## Athena SWAN Bronze department award application

Name of university: University of the West of England, Bristol (UWE)

Department: Department of Engineering Design and Mathematics (EDM)
Date of application: $27^{\text {th }}$ November 2014

Date of university Bronze and/or Silver SWAN award: Following April 2013 submission

Contact for application: Mrs Wendy Fowles-Sweet

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Departmental website address: http://www1.uwe.ac.uk/et/edm.aspx

A Bronze Award was achieved in the announcements following November 2014 submissions

Personal details have been removed from this version of the submission document.

No individuals will be identified without their consent or unless the relevant information is already publically available (for example, senior management).

Where tables or graphs show data arising from fewer than 5 people, data has been removed.

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.


Dr Catherine Hobbs
Head of Department
Engineering Design and Mathematics University of the West of England Bristol BS16 1QY

Ms Sarah Dickinson
Senior Policy Adviser
Athena SWAN Charter
Equality Challenge Unit
Queen's House
55-56 Lincoln's Inn Fields
London WC2A 3L

27 November 2014
Dear Sarah,

## Re: Application for an Athena Swan Bronze Award

I am writing as Head of Department to endorse this application for an Athena SWAN Bronze Award from the Department of Engineering Design and Mathematics at the University of the West of England, Bristol.

This is our second Bronze Award submission, after our original unsuccessful November 2013 application. We have responded to the feedback and re-written our submission to incorporate comments received; in the interim we have made much progress against our Action Plan. Highlights include a Women into Engineering outreach event and the appointment of seven new female staff across the Department, [Data removed].

A strategic aim of the University is inclusivity, with a diverse student and staff population where difference and different perspectives are explored and celebrated. The Department is fully committed to achieving this aim, and views the Athena SWAN application as an important step towards this. The Department's progress has been of significant interest within our Faculty, and across the University, to help identify and implement generic as well as more specific good practice.

We are a broad-based department covering quite distinct areas of STEM. We believe that our initial engagement with Athena SWAN via the London Mathematical Society's Good Practice Scheme has been effectively spread across the whole Department over the last 2 years, fully incorporating our engineering areas. Our SAT has a suitable balance between mathematicians and engineers. Good practice in mathematics, such as engagement with outreach, has been replicated across our engineering areas.

To help the Panel, we have now matched UWE roles onto those of a traditional university for clarity, highlighting the number of women at senior levels. We have a female Head of Department, [Data removed]. These figures are well above the national average for Mathematics or Engineering. Additionally, we have revised our Action Plan in accordance with four key Athena SWAN criteria - so actions are understood in context.

- Communication (C)
- Career Progression (CP)
- Data Management (DM)
- Organisation and Culture (OC)

As Head of Department I have been involved in the process from the start as a SAT member, then the Chair for 12 months when our original (female) Chair was seconded to a prestigious RAEng Fellowship. I have participated in national workshops on Athena SWAN through my work with the LMS on Good Practice. I aim to promote an open and inclusive culture through my own actions and behaviours, and to communicate this to staff and students. I am fully committed to the aims and objectives of Athena SWAN, and to ensuring implementation of our Action Plan. I am delighted with the engagement within the Department fostered by our SAT, and feel that we have strongly committed to the Athena SWAN principles.

Yours sincerely,
Catr- tubos.

Dr Catherine Hobbs

## 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.

Table 1: Description of the EDM Self-Assessment Team (SAT) Members

| SAT Member | Job Title | Time at <br> UWE | SAT Perspective | SAT Position |
| :--- | :--- | :--- | :--- | :--- |
| Dr Lisa Brodie <br> Engineering Management <br> Manufacturing <br> CEng, MIET | Senior <br> Lecturer/Programme <br> Manager | 3 years | Full time, flexible <br> working to meet <br> school hours | Programme Leader <br> Representative |
| Mrs Wendy Fowles-Sweet <br> Aerospace Engineering <br> CEng, MRAeS | FET CPD Director / <br> EDM Programme <br> Manager | 4 years | Full time, part time <br> after maternity | Chair / CPD <br> Representative |
| Dr Mark Hansen | Research Fellow | 2 years (+3 <br> years PhD) | Flexible working to <br> meet school hours. | Early Career <br> Researcher <br> Representative |
| Dr Catherine Hobbs <br> Mathematics <br> FIMA, CMath | Head of Department | 4 years | Full time, normally one <br> day a week home <br> working | Head of Department |
| Dr Alison Hooper <br> Mathematics | Associate Head of <br> Department for <br> Student Experience | 20 years | Full time as Head <br>  <br> Statistics; now 0.8 FTE. | Management <br> Committee <br> Representative |
| Michael Miller <br> AMIMA | PhD Student | 1 year PhD <br> Student, 3 <br> years UG | New parent, flexible <br> hours for childcare | PhD student <br> Representative |
| Prof Anthony Pipe | Deputy Director, BRL | 27 years | Full Time | Professorial <br> Representative |
| Dr Vicky Swinerd | UWE Athena SWAN <br> Officer | 2 years | Home work; attends <br> Women's Forum | HR Representative |
| Dr Deirdre Toher <br> Statistics <br> FRSS | Lecturer | 5 years | Occasionally works <br> from Ireland | Lecturer <br> representative |
| Professor Alan Winfield <br> Electronic Engineering <br> CEng, MIET, MIEEE, MloD | Director of Science <br> Communication Unit | 20 years | Flexible working while <br> disabled child was <br> young | Research Centre <br> Director <br> Representative |
| Prof Quanmin Zhu <br> CEng, MIET | Editor for two <br> international <br> journals | 8 years | Full time and flexible <br> working | Professorial <br> Representative |

IET: Institution of Engineering and Technology
IMA: Institute of Mathematics and its Applications
RSS: Royal Statistical Society
F: Fellow
M: Member
CEng: Chartered Engineer

IEEE: Institute of Electrical and Electronics Engineers
RAeS: Royal Aeronautical Society
IoD: Institute of Directors

AM: Associate Member
CMath: Chartered Mathematician
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.

## Self-assessment process and meetings

Early preparation for Athena SWAN included a 2012 benchmarking survey on departmental policies and procedures supporting women in mathematics, for the London Mathematical Society. The results indicated a generally good level of practice, although there were some areas the department needed to develop, such as:

- implementing procedures for gathering evidence (quantitative and qualitative)
- formalising organisational approach to acting on evidence
- implementation across all Engineering Design and Mathematics (EDM)

As the University of the West of England had joined the Athena SWAN scheme, EDM members on the University's SAT decided to submit the Department for a Bronze Award, to formalise the process of reviewing and implementing good practice for its female staff, building on the feedback from the LMS report.

The EDM SAT formed late 2012, targeting a November 2013 submission. It liaises with Human Resources, the Equality and Diversity Unit, Academic Services, the Graduate School and others to secure and sustain the required data. It:

- Includes the UWE Athena SWAN Officer
- Is maximum two thirds female, minimum one third male
- Holds regular meetings (normally every 4-6 weeks)
- Approved its Terms of Reference in January 2014
- Has a breadth of Representatives - staff and student
- Reports to University SAT (normally quarterly)

Its remit within the Department's structure is to make recommendations to the Departmental Management Committee, publicise Athena SWAN, disseminate good practice across EDM (and beyond) through formal and informal interactions with students and staff, write applications, monitor action plans, and ensure participation in UWE Athena SWAN events, and in regional / national networking meetings. Sustained Departmental funding has been allocated. (Actions C1.1-C1.7)

Following an unsuccessful November 2013 submission, it was agreed a resubmission should be made. The SAT role in resubmission includes:

- Retaining the majority of original SAT representatives to support the Bronze Award resubmission
- Providing answers to queries arising from original submission
- A review of actions completed, on-going and further actions required to clarify the three year action plan, and beyond.


## Evidence to support the Action Plan

All the statistics used within the first submission have been reviewed and updated to include 2013 and 2014 data where available. Alongside the general data collection needed to update the statistics from the original submission, further use has been made of the August 2013 staff questionnaire - developed specifically to explore Athena SWAN issues by Dr Deirdre Toher, a member of the SAT and expert on questionnaire design and analysis. This was anonymous and voluntary, with 43 from approximately 100 staff responding, and 36 provided demographic data. The questionnaire covered the department's culture, awareness of initiatives, training, flexible working, career breaks and promotion opportunities, as well as collecting data on professional body membership, caring responsibilities and external roles.

In summary:

- Responses were split across the three disciplines of the Department in close proportion to the staffing in those areas. The response by gender also closely matched the actual balance within the Department.
- The results of the questionnaire were analysed and used to inform this submission and action plan. Data from the questionnaire has been presented throughout the submission where appropriate.
- Note that gender information was collected for cross-tabulation in all questions. In some cases small numbers could then identify individuals so where appropriate we have presented such information without including the gender of the respondents.

This questionnaire will be re-run normally every two years or as appropriate to capture improvements in practice as we move towards a future submission to Athena SWAN - providing a suitable interval for Departmental initiatives to take effect. (Action C1.8)

## Communication of Athena SWAN activities

Various channels were identified and used to ensure wide communication opportunities - not least encouraging members of the SAT to talk with their colleagues. Athena SWAN is:

- Discussed at regular informal EDM forum meetings.
- Featured in the quarterly departmental staff newsletter.
- Shown on the Departmental webpages, which also include related activities, e.g. EDM signed up as a Supporter of the LMS Good Practice Scheme April 2013
- Noted on the Good Practice webpage, with the EDM SAT members identified for consultation.
- Explicit in Department publicity material including web-based information, brochures and marketing banners
- Related activities include the Head of Department organising two national workshops on Good Practice for the LMS; giving presentations on supporting good practice at the Isaac Newton Institute, Cambridge and at the Royal Society, London, and facilitating an LMS workshop on Unconscious Bias.
The internal questionnaire found that in 2013 only $50 \%$ of staff were aware of the on-going initiatives such as Athena SWAN and the LMS Good Practice Supporter status, and less than one third were actively engaged in such initiatives (Table 28, page 49). Further actions are required to ensure wider communication. (Actions C1.1-C1.2)


## Consultation within UWE and External Activities

Recognising the breadth of Athena SWAN, the SAT identified and worked with a range of departments and institutions to inform this application and its long term Action Plan. This included consultation with:

- Successful UWE departmental SATs
- UWE Central Committee - regular meetings
- Athena SWAN colleagues from other Universities and at the Swansea September 2014 Conference.
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.

The SAT Chair has an annual work load allocation to prepare applications, monitor / progress the action plan and develop and sustain dissemination of the Athena SWAN principles within EDM and beyond.

To ensure fresh ideas whilst maintaining a consistent approach, SAT membership rotates on a rolling 2 year basis (starting April 2015), with approximately half the team changing annually.

In addition, an Athena SWAN "Champion" is planned, to act as the SAT ambassador and drive forward staff participation. (Action C1.8)

The SAT will continue to meet with its current regularity to monitor the action plan, delegate work, ensure processes sustainability, the continued validity of the ToRs, and prepare for future submissions to a higher level. (Actions C1.3, C1.9 and DM1)

| Actions from Section 2 | Action <br> Plan Item |
| :--- | :--- |
| Encourage discussion and input from a wider group of staff | C1.1 |
| Regular communication to staff and students of activities led by the EDM Athena <br> SWAN SAT | C 1.2 |
| Encourage wider involvement in SAT | C 1.3 |
| Promotional items for general use and Open Days | C 1.4 |
| Promotion in other faculty and UWE departments | C 1.5 |
| Make links with other Engineering and Maths departments in the region | C 1.6 |
| Regularly run staff questionnaire to monitor improvements | C1.7 |
| EDM Athena SWAN "Champion" to be identified, to be informal "face" of SAT | C1.9 |
| SAT to monitor and support Athena SWAN action plan after Bronze re-submission |  |
| Collection of Department data for three-year re-application for the Athena SWAN <br> Bronze award, or, if ready, for the Silver award | DM1 |

## 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.

The Department of Engineering Design and Mathematics (EDM) was formed in 2010 as an amalgamation of the Mathematics, and Design and Engineering Departments; it is housed in four buildings on the same campus at UWE (a new building has recently been planned: Action OC2.4).

It has around 100 staff, including academics and postdoctoral researchers, and around 1500 students. Most of the students are undergraduates, with approximately 130 PGT / CPD students and a handful of PGR students. Staff are involved in teaching, research, knowledge exchange, business engagement and outreach.

Figure 1 shows how EDM fits within the Faculty of Environment and Technology, one of the four UWE Faculties.
(106)

Figure 1: EDM as part of the Faculty of Environment and Technology


The Department is run by the Management Group (Figure 2):

- Head of Department
- Six Associate Heads of Department (AHoD), each with separate subject/portfolio responsibilities
- Research Centre Directors, who line manage researchers.

Their appointments have followed the UWE departmental promotions process - all are permanent role holders.

Figure 2: Organisational Chart [names removed]


The departmental culture is supportive and inclusive for staff, evidenced by our 2013 staff questionnaire (Table 19, page 36); this found that $86 \%$ of respondents felt that their working atmosphere was friendly and supportive, and $90 \%$ agreed that their line manager was supportive.

The Department aspires to excellence in the integration of two separate disciplines; mathematics and engineering - and until end of 2013/2014, also product design. Roughly, the department is split 25\% Mathematics, 60\% Engineering, 15\% Product Design. Each discipline has different characteristics in terms of staff and student gender balance, which we have sought to highlight here: meaning that some of our actions need to be targeted at particular areas. The spread of taught courses across the disciplines is shown in Table 2.

(* Discontinued from 2012)

## EDM Teaching

Teaching is delivered by high quality practitioner and doctorate level staff, whose skills are recognised (nationally and internationally), contemporary and relevant to their disciplines and employer organisations. We focus strongly on student experience, using innovative pedagogy and technology enhanced learning to provide delivery in a hands-on, practical and employer-facing environment.

## EDM Research Groups

EDM has an active research environment, including three Centres with dedicated laboratory spaces and two specific Groups of academic staff. Nineteen staff [data removed] submitted to the REF2014, most in UoA General Engineering, with some in other UWE UoAs. The Department strategy supports new and existing staff to input to future REFs, with at least 7 more female staff expected to contribute to REF2020.

## Research Centres (have formal management structure and dedicated labs)

- Bristol Robotics Laboratory -incorporating the Centres for Machine Vision and Bio-Energy.

The Bristol Robotics Laboratory (BRL) is a joint UWE and University of Bristol (UoB) laboratory. It is an interdisciplinary lab drawing on robotics, electrical and mechanical engineering, computer science, psychology, cognitive science, sociology and anthropology

- Institute for Biosensing Technology: (co-Director Prof Janice Kiely)

IBST develops academic / industrial partnerships, creating novel biosensing technology addressing healthcare, agri-food, environmental and security sector challenges; a joint initiative between UWE and UoB, strongly interdisciplinary, drawing on complementary skills from biology, chemistry, sensor science and engineering, as well as from expert end-users, e.g. clinicians, health professionals, etc.

- Science Communication Unit: A UWE Centre of Excellence combining teaching, research and practice. With an interdisciplinary team at various career stages, over three quarters of staff are female.


## Research Groups (informal groupings of related staff)

- Engineering, Modelling and Simulation Group
- Applied Statistics Group


## Knowledge Exchange

Staff engage in consultancy with industry; with generally 5 or 6 Knowledge Transfer Partnerships running at any one time. The Department is also involved in two funded Innovation Networks (iNets) - [data removed] - seeking to promote innovation in SMEs via knowledge exchange with academia.

There is an active programme of CPD short courses offered to industry, many of which are part of our Engineering Career and Capability Development Framework (ECCDF) - led by programme leaders [data removed]. ECCDF modules can be used towards professional qualifications, e.g. Chartered Engineer recognition, as well as academic programmes. The aim is to become a key provider in advanced engineering workforce development.

| Action from section 3 a | Action <br> Plan <br> Item |
| :--- | :--- |
| Build gender equality concepts into the plans for the new building planned for <br> Engineering: Focus will be Equality in STEM | OC2.4 |

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.

## Student data

(i) 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 entire 'Student Data' section indicates that our chief issue is getting sufficient women to enter Engineering programmes, and our actions are principally aimed at addressing this issue. (Box at the bottom of p19.) Since our previous submission we have reviewed and improved the gender profile shown on our marketing material, and ensured a good gender balance of staff attending open days. We have also organised successful women into engineering outreach events. These actions appear in our new action plan as we intend to review or progress these further.

EDM runs a Foundation Programme, with sub-routes in Engineering and in Mathematics. Students completing this year successfully can enter into a number of programmes, including various types of BEng/MEng Engineering and BSc Mathematics. Part time students on the foundation years are rare.

Table 3 and figure 3 show the numbers of students on Foundation programmes benchmarked against HESA data for engineering foundation courses.

Table 3: Numbers and proportions of students on Foundation programmes 2010-14

| Year | Full time (FTE)* |  |  | Part time (FTE) |  |  | Total \% <br> Female | National \% Female |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Female | Total | \% Female | Female | Total | \% Female |  |  |
| 10-11 | 5 | 68 | 7\% | [Data removed] |  |  | 8\% | 6\% |
| 11-12 | [Data removed] |  |  |  |  |  | [Data removed] |  |
| 12-13 | 15 | 84 | 18\% |  |  |  | 18\% |  |
| 13-14 | 10 | 98 | 10\% |  |  |  | 10\% |  |

Full-time equivalent (FTE) data was rounded to the nearest integer. Percentages of females are calculated from FTE values before rounding. *Note that for PT students integer figures are 0 if there is $<0.5$ FTE on a course. However, the $\%$ is calculated using the non-integer figures (e.g. if there is one female on a course studying for only 2 days a week she is represented as '0' rather than '0.4'. If she is the only person on the course then the data is displayed as \# female: 0; total: 0; \% female: $100 \%$ ).

Figure 3: Female representation on Foundation courses 2010-2014 (FTE)

[Some data removed]
In 2012/13 the Mathematics Foundation Year sub-route began, resulting in a substantial increase in female student recruitment: 6 were foundation maths students ( $50 \%$ of the Mathematics cohort). The numbers are not quite so high for 2013/2014; however, they are still substantially above the national average.
(ii) 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.

Table 4 and figure 4 show that the percentage of female students within EDM is slightly below the national average. Further breakdown shows that the percentage in the engineering disciplines is lower than the national average (Table 4), with Full Time (FT) student numbers better than Part Time (PT) numbers. The
latter are almost all sponsored on day-release from their employers, so we are working directly with employers as well as applicants to encourage more female participation. (Action C2.1)

The gender balance in Mathematics, although levelling, is consistent with the national average. However, the current trend is being closely monitored. (Action C2.2)

Students on BEng achieving an upper second or above at the end of their second year have the option to progress to MEng Engineering. Of the women at level 3 of our BEng programmes, disproportionally few stay on to the MEng year. A working group is being created to collect data to understand whether this is a conscious decision to enter the employment market with a BEng; if not, to take suitable action. (Action OC3.1)
(171)

Table 4: Undergraduate male and female student numbers

## [Data removed]

Figure 4: Female representation on undergraduate courses (FTE)


Courses are benchmarked against HESA data for 12-13. Where section headings cover more than one JACS code (e.g. we run Engineering courses under JACS codes H1, H3, H4 and H6) we have weighted benchmarking figures for each JACS code by the number of students on those courses. Design courses are benchmarked against JACS code W240: Industrial/Product Design.

| Actions from section $\mathbf{3}$ b ii) | Action <br> Plan <br> Item |
| :--- | :--- |
| Work with employers to encourage more PT female applicants | C2.1 |
| Trend monitoring for gender balance, in both Mathematics and Engineering | C2.2 |
| Review any gender differences around BEng/MEng transition, and decision to progress <br> to Masters | OC3.1 |

(iii) Postgraduate male and female numbers completing taught courses - full and parttime - comment on the female:male ratio compared with the national picture for the discipline. Describe any initiatives taken to address any imbalance and the effect to date. Comment upon any plans for the future.

From 2014/2015, all PG taught (Full time / part time) courses will be in Engineering. Numbers in Mathematics are low as the programme ceased in 2012/2013, decreasing the overall number of PGT students and adversely affected the gender profile. Table 5 and figure 5 show a similar gender position is seen as with undergraduates. Many PT students are pre-determined by company selection. (Action C2.1)

Table 5: Postgraduate male and female student numbers
[Data removed]

Figure 5: Female representation on postgraduate taught courses (FTE)
[Some data removed]


[^0]EDM provides continuing professional development (CPD): mostly accredited courses, targeting workforce development. Advanced Engineering organisations encourage employees - on merit, not gender - to module gather towards professional capability / recognition - pre-determining our intake. Historically, female intakes have been small, but female attainment is high. Working alongside employers, we will continue to encourage female applicants. (Actions C2.1, C2.3, C2.4 and OC3.4)

Tables 6 and 7 show entrant and attainment data from 2009 onwards.

Table 6: CPD Entrants 2009-2014

| Year | Entrants | Female | Male |
| :--- | :--- | :--- | :--- |
| $2009 / 10-2012 / 13$ | 72 | 6 | 66 |
| $2013 / 2014$ | 13 | [Data removed] |  |
| $2014 / 2015$ | 21 |  |  |

Table 7: MSc Graduates through CPD programmes 2010-2014

| Year | *MSc <br> Graduