2012/13	2	13	15	13%
Grade H	2008/09	0	3	3	0%
	2009/10	0	3	3	0%
	2010/11	0	3	3	0%
	2011/12	0	4	4	0%
	2012/13	1	4	5	20%
Professor	2008/09	0	12	12	0%
	2009/10	0	11	11	0%
	2010/11	0	11	11	0%
	2011/12	0	12	12	0%
	2012/13	1	22	23	4%

**Turnover by grade and gender** – comment on any differences between men and women in turnover and say what is being done to address this. Where the number of staff leaving is small, comment on the reasons why particular individuals left.

Turnover is low. The main reason for staff leaving is the completion of fixed term externally funded contracts. Since 2006 all leavers are invited to complete an online confidential exit questionnaire (AP3.8). The primary trend from questionnaires is that the relatively isolated geography of the UofE locations provides limited local employment for partners. Exit interviews are offered to all leavers with HoD (AP3.8), whilst researchers have interviews with their supervisors. The take-up of exit interviews has been very low. The exit questionnaire and process has been reviewed by the central HR team with feedback provided by members of ASWG. It is believed that the revised questionnaire and tracking process (AP3.8) will increase the rate of completion and provide more detailed information for analysis in future years (AP1.2).



**Data Set 12a :** Number of leavers by grade over time.

Year	Grade	Female	Male	Total	% Female
2009/10	Grade E	1	1	2	50%
	Grade F	1	2	3	33%
	Grade G	0	0	0	0%
	Grade H	0	0	0	0%
	Professor	0	0	0	0%
2010/11	Grade E	0	1	1	0%
	Grade F	0	1	1	0%
	Grade G	0	0	0	0%
	Grade H	0	0	0	0%
	Professor	0	0	0	0%
2011/12	Grade E	1	1	2	50%
	Grade F	0	2	2	0%
	Grade G	0	0	0	0%
	Grade H	0	0	0	0%
	Professor	0	0	0	0%
2012/13	Grade E	0	4	4	0%
	Grade F	0	2	2	0%
	Grade G	1	0	1	100%
	Grade H	0	0	0	0%
	Professor	0	2	2	0%

**Data Set 12b :** Number of leavers by job family over time.

Year	Job Family	Leavers			All staff		% of leavers as a proportion of all staff	
		Female	Male	Total	Female	Male	Female	Male
2009/10	Research	0	0	0	1	4	0%	0%
	Education and Research	1	1	2	1	23	100%	4%
	Educaton and Scholarship	1	0	1	2	3	50%	0%
2010/11	Research	0	1	1	1	6	0%	17%
	Education and Research	0	0	0	0	26	0%	0%
	Educaton and Scholarship	0	1	1	1	3	0%	33%
2011/12	Research	1	2	3	5	10	20%	20%
	Education and Research	0	1	1	0	31	0%	3%
	Educaton and Scholarship	0	1	1	1	2	0%	50%
2012/13	Research	0	5	5	10	20	0%	25%
	Education and Research	1	2	3	5	50	20%	4%
	Educaton and Scholarship	0	1	1	1	3	0%	33%

Word Count: 1,996 words

#### 4. Supporting and advancing women’s careers: maximum 5000 words

**Key career transition points** Provide data for the past three years (where possible with clearly labelled graphical illustrations) on the following with commentary on their significance and how they have affected action planning.

**Job application and success rates by gender and grade** – comment on any differences in recruitment between men and women at any level and say what action is being taken to address this.

The University’s recruitment system changed in 2011 and moved to e-Recruitment for posts in Education and Research and Professional Services. From July 2014 all posts will move into this system, improving data collection and future monitoring (AP4.2,AP1.1).

Data Set 13 shows the number of posts recruited through e-recruitment. Of the academic appointments made during 2012/13, 4 out of 12 E&R appointments were female including our first female full and associate professors.

<b>Data Set 13a : Total e-Applicants over time with success rates</b>				
	<b>Female</b>	<b>Male</b>	<b>Total</b>	<b>% Female</b>
2010/11	2	18	20	10%
2011/12	9	47	56	16%
2012/13	39	213	252	15%

<b>Appointments</b>				
	Female	Male	Total	% of Women applicants
2010/11	0	2	2	0%
2011/12	1	2	3	33%
2012/13	4	8	12	33%

We have a number of mechanisms to remove unconscious, bias:

- All vacancies are advertised on the University’s “Working Here” web pages. These contain information regarding family friendly policies, as well as staff profiles and testimonies. These pages were reviewed and updated in 2012 to be gender balanced and linked to our Athena SWAN work. (AP4.2)
- All Chairs have undertaken Recruitment and Selection training. Other staff who sit on interview panels are encouraged to undertake Recruitment and Selection training (13% of total staff in Sept 2013 to 25% in March 2014). Equality and Diversity training is provided for all staff (43% in Sept 2013 to 81% in March 2014)(AP4.1,AP6.10).
- Internal candidates who apply for jobs, and are unsuccessful are offered career counselling for interviewees.
- Athena SWAN is included on all academic advertisements.
- Template adverts, job descriptions and person specifications are in place. The Department uses these templates for all academic appointments including ECR. Each job includes a range of key duties which recognises education, pastoral and welfare roles as well as the traditional research elements of academia. These duties are recognised in our Workload model (AP1.6).

We now have a female member on all E&R interview panels. Given the low numbers of female staff and our wish not to overburden them, female panel members are drawn from inside and outside the Department (AP4.3).

We encourage ECR and PhD students to attend presentations by Interviewees to see the appointment process in action.

The proportion of female applicants is still less than the national average for staff in Maths and Computer Science Departments whilst the chance of success is higher than for male candidates so that our current rate at recruitment (27% female) is higher than the national average for staff numbers (23%) for mathematics. The number and gender of new starters in 2012/13 is shown in Data Set 13b. The new female professor started in October 2013 and does not appear in this Data Set.

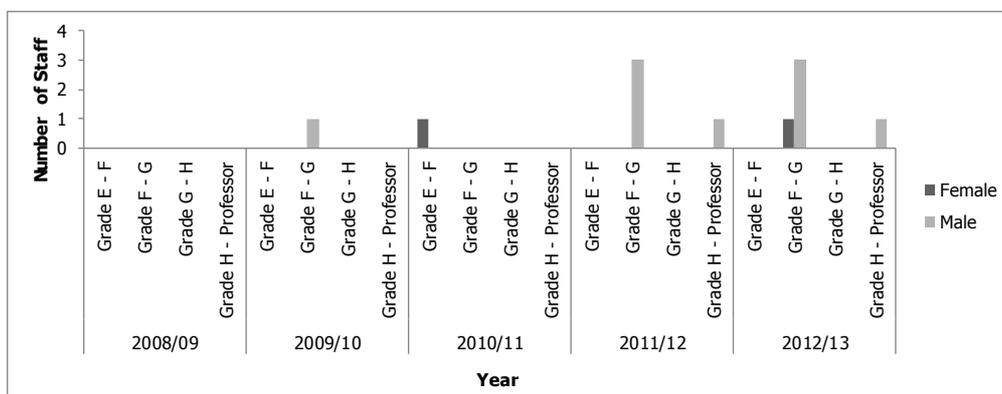
**Data Set 13b: Total New Starters by position for 2012/13**

	<b>Position</b>	<b>Female</b>	<b>Male</b>	<b>No. Positions</b>	<b>% Female</b>
2012/13	Research Fellow	1	3	4	25%
	Associate Research Fellow	2	7	9	22%
	Lecturer (E&R)	2	1	3	67%
	Lecturer (E&S)	0	2	2	0%
	Senior Lecturer	1	0	1	100%
	Associate Professor (E&R)	1	1	2	50%
	Professor (E&R)	0	2	2	0%
	<b>Total</b>		6	16	22

***Applications for promotion and success rates by gender and grade*** – comment on whether these differ for men and women and if they do explain what action may be taken. Where the number of women is small applicants may comment on specific examples of where women have been through the promotion process. Explain how potential candidates are identified.

There are no restrictions on when in the year an individual can apply for promotion or any quotas on the number of promotions. The Accrediting Staff Professionalism in Research Led Education (ASPIRE) programme for academics has proved useful in setting out the requirements for promotion and giving staff confidence to apply.

In the last five years 18% of successful applications for promotion have been from female staff (1 female achieved two promotions).



**Data Set 14:** The number of promotions by grade over time.

		Female	Male	Total	% Female
2008/09	Grade E - F	0	0	0	0%
	Grade F - G	0	0	0	0%
	Grade G - H	0	0	0	0%
	Grade H - Professor	0	0	0	0%
2009/10	Grade E - F	0	0	0	0%
	Grade F - G	0	1	1	0%
	Grade G - H	0	0	0	0%
2010/11	Grade H - Professor	0	0	0	0%
	Grade E - F	1	0	1	100%
	Grade F - G	0	0	0	0%
	Grade G - H	0	0	0	0%
2011/12	Grade H - Professor	0	0	0	0%
	Grade E - F	0	0	0	0%
	Grade F - G	0	3	3	0%
	Grade G - H	0	0	0	0%
2012/13	Grade H - Professor	0	1	1	0%
	Grade E - F	0	0	0	0%
	Grade F - G	1	3	4	25%
	Grade G - H	0	0	0	0%

Our numbers are low due to the lack of female staff in the pipeline and female staff have been reticent about putting themselves forward for promotion. We have put in place the following actions to resolve this:

- There are dedicated webpages for staff in academic roles which are split into ‘You Teach’ ‘You Research’ and ‘You Teach and Research’. This contains detailed information on promotion criteria and the process for being considered for promotion. Pastoral and outreach responsibilities are recognised in the promotion criteria and are pro-rata’d for part-time staff. (AP6.12)
- We now monitor promotion rates annually and act on any trends (AP 1.1).
- We have run interview experience workshops which include the structure of an academic interview, what a panel looks for in a candidate and a Q&A session (Streatham and Penryn) (AP3.3)
- We will be running promotion workshops in July 2014 (AP3.9) to further clarify the process and encourage pro-active promotion planning. (AP3.3)
- The University has run Springboard workshops annually eg March to June 2014. An additional science-based Springboard Workshop is planned for 2014/2015. (AP3.6)
- The new Aurora programme provides an opportunity for female staff to develop core leadership and knowledge skills. We have one member of staff currently undertaking this

training, who will act as an ambassador for the programme and mentor future attendees. (AP3.10)

All staff, including research staff, have to complete an annual appraisal (AP 5.1). For academic staff this is with their academic lead and for research staff with their supervisor. All appraisers receive training prior to carrying out an appraisal (AP5.2). The form includes a section on career goals, and provides a good opportunity for a discussion on promotion prospects.

We have a range of support mechanisms to assist our cohort of ECRs to progress to academic posts. These include the formation of Early Career Networks (AP3.9) at Streatham following the pilot ECN at Penryn. The Streatham ECN is for MCS, and co-ordinates with similar networks in Physics and Engineering while the Penryn ECN is for all CEMPS/CLES early career staff. One of the activities of these networks is to run workshops and to promote training provided centrally by the University.

*For each of the areas below, explain what the key issues are in the Department, what steps have been taken to address any imbalances, what success/impact has been achieved so far and what additional steps may be needed.*

**Recruitment of staff** – *comment on how the Department’s recruitment processes ensure that female candidates are attracted to apply, and how the Department ensures its short listing, selection processes and criteria comply with the University’s equal opportunities policies*

We have put in place the following measures:

- All existing staff are required to take Equality and Diversity training (43% in Sept 2013 to 81% in March 2014). All new staff are trained as part of the induction programme (AP 6.10).
- All Chairs of recruitment panels have Recruitment and Selection training with other panel members encouraged to undertake this training (13% in Sept 2013 to 25% in March 2014. (AP 4.1).
- There is female representation on all interview panels (AP 4.3) see above.
- We are moving to e-recruitment for all career paths to allow the collection of data and subsequent monitoring (AP 4.2)

**Support for staff at key career transition points** – *having identified key areas of attrition of female staff in the Department, comment on any interventions, programmes and activities that support women at the crucial stages, such as personal development training, opportunities for networking, mentoring programmes and leadership training. Identify which have been found to work best at the different career stages.*

Our actions are focussed on increasing and retaining early career researchers, supporting their career progression and attracting and retaining more senior female academics as role models. The importance of role models is reflected in our celebrations for International Women’s Day 8 March 2014 which included:

- (1) **Inspiring though our “Been There, Done That” discussions:** These informal, interactive sessions were led by women at different stages of their studies and/or career honestly discussing how they made the move to the next stage and promoted to MCS students.
- (2) **Inspiring through Research:** Throughout 2014 we are providing a gender related research seminar each month with academics and students using the wealth of international research being done at the University on gender related subjects.

**(3) Inspiring through achievement:** Each day in March we featured via social media the achievements of women on the homepage of the University website including Emily Burton, second year Mathematics student (see page 12), Dr Anna Harper, Mathematics Research Fellow (below) and Dr Zena Wood, Senior Lecturer in Computer Science (See pages 35 and 39):



Anna said: “My proudest moment was finishing my PhD. After working on my dissertation research for four years, it was amazing to see it all come together into a piece of work that I could be proud of., I was also proud to finish it five months after giving birth to my daughter, and that would not have been possible without the support of my husband. ...To me, inspiring change means increasing opportunities for women, so that they can create positive change in their own lives and the lives of others. I think we are making progress toward more women having individual freedom and fulfilment in their lives.”

**(4) Inspiring others:** “Share with us which woman (women!) have inspired you by joining in our photo montage events being held at Streatham, St Lukes, Penryn and Truro campuses and Veysey building.” This photo montage has been developed into a film providing a wealth of different and diverse role models and shared via YouTube.

In 2012/13 we set up a pilot Early Career Network jointly with another Science College on the Penryn campus and using the experience gained from the pilot are developing an Early Career Network to co-ordinate with Engineering, Physics and Astronomy Departments on the Streatham campus, with the launch planned for June 2014 (AP3.9). The ECN’s organise events for early career staff, including events on career development and promotion.

We identified our seminar series was male dominated and are working hard to resolve this by increasing the number of women speakers (Data Set 15) as female role models (AP6.9).

**Data Set 15: MCS Colloquia and Seminars 2011 – 2014 (Actual)**

Year	Total Events	Female Speakers	Male Speakers	F as % of total
2011/12	76	12	64	16%
2012/13	84	13	73	15%
2013/14 Term 1	44	8	43	16%
2013/14 Term 2	18	4	14	20%

The new full professor in Mathematics, Professor Beth Wingate who arrived 1 October 2013 gave her inaugural lecture as part of the Inspiring Science Lecture Series on 26 February 2014.

	<p>Beth says “As a female senior professor I have had my own experience with the issues underpinning the Athena SWAN initiative. I spent more than 15 years at the Los Alamos National Laboratory (LANL) and became a senior scientist of high standing with institutional responsibilities for mathematics and computing, including representing LANL to the US Department of Energy's Advanced Scientific Computing Research efforts. Over the years I have acquired both a compassionate personal view and a human/institutional-scale-view of the problems we will face if we do not address the issue of partnership in STEM subjects. In the USA, for example, a large fraction of STEM women are partnered with STEM men, an issue I was not aware of until I became involved in recovering women to science who left because of partnering issues (there were not two jobs together). This led to a cultural change at LANL in which awareness of partnership issues has been seen as a loss to STEM and new avenues of 'recovering' young scientists through a modified postdoc experience have been tried. For this work I was presented an Outstanding Mentoring Award. In my role as a senior professor at the UoE I intend to pursue the issue of partnership in STEM, as it affects women, men, families, and the nature of STEM education in the UK and try new strategies to address it.”</p>
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**Career development**

*For each of the areas below, explain what the key issues are in the Department, what steps have been taken to address any imbalances, what success/impact has been achieved so far and what additional steps may be needed.*

**Promotion and career development** – *comment on the appraisal and career development process, and promotion criteria and whether these take into consideration responsibilities for teaching, research, administration, pastoral work and outreach work; is quality of work emphasised over quantity of work?*

Our appraisal process was originally implemented across all career paths in 2002. It has been reviewed across the University three times and in 2012/13, 85% of academic staff in the College completed an annual appraisal. We are monitoring the take up of annual appraisal (AP 5.1) and ensure that all appraisers have been trained (AP5.2). The appraisal recognises all areas of academic work including pastoral care and outreach work. We recognise the work involved in conducting appraisals within the workload model (AP6.12).

Promotion criteria is published on our website to inform prospective and existing staff about career pathways.

For all staff involved in teaching, the University offers the Accrediting Staff Professionalism in Research Led Education (ASPIRE) programme. It offers the opportunity for staff to gain both a UofE ASPIRE Fellowship and the associated HEA Fellowship at one of four levels: Associate, Fellow, Senior Fellow or Principal Fellow (AP3.4).

For our research staff, including ECRs, the University runs a Researcher Developer Programme which provides personal and professional development to enhance their research and employability, in academia or beyond. (AP6.5,AP6.6,AP6.7).

**Induction and training** - *describe the support provided to new staff at all levels, as well as details of any gender equality training. To what extent are good employment practices in the institution, such as opportunities for networking, the flexible working policy, and professional and personal development opportunities promoted to staff from the outset?*

Staff induction is a very important part of recruitment. New staff and existing staff moving to a new role, have a mandatory induction process. Staff are informed about the induction procedures in their appointment letters (ahead of commencing the role). Each staff member (for all career paths) is allocated an Induction Facilitator and notified of this named contact prior to the commencement of new posts (AP3.1). Induction Facilitators are specially trained staff members who work in the same location as starting staff (AP3.1). There are three levels to the induction process; University level, College level and job specific level inductions.

There is a published code of practice, an induction timetable (spanning three weeks) and checklist and supporting online documentation, which the Induction Facilitator and new staff member will work through. This is supplemented by an Information Guide which covers: Organisation, Facilities, Policies and Procedures, campus specific information and a jargon buster (AP3.1). Staff are provided with information about support provided by the Parents' and Carers' Network (AP7.10).

As part of the new staff induction programme all staff are invited to a University induction talk and lunch hosted by the Vice Chancellor and Deputy Vice Chancellor team (AP3.1), providing an opportunity to hear first-hand the overarching strategic objectives of the University, network with staff from other academic areas and meet members of the central professional services team. All new staff have a meeting with the Head of Department (AP3.2). The effectiveness of induction is measured by an annual survey of new starters (AP3.1, 3.2) to inform appropriate changes to induction in future years.

Our Athena SWAN initiatives are highlighted in personal inductions. This includes discussing the possibility of flexible working, core meeting hours (10am-4pm) (AP6.11) and family friendly policies.

**Support for female students** - *describe the support (formal and informal) provided for female students to enable them to make the transition to a sustainable academic career, particularly from postgraduate to researcher, such as mentoring, seminars and pastoral support and the right to request a female personal tutor. Comment on whether these activities are run by female staff and how this work is formally recognised by the Department.*

We recognise in the pipeline there is a drop-off from UG to PGR level. In September 2012 a study by a PhD student, jointly funded by CEMPS and Psychology, was carried out (AP1.4) to attain better qualitative data concerning our UG student population. The resulting data gave us key information about 'fit measures' 'perceived success' and 'reactions to Athena SWAN initiatives'. This quantitative data is highly influential for developing our action plan and will be repeated every 18 months until 2015. One of the key findings suggests a measurable gender difference emerging among UG students with third year female students feeling less interested and motivated by the subject, whilst at the same time achieving better results than their male peers. We are taking a number of actions to understand our female students' motivations and encourage student engagement leading to increased recruitment of female PGR students:

(1) Focus groups in October 2014 with Year 2 students progressing to year 3 to identify additional support for the third year of their studies (AP1.3, AP2.12).

(2) Support has been provided to enable UG to set up the Journal of Undergraduate Science and Technology with Athena SWAN principles highlighted at the launch in 2013.

(3) Increased use of role models in the Inspiring Science lecture series and informal staff research talks to UG students (AP6.9, AP9.2).

(4) Updated our online prospectus and outward-facing web pages to show commitment to Athena SWAN principles and ensure the promotion of role models and achievements by female students and staff (AP2.1 / AP6.4 / AP9.2)

(5) Our 'Career Zone' on campus provides a range of support mechanisms from dedicated careers and employment staff for students thinking about future career choices, including:

- Finding graduate-level jobs
- Looking for part-time and casual work
- Finding internship opportunities
- Searching employability factsheets and FAQs
- Booking appointments with the careers service
- Viewing upcoming careers drop-in sessions
- Booking onto employability events

(6) The Profiling for Success scheme is an online personal and career development tool for students (AP2.14). The main initiatives include: understanding values and learning style, evaluating career interests, identifying things students might find difficult and develop strategies to deal with these and understand how students relate to others in different situations (e.g. team work, leadership/management, socially).

We aim to give PGR students a wide range of opportunities to be involved in research, teaching and outreach, and so play a full role in MCS and aspire to academic or research careers:

(1) Within CEMPS the recruitment process for PGR students has been revised and is now documented in the PGR Staff Handbook (AP2.3). At University level a working group including a member of the MCSASWG has been set up to look at the recruitment process.

(2) All staff involved with PGR admissions and supervision are required to have taken Equality and Diversity and Recruitment and Selection training (AP6.10, AP2.3, AP4.1). There is a two-year cycle of College Supervisor Training Events, the last in June 2013 (Streatham Campus) where Athena SWAN issues were highlighted and discussed (AP2.4).

(3) There is a 1.5 day induction session for PGR students in our Department, which includes presentations from mentors, PGR coordinators, a welcome lunch, and in the evening a series of short research taster talks from staff members, introduced by the Dean (in 2013 including a talk from a new female lecturer on large numerical computations in astrophysics).

(4) All MCS PGR students have a mentor. This role has a strong pastoral component, providing an avenue for students to discuss confidentially concerns, difficulties or even complaints outside their immediate supervisory team and research group. This role is currently held by a male member of staff. We note that the two administrative staff who handle PGR matters are female and offer much day-to-day pastoral support to students including liaising on any difficult matters. We are moving to a system where mentors are drawn from across the MCS academics from 2014 (AP2.6). This involves staff of both genders in mentoring and allows a female PGR student to request a female mentor.

(5) PGR students complete an Individual Study Plan annually to determine their training needs and encourage conference attendance and research dissemination. Support for students is facilitated by the MyPGR system (AP2.11) which allows the recording of meetings with supervisors and mentors. All PGR students have at least £500 per annum to support conference attendance and similar activities: this sum can be rolled forwards.

(6) All second year PGR students present their work at the annual PGR Conference (AP3.5).

The proportion of female researchers currently exceeds that of PGR students. This illustrates the point that PhDs, researchers and academic appointments are all drawn from an international pool of potential applicants. We are working to ensure that we encourage all PhD students and in particular women to consider academic or research careers. Support includes:

(1) Our “Researcher Development Programme” provides postgraduate research students and ‘early career’ researchers (ECRs) with personal and professional support to enhance their research and employability, in academia or beyond (AP6.5). The University has also developed and implemented a “Researcher Toolkit” which houses all research-relevant information from across the University in one place, including funding opportunities and support/resources available to staff (AP6.6). Since providing this support mechanism we have seen an increase with 80% of female PGRs and 79% of female Research staff now accessing these resources in 2012/13.

(2) The MCS ECRs in Penryn belong to a joint CEMPS/CLES Early Career Network which was piloted in 2013 and are supporting the MCS ECRs in Streatham to develop an Early Career Network and co-ordinate with Physics and Engineering on this campus (AP3.9).

(3) PGR students have a Forum and a Student-Staff Liaison Committee (SSLC) specifically to discuss PGR concerns and developments. PGR SSLC representatives sit in the MCS Department meeting, where the main business of MCS, including research and teaching, is discussed allowing both input from PhD students and experience of PhD students in the running of the Department (AP2.10).

(4) Our regulations allow PGR students flexibility to manage children, career breaks, and other personal circumstances. Students can move easily between part-time and full-time, and can apply for an interruption to their study, and these are granted (AP2.8). Three years ago three students interrupted for maternity leave during their PhDs and returned to complete their studies.

### Organisation and Culture

*Provide data for the past three years (where possible with clearly labelled graphical illustrations) on the following with commentary on their significance and how they have affected action planning.*

**Male and female representation on committees – provide a breakdown by committee and explain any differences between male and female representation. Explain how potential members are identified.**

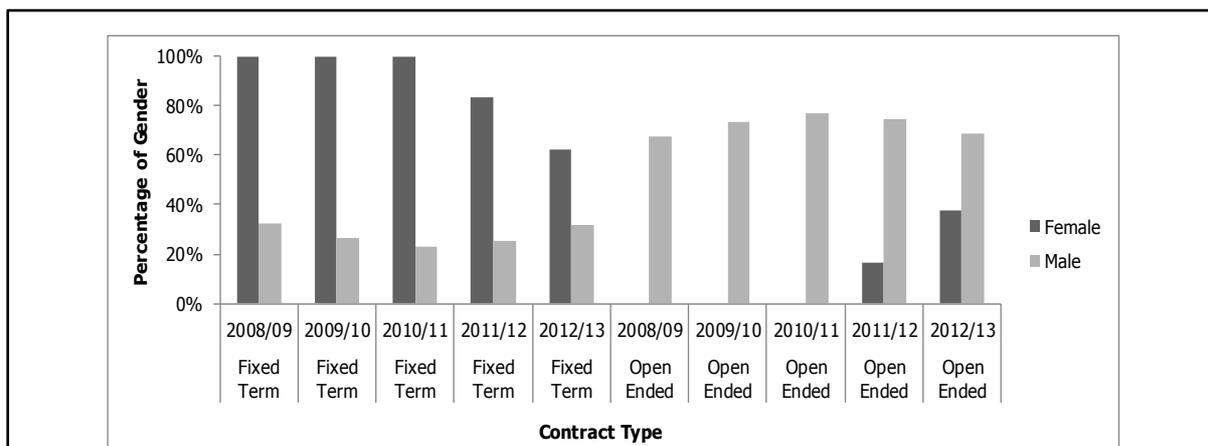
Staff membership of College committees (Figure 3) is normally determined by virtue of their role eg Head of Discipline, Director of Research within the College and/or department. The MCS department has very few committees: the discipline meeting which includes all members of staff and meets once a term with Athena Swan as a standing agenda item; and a student/staff liaison committee.

Figure 3: CEMPS / Maths and Computer Science Committees – Membership by Gender

Name of Committee	Purpose of Committee	Total number of members	Female Members	Male Members	% of Female Members
College Executive Group (CEG)	College level strategic planning, resource allocation and decision making	8	1	7	12.5%
College Management Group (CMG)	College management and communication	30	9	21	30%
College Education Strategy Group (CESG)	College education strategic planning and decision making	15	8	7	53%
Research and Knowledge Transfer Executive Group (RKTEG)	College research strategic planning and decision making	14	3	11	21%
College PGR Student/Staff Liaison Committee (PGR SSLC)	Staff and PGR Student forum for communication and feedback	22	10	12	45%
Student Partnership Board (SPB)	Strategic consultative group to discuss student/staff liaison across the college	13	7	6	54%
Harrison Education Committee	Monitoring quality of teaching and learning and facilitating sharing of good practice	20	3	17	15%
Maths / Computer Science Discipline Meeting	Management, organisational and research issues	36	6	30	16%
Maths / Computer Science Staff Student Liaison Committee (SSLC)	Staff-Student forum for communication and feedback	11	5	6	45%

**Female:male ratio of academic and research staff on fixed-term contracts and open-ended (permanent) contracts - comment on any differences between male and female staff representation on fixed-term contracts and say what is being done to address them.**

Prior to 2011/12 all female staff were on fixed term contracts. We are delighted that since working with AS principles this has improved to 63% fixed term and 38% open-ended. In part this reflects the increase in the total numbers of female staff, which is starting to be reflected in more senior positions. We are seeking to continue this improvement year on year.



**Data Set 16:** Contract type for each gender over time

Contract Type	Year	Female	Male	Total	% of all staff	% of female staff
Fixed Term	2008/09	2	10	12	17%	100%
	2009/10	4	8	12	33%	100%
	2010/11	2	8	10	20%	100%
	2011/12	5	11	17	29%	83%
	2012/13	10	23	33	30%	63%
Open Ended	2008/09	0	21	21	0%	0%
	2009/10	0	22	22	0%	0%
	2010/11	0	27	27	0%	0%
	2011/12	1	32	33	3%	17%
	2012/13	6	50	56	11%	38%
Total	2008/09	2	31	33	6%	
	2009/10	4	30	34	12%	
	2010/11	2	35	37	5%	
	2011/12	6	43	49	12%	
	2012/13	16	73	89	18%	

For each of the areas below, explain what the key issues are in the Department, what steps have been taken to address any imbalances, what success/impact has been achieved so far and what additional steps may be needed.

**Representation on decision-making committees** – comment on evidence of gender equality in the mechanism for selecting representatives. What evidence is there that women are encouraged to sit on a range of influential committees inside and outside the Department? How is the issue of ‘committee overload’ addressed where there are small numbers of female staff?

Allocation of Departmental resources and setting business plans are ultimately the responsibility of the CEG. All staff ultimately participate in decision making via termly staff meetings. Staff are also

encouraged to participate in University Committees. Monitoring of such participation is captured in the workload model, to minimise over-burdening.

The University revised its Committee structure in 2007/08 with various areas of the University business, which had previously been governed by committee, now governed through a new mechanism known as dual assurance. This model minimises time spent in Committees whilst providing assurance to Council that this activity is well-managed and that decisions have been reached following due process and appropriate consultation. As a result Task and Finish Groups are used across the University to take forward consultation and reviews. This provides more opportunity for more staff to be involved in the wider governance of the University. The Groups are set up as required and published to staff who can self-nominate or be nominated by their College. They last for a defined period of time, with workload adjusted to allow engagement (AP6.12).

**Workload model** - *describe the systems in place to ensure that workload allocations, including pastoral and administrative responsibilities (including the responsibility for work on women and science) are taken into account at appraisal and in promotion criteria. Comment on the rotation of responsibilities e.g. responsibilities with a heavy workload and those that are seen as good for an individual's career.*

The SWARM (Staff Workload Allocation and Resource Management) workload planner calculates every staff member's workload across their academic year and presents the data against others in our Department as well as breaking workload down by research, teaching, supervision, mentoring, pastoral duties, and administration roles. Staff can be confident that the work they are doing is not going unnoticed and can compare their level of work against an average and can negotiate workload within our Department (AP1.6, AP6.12) Pastoral care and outreach work are valued by our department and workload is adjusted accordingly for staff working reduced or part-time hours because of caring responsibilities.

For the first three years of a Lecturer's appointment there is protected time and a reduced teaching commitment that enables them to train and to establish their research.

**Timing of Departmental meetings and social gatherings** – *provide evidence of consideration for those with family responsibilities, for example what the Department considers to be core hours and whether there is a more flexible system in place.*

All College and departmental meetings/committees and seminars and colloquia are scheduled between 10am and 4pm (AP6.11). Video conferencing is used extensively between two campuses to facilitate communication (AP6.2).

**Culture** - *demonstrate how the Department is female-friendly and inclusive. 'Culture' refers to the language, behaviours and other informal interactions that characterise the atmosphere of the Department, and includes all staff and students.*

Our Departmental culture comes from a variety of sources, including the University management ethos, the Department (and groupings within our Department) cultural heritage, the campus, important informal or formal groupings and modes of communications within and between groupings. The culture in MCS is open and welcoming. New staff, both female and male, are invited to join existing staff for lunch when they join. There are regular informal social gatherings, for example Exeter Climate Systems (XCS) has 'Climate Cake' on Friday afternoon with an open invitation issued to all XCS staff and PGR students to attend. The Computer Science group meet for coffee every day (and welcome others to join them). The Penryn campus has a much smaller number

of staff so informal gatherings include staff in other departments in the Environment and Sustainability Institute. The building and environment clearly affect this strongly and we carry out a formal annual visual audit of buildings, with continuous informal monitoring by members of the MCSASWG, to ensure there is no unintended gender bias in displays, noticeboards (AP6.8).

We do undertake a number of “team building” activities to try and ensure that as much of the Department is included, inclusive of PGR students and other early career staff. The main cross-Departmental regular activity are the Colloquia which address topics of general interest and are accessible to a wide range of staff and students (AP6.9). All such meetings are streamed across both campuses. We have, for example, at Streatham an annual summer country walk during ‘working’ hours where accompanying children are always welcome.

**Outreach activities** - *comment on the level of participation by female and male staff in outreach activities with schools and Colleges and other centres. Describe who the programmes are aimed at, and how this activity is formally recognised as part of the workload model and in appraisal and promotion processes.*

We work with schools across Devon, Cornwall and Dorset to deliver a wide-ranging Outreach programme aimed at raising aspirations of students and awareness of the subjects offered. Each academic within the College is allocated time in the workload model for admission and outreach duties. Participation in Outreach activities is monitored for promotion and appraisal purposes. Dr Zena Wood, one of our role models, has championed Outreach Activities (AP8.1)



Zena says “I am passionate about encouraging and inspiring students to consider studying Computer Science and seeing how exciting the subject it is. A key aspect of this is to break down the stereotypes that are often associated with it. My colleagues and I run interactive activities to show students from aged 10 to 18, how exciting the subject is and inspire them to investigate it further.”

As well as traditional outreach activities, such as school visit days, these include:

- “Inside the Machine” workshops were piloted in 2008/2009. Following a positive reception five themed workshops are offered to schools for pupils aged 10 – 18 each year. Lectures aimed at older students aged 16 – 18 and tailored to the curriculum are developed in partnership with the schools.

- The annual Computer Science 4 day residential on Artificial Intelligence for Year 9 pupils is hosted in conjunction with the Smallpiece Trust. In April 2013, 45 pupils attended the residential with 17 females and 28 males. We aim to attract more females year on year.
- The “Raspberry Pioneers Coding Club” at an all-girls school in Dorset is being supported to increase the number of pupils (within the school and from feeder primaries) interested in programming. Further work is being undertaken, in conjunction with a local employer, to develop sponsored competitions; web chats and video profiles on “Who Inspires You”.
- In 2013 a workshop was held with teachers from First Schools (educating pupils aged 5 – 7) entitled “How To Put Computing in the Curriculum.”
- The ITMB programme runs an annual competition for students (Yrs 1, 2 and 3) focused on “How to get more students aged 8 to 16 into IT and Computer Science–Related subjects”. Female alumni from the ITMB programme regularly sit on panels explaining choices to prospective students and providing mentoring support.
- Women in science and engineering events were started in 2010/11 at the request of the schools for Years 9 and 12 to showcase “Opportunities in Science”. The most recent event included a key note speaker; interactive sessions across the Departments and speed-updating with 8 female scientists at different stages from students to Professor.
- Our Mathematics Team delivering outreach activities across Devon and Cornwall is gender balanced and drawn from the three career paths and PGR/PhD students. The team has been involved in planning and curriculum development for the forthcoming Exeter Mathematics School (AP8.2)(see page 43).
- Within the RCUK project “Empowering Partnerships, Enabling Engagement” a group of early career researchers ran a mathematics day for a mixed cohort of “aspiring” year 9 students from schools in Falmouth, Helston, Mullion and Penryn (the South Shore Partnership).
- In the summers of 2012 and 2013 our early career researchers worked with five year 12 maths “gifted and talented” students (3 female) from Colleges in Cornwall on Nuffield Research Placements.
- Early Career Researchers have run dozens of workshops at schools and Colleges throughout Cornwall. Most recently, they ran a workshop with year 11 students from Truro High School for Girls.

Our existing students are keen to act as role models and support our outreach work:

- In 2013/14 21 “Student Ambassadors” (14 females and 7 males) provided tours and answered questions on post-offer visit days.
- PGR students are involved with outreach activities as part of their Training, Development and Employability (AP2.9)
- Morgan Liebling-Davis, a fourth year female Maths student, has developed excel and geogebra-based computer-worksheets to explore climate change and disease dynamics. Morgan trialled her worksheets with year 9 and 10 students at Mounts Bay and Humphry Davy Schools in Cornwall and her findings are being presented at the HEA Annual STEM Conference in Edinburgh, in April 2014.

We are planning to increase our engagement with female alumni as role models, through our Inspiring Science and colloquia seminars (AP8.3, AP6.9, AP9.2).

**Flexibility and managing career breaks**

*Provide data for the past three years (where possible with clearly labelled graphical illustrations) on the following with commentary on their significance and how they have affected action planning.*

We operate a flexible system. For example the timetabling system takes into account staff preferences for teaching (or not teaching) on specific days of the week or times.

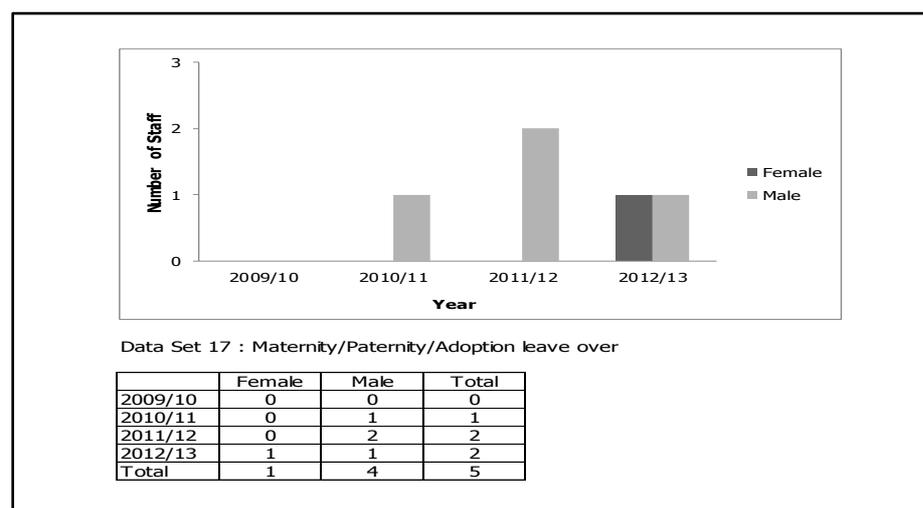
**Maternity return rate** - *comment on whether maternity return rate in the Department has improved or deteriorated and any plans for further improvement. If the Department is unable to provide a maternity return rate, please explain why.*

In the last five years one staff member has taken maternity leave and is currently on leave. Our Department worked with Central HR to review childcare provision and maternity/adoption benefits which have been enhanced. We promote the existing support mechanisms such as child care vouchers (AP7.5). Nursery provision on both campus is being reviewed in the academic year 2013/14 (AP7.7)

We have implemented a number of measures to support staff prior to and on return from leave. Prior to leave individual meetings take place with the College Human Resources Business Partner. Each person has the option to meet with the Dean to discuss any aspect of their leave.

**Paternity, adoption and parental leave uptake** – *comment on the uptake of paternity leave by grade and parental and adoption leave by gender and grade. Has this improved or deteriorated and what plans are there to improve further.*

Since 2008, four male academic staff have taken paternity leave, no female staff have taken paternity leave. No cases of adoption leave have been recorded.



**Numbers of applications and success rates for flexible working by gender and grade** – *comment on any disparities. Where the number of women in the Department is small applicants may wish to comment on specific examples.*

*For each of the areas below, explain what the key issues are in the Department, what steps have been taken to address any imbalances, what success/impact has been achieved so far and what additional steps may be needed.*

***Flexible working*** – comment on the numbers of staff working flexibly and their grades and gender, whether there is a formal or informal system, the support and training provided for managers in promoting and managing flexible working arrangements, and how the Department raises awareness of the options available.

This data is gathered by HR when a member of staff formally requests a change to their contractual terms and conditions. Informal flexible working, such as working from home or working hours that suit, is common. All staff are given the opportunity to formally indicate times/dates during the working week when they would prefer not to be scheduled for teaching to accommodate parent and carer responsibility. We are collecting data on flexible working through our timetabling procedures. We will assess these data and add to our action plan as necessary (AP1.2). In 2012/13 we had six male staff working part-time (shown in Data Set 9 above) who are working towards retirement.

Our 'Working Here' web pages promote flexible and part time working to potential applicants. We promote the support available via several avenues e.g. via the College Intranet and during induction (AP3.1, AP7.1).

***Cover for maternity and adoption leave and support on return*** – explain what the Department does, beyond the University maternity policy package, to support female staff before they go on maternity leave, arrangements for covering work during absence, and to help them achieve a suitable work-life balance on their return.

### **Changes in FTE after Maternity**

Currently there have been no changes in working hours after maternity/paternity/adoption. These options are available and are explained to all staff taking maternity/paternity/adoption leave. The Department has a number of initiatives in place to help those about to go on maternity leave, on maternity leave and after maternity leave.

- Confidential maternity/adoption meetings. One to one meetings with the College HR Business Partner to discuss leave policies, support mechanisms prior to and on return from leave and use of 'Keeping in Touch Days' (AP7.2).
- Online maternity leave and pay calculator (AP7.6). Staff who are pregnant or planning pregnancy can calculate their leave and associated pay. This has received positive feedback as staff can access information confidentially at the stage of planning pregnancies.

Word Count: 4,997 words

## 5. Any other comments: maximum 500 words

*Please comment here on any other elements which are relevant to the application, e.g. other STEM-specific initiatives of special interest that have not been covered in the previous sections. Include any other relevant data (e.g. results from staff surveys), provide a commentary on it and indicate how it is planned to address any gender disparities identified.*

### **The Exeter Mathematics School**

One key initiative supported by the MCS Department is the Exeter Mathematics School (EMS) which aims to raise aspirations among mathematically able young people and help enhance the supply of capable undergraduates, in mathematics and closely related fields such as statistics and computer science, with the potential to become the mathematicians whose work underpins the technological innovation of tomorrow. The Exeter Mathematics School is led by a female headteacher: Kerry Burnham. As part of the outreach work, we are developing subject specific digital e-learning resources for teachers, students and parents aimed at building an on-line community. We are involving a number of female academics to deliver workshops (AP8.2).

**From Undergraduate to Senior Lecturer at the UoE:** Dr Zena Wood completed her BSc in Computer Science in 2006 and her PhD in December 2011. From 2006 to 2012 Zena has been a part-time member of staff. Due to family commitments she lives between London and Exeter. Her loadings within the Department have always been assigned to her with this in mind and important meetings scheduled when she is working. In 2012 through discussions with her academic lead and the Dean of the College she was encouraged to consider applying for promotion. Their support and guidance, and the transparent promotion procedure, led to her promotion to Senior Lecturer within Computer Science and becoming a Senior Fellow of the HEA through the University's ASPIRE scheme. For the past two years she has been keen to explore transferring career paths to allow her to carry out research and build her own research group. Through meetings with the Dean and her academic lead a suitable support network has been established which includes a mentor within the research family mentor and a set of targets that would allow her to transfer in the future.

Word Count: 302 words

## 6. Action plan (see appendix)

*Provide an action plan as an appendix. An action plan template is available on the Athena SWAN website.*

*The Action Plan should be a table or a spreadsheet comprising actions to address the priorities identified by the analysis of relevant data presented in this application, success/outcome measures, the post holder responsible for each action and a timeline for completion. The plan should cover current initiatives and your aspirations **for the next three years***

## **Appendix: Action plan**

College of Engineering Mathematics and Physical Sciences, Mathematics and Computer Science- Athena SWAN Action Plan 2014 – 2017

### Introduction

This action plan forms part of the Mathematics and Computer Science Athena SWAN Departmental Bronze Award. This document is more than an appendix to the application; it is a road map that Mathematics and Computer Science will use to track, monitor and review the progress and impact of agreed measures. The action plan will be updated three times per year for discussion at the Mathematics and Computer Science ASWG. Additionally the overall plan will be submitted to the College's Senior Management Team annually and reporting through the University ASWG to the Equality and Diversity Dual Assurance Committee and ultimately to the Vice Chancellor's Executive Group.

### Consultation

There have been a number of methods of staff and student consultation; recurrent and single events. These include focus groups, focus boards (after events) and staff/student surveys. Those actions marked \*\* are as a direct result of consultation arising from MCSASWG work since March 2012

### Objectives:

As part of the self-assessment process nine broad objectives were identified.

1. Gathering and Assessing data
2. Supporting undergraduate and postgraduate students
3. Providing Support around Key Career Transition Points
4. Ensuring Fairness, Transparency and Competence in relation to Staff Appointments
5. Supporting Career Development Opportunities for Staff
6. Ensuring a Fair and Open Departmental Organisation and Culture
7. Providing Quality Maternity/Adoption/Paternity/Carer and Flexible Working Opportunities
8. Ensuring a Gender Balance in Outreach Activities
9. Providing Good Communication Channels and Opportunities to Share and Adopt Best Practice

The action plan is constructed around these nine objectives.

Ref	Action	Responsibility	Timescale and progress		Success Measure (monitoring mechanisms and indexes of success)
			Date (to be) implemented	Recurrent date (if required)	
1	<b>Gathering and Assessing Data</b>				
1.1	Annual monitoring of data and reflection on the impact of interventions	MCSASWG,	Initial data gathering completed in September 2012	Updated annually with report to CEG on findings.	Annual check that the measures implemented are having the positive impact we anticipated and if not identifying what changes need to be made.
1.2	Interpret, monitor and report the progress of the action Plan with recommendations for future change and improvement.	Chair of MCSASWG,	July 2013	Twice per year for the MCSASWG with an annual report to CEG	Ensuring that resources allocated to Action Plan are included in the business plan and that progress is being made on the action plan.
1.3 **	Targeted focus groups developed with staff and students in response to the analysis data to further explore key issues where relevant.	MCSASWG	December 2013	December 2014 and December 2016	In addition to the ongoing MCSASWG work, consult with staff and students to reflect on changes made and seek ideas through focus groups for further changes.
1.4	Review the data from the three AS surveys, interpret data and identify relevant recommendations for MCS.	Thekla Morgenroth, Psychology PhD Student	Commenced September 2012 until September 2015	Every 18 months (3 times ) until 2015	Staff and students will be kept up to date on the actions taken by the group in response to their feedback. Provision of comparison data from across the institution for use by MCSASWG in taking action.
1.5	Equal Pay Audits	Central HR	2010	Embedded	Equal pay audits carried out annually. Outcomes reported through E&D Committees and to Deans.

1.6	Athena SWAN activities linked to the SWARM workload model to enable the continued monitoring of impact.	MCS Head of Department and MCSASWG	September 2013	March and September 2014 then twice per year thereafter	Ensure all Athena SWAN actions and activities are recognised in SWARM
1.7	University wide survey of research fellows to assess how effectively the University is implementing the Code of Good Practice for the Employment of Career Research	Assistant Director (Learning and Development)	May 2013	May 2015 and May 2017	Provision of findings for consideration by the MCSASWG to identify future actions.
2	<b>Supporting Undergraduate and Postgraduate Students</b>				
2.1	Update the undergraduate and postgraduate online prospectus and outward facing web pages to show our commitment to the AS University level Bronze Award principles and create conditions better suited to encourage female applicants to accept offers, including ensuring a good balance of female role models and ambassadors when prospective students visit the MCS Department.	College and Central Marketing Teams	January 2013	January 2014 and annually thereafter	Promote our continued commitment to women at every level of study, to ensure female representation of at least 40% in all courses.
2.2 **	Revise the recruitment process for PhD opportunities: University-wide review	MCSASWG, University ASWG, University Graduate Faculty	Review commencing May 2014	Review aims to conclude in August 2014 with implementation following on	Ensure no unintentional bias and encourage MCS UG to apply for PhD opportunities.

2.3	Supervision for postgraduate research (PGR) students	Director of PGRs, PGR administrative staff.	September 2013	March 2014, September 2014, March 2015, March 2016, March 2017	Require all academics who supervise PGR students to take Equality and Diversity Training (see 6.10), and Recruitment and Selection Training.
2.4	Create and implement Maths/CS specific training for PGR supervisors	Director of PGRs (AG), and Education Enhancement	July 2014	July 2015 then annually thereafter	Bespoke training provision developed which will include and highlight AS principles
2.5	Respond and action student feedback The Module and Course Evaluation (MACE) carries out all evaluation on-line, in an anonymised way and via a standard web browser interface.	Directors of Education	Introduced September 2009	Once each Term	Checked for any actions relating to gender issues and reported to the MCSASWG to take forward any gender items.
2.6 **	Set up a broader mentoring system with all academic staff in MCS as potential mentors and involving both genders.	Director of PGRs, PGR administrative staff.	September 2014	Review September 2015 and annually thereafter	Improved mentoring support for all students with female mentors available to female students. Evidenced by annual student survey.
2.7	Athena SWAN page and general advice page provided for PGR students, on problems and support services.	Director of PGRs	December 2013	Termly	Pages updated to reflect improvements to support for students.
2.8 **	PGR students who have maternity, paternity, or adoption leave are encouraged to discuss this with the Director of Postgraduate Researchers and/or PGR Administrator	Director of PGRs, PGR Administrative staff.	September 2013	September 2014 and annually thereafter	Students are supported through maternity, paternity or adoption leave.

2.9	All PGR students 30 hours per year of Training, Development and Employability activities.	Director of PGRs	September 2013	September 2014 and annually thereafter	Take-up followed up in annual student monitoring exercises and reported to MCSASWG
2.10 **	PGR student representation on Mathematics Department meeting; PGR matters a standing item.	Director of PGRs, PGR Coordinator	September 2013	Termly	Greater inclusion of PGRs. AS is a standing item.
2.11	Monitor use of “MyPGR” system within the Department	Research Support Team	September 2010	Embedded	All PGR students use the “My PGR” system, providing enhanced monitoring and tracking of support.
2.12 **	Set up focus groups to further explore the loss of motivation in third year UG female students and take action to address the problem.	MCSASWG and DoE	May-June 2014	May-June 2015	The success of any action will be measured by the next survey of students (see 1.4)
2.13	Continue working in partnership with INTO to grow Foundation students numbers.	Associate Dean of Education	September 2009	September 2014	Increased numbers of female students progressing from INTO Foundation programmes onto Mathematics and Computer Science degrees.
2.14	Tool “Profiling for Success” and links to MSC programmes at Exeter to all UG/PG students through the Career Zone.	Employability Team, MCS Employability representative	September 2013 Links under review	Reviewed links implemented 2014/15	Additional career planning support provided to students, notably through events focussed on academic careers.
3	<b>Providing Support at Key Career Transition Points</b>				
3.1	Formal University/College induction. All new staff are included in a formal induction process. This includes a lunch with the vice-chancellor and new starter meetings with the Dean.	CEMPS HRBP	New staff lunches held termly (Commenced at University level in 2003)	Staff Engagement Survey October 2014, then October 2016	Feedback on effectiveness.

3.2 **	New Starter meetings for all career paths with the Head of Department.	Head of Department	October 2013	Staff Engagement Survey October 2014, then October 2016	Feedback on effectiveness. Increased engagement and profile of support measures.
3.3 **	Workshops focusing on (a) Interview experience  (b) Promotions	MCSASWG and the ECN	October 2013 (Streatham) Feb 2014 (Penryn)  July 2014	October 2014  February 2015  Each July (2015 – 2017)	Improved knowledge about the interview process and promotion criteria within the Department and increased number of female staff applying for, and gaining promotion to be monitored annually.
3.4	Information sessions on the options for supported teaching qualifications including ASPIRE.	Educational Enhancement Unit / MCSASWG	September 2012	Termly for all new academics	Training reports will monitor uptake and form part of the annual data review by MCSASWG.
3.5	Annual PGR Research Conference  Annual Postgraduate Research Showcase	Director of PGR	October 2009  April 2013	Embedded  Each April (2014 – 2017)	All second year PGR students invited to present their work as part of the annual PGR conference. All staff invited to attend. All PGR Students are invited to submit posters for display in University Forum.
3.6 **	The Springboard programme is a national, personal and professional development programme designed especially for women and run and promoted by the UofE.	Central L&D	31 March – 30 June 2014	Annually	Promoted course to female staff in the Department to heighten knowledge and awareness. Monitor numbers attending annually.
3.7 **	Mentoring Awards. This will highlight good practice, give publicity to the mentoring (both formal and informal) going on in the Department and reward good mentors.	MCSASWG	July 2014	Each July (2015 – 2017)	First annual mentoring awards in the summer of 2014.

3.8	New exit questionnaire and process successfully implemented.	Central HR	Revised process April 2014	Issues will be flagged as they arise.	Leavers' data analysed to consider reasons why they are leaving and if there are any gender, work life balance, etc issues raised to be forwarded to the MCSASWG.
3.9 **	Establish and maintain an Early Career Network.	Early Career Researchers (member of MCSASWG)	Pilot (Penryn) launch July 2013  Streatham Campus Maths/CS Launch June 2014	Embedded	ECN fully operational with allocated departmental resources and meeting the needs of ECNs on both campus. Report to the MCSASWG.
3.10 **	Advertise and encourage female staff to take the Aurora training.	HoD	January 2014	Annually	First member of staff to act as an ambassador for the programme and mentor future attendees in second year of operation. Subsequent attendees to then become ambassadors.
4	<b>Ensuring Fair, Transparent and Competent Staff Appointment Procedures</b>				
4.1	All Chairs have undertaken recruitment and Selection training	HRBP / MCSASWG	June 2012	Review every 6 months	Compliance with University R&S policy.
**	MCS members of staff who sit on interview panels are encouraged to undertake Recruitment and Selection training.				Total Staff (% of): Sept 2013 13% March 2014 25% Target: 100% of all panel members.
4.2	Recruit all posts through Trent e-recruitment system.	Central HR and University ASWG / MCSASWG	July 2014	November 2014, March 2015, March 2016, March 2017	Gender data for all posts will be available for monitoring by MCSASWG

4.3 **	Gender balance on interview panels	College HRBP	January 2013	Review January 2015	All interview panels to include female representation, without over-burdening female staff.
5	<b>Supporting Career Development Opportunities for Staff (please also see section 3)</b>				
5.1	Ensure that all staff have a formal appraisal (PDP)	Central HR in consultation with College(s)	April 2002	Reviewed in 2004, 2010 and 2012 Next review 2015	Survey results indicated that 85% of academic staff (including researchers) had a formal annual appraisal. Aim to have this figure at 100% by April 2015
5.2	100% of appraisers to have received training prior to carrying out an appraisal	CEMPS HR	September 2013	September (2014 – 2017)	Feedback from staff survey will provide data on the quality of appraisals and show whether training of appraisers has had a positive impact. Report to the MCSASWG.
5.3	Researcher survey for the HR Excellence in Research Award	Central HR with Associate Dean of Research	May 2013	May 2015, May 2017	Assess career support needs and allocate strategic resources to meet these. Report to MCSASWG to identify any new actions.
6	<b>Ensuring a Fair and Open College Organisation and Culture</b>				
6.1	Monitoring our media and web profiling of MCS Women	College Marketing Team and Central Marketing Team	May 2013	November 2014, March 2015, March 2016, March 2017	Increased profile of female, academic and student work/achievements.
6.2	Ensure that Athena SWAN updates are communicated to all staff and there are ongoing opportunities for all staff to contribute feedback and ideas	Chair MCSASWG	October 2013	October 2014	Improved communication within Department.

6.3	Report to the College Executive and AS University working group on actions undertaken by MCSASWG.	Chair of MCSASWG	August 2012 continuing with reports	Monthly minutes to College ASWG and University ASWG	Working with the University working group provides access to other Departments and the opportunity to share best practice.
6.4	Keep the MCS AS web pages up to date with information on relevant upcoming events, and information to ensure staff and students are more aware of the support mechanisms which are in place eg for maternity leave etc.	MCSASWG	December 2013	Termly	As events and initiatives are developed these are added to the news section of the MCS AS Webpages. Reports to MCSASWG
6.5 **	Promote the resources available for those choosing the education career path. Target ECR staff and highlight to female staff.	Educational Enhancement Unit / MCSASWG	April 2013	Each April (2014 – 2017)	Briefing sessions on training and qualifications relating to teaching to increase training update.
6.6	RKT Researcher Toolkit	RKT	December 2012	Embedded	Online research support database which has specific sections on ECR funding and specific support for female orientated funding opportunities (eg L'Oreal) Increase uptake of support for staff at critical career points.
6.7	Research Focus Week	RKT	May 2013	Each May (2014 – 2017)	Short training/information sessions aimed at ECR provided to refresh memories on support available for research grants.
6.8 **	Visual Audit of Buildings	ACM + Chair MCSASWG at Penryn and Streatham	December 2013	Formal inspection annually with continuous informal monitoring.	Monitoring of our physical spaces to ensure no unintended gender bias e.g. displays, noticeboards etc and report to MCSASWG

6.9	Achieve a gender balance of internal and external speakers for events including: <ul style="list-style-type: none"> <li>• Inspiring Science lecture series</li> <li>• Module specific speakers</li> <li>• Colloquia and Seminars</li> </ul>	Seminar organisers/ HoD	October 2013	November 2014, March 2015, March 2016, March 2015	Positive role models profiled.
6.10	All staff to undertake Equality and Diversity online training	University HR and Chair MCSASWG	September 2012	March 2014, July 2015	Increase in staff completions to 81% (March 2014) Target 100%
6.11	Ensure all seminars, colloquia, meetings etc happen within core hours with video-conferencing facilities.	Meeting organisers / MCSASWG	December 2013	December 2014, July 2015	100% of events to be held within core hours (10.00 – 16.00) by July 2015.
6.12	SWARM (Simple Workload Allocation and Resource Management) used to record flexible working and ensure balanced workloads.	Head of Department	September 2012	Embedded	No unintentional bias in workload allocation.
7	<b>Providing Quality Maternity/Adoption/Paternity/Carer and Flexible Working Opportunities</b>				
7.1	Increase awareness of University policies	HR Policy and Reward Team	August 2012	June 2014 and annually thereafter	Information put on AS website to highlight the support available.
7.2	Confidential for staff maternity/adoption meetings	College HRBP / CEMPS Dean	February 2002	Embedded	Meetings in place and being used by staff.
7.3	Confidential Occupational Health Support	Occupational Health Team	February 2012	Review scheduled July 2015	Supported maternity risk assessments in place, via an online form.

7.4	Designated car share spaces implemented across the Campuses we own/manage.	Transport Management Group	Nov 2012	January 2014	Feedback from staff indicates that this has supported staff that drop children off at nursery/school with parking.
7.5	Implemented salary sacrifice scheme for child care vouchers.	HR Policy and Reward Team	Sept 2005	Provision reviewed in 2012	Information is also displayed on the web pages for parents and included in induction material for new staff.
7.6	Online maternity leave and pay calculator. Staff who are pregnant or planning pregnancy can calculate their leave and associated pay.	HR Policy and Reward Team	April 2009	n/a	This has received positive feedback as staff can access information confidentially at the stage of planning pregnancies.
7.7	Review Nursery Provision	Campus Services	August 2013	December 2014	Enhanced and increased nursery provision for staff and students. Report to University, College and MCSASWG.
7.8	Sports Camps for Children (Exeter). UofE Sport's holiday camps run during vacation time. Bookings are flexible and parents can book sessions of various lengths; for a morning, day or whole week. Provision for children between four and fourteen depending on the activity.	UofE Sport	Sept 2008	Embedded	Increased options for activities for parents to choose from in the vacation period.
7.9	Review of Adoption and maternity pay	Central HR and University ASWG	September 2013	Completed January 2014	Enhanced the previous provision.
7.10	Parents' and Carers' Network	Central HR	January 2014	January 2015	Parents' and Carers' network in place and supporting individuals from MCS.

8	<b>Ensuring Gender Balance in Outreach Activities</b>				
8.1	Outreach Activities – detailed examples provided on pages 35-37: Eg Computer Science Residential	Outreach Coordinator and Team	Various dates throughout the year	Embedded	Maintain long-standing commitment to outreach activities and report annually to the MCSASWG. Increase the number of activities supported that focuses on woman in Mathematics and Computer Science eg International Women’s Day and Ada Lovelace Day.
8.2	Partnerships	Outreach Co-ordinator	September 2010  Official Opening of Exeter Maths School September 2014	September 2015, September 2016, September 2017	Increased development of partnership with Exeter Maths School and local schools leading to increased applications.
8.3	Alumni Engagement	Development and Alumni Team	September 2011	Review with new Director of Alumni (Director commencing April 2014)	Increased engagement with the Mathematics and Computer Science alumni to provide role models.
9	<b>Share and learn from best practice across the University in relation to AS initiatives</b>				
9.1	Ensure best practice on gender matters is communicated at Departmental meetings	HoD/Chair MCSASWG	March 2012	Termly	Termly reporting of progress against action points.

9.2	Role Models Review the statistical analysis of the gender split of speakers at University events and VIP visits to ensure that we are promoting female role models and providing equality of opportunity.	Research and Knowledge Transfer and Vice Dean of Research	March 2013	Annually	Existing staff and students are used as role models in our literature, website, promotional and networking activities and to promote events eg International Women's Day / Ada Lovelace Day
9.3	Participate in sharing best practice at University and College level	MCSASWG Chair	March 2012 March 2015	Embedded March 2016, March 2017	Representation on College and University Committees in place. MCSASWG annual reporting of progress against action points to University ASWG. Action Plan on track.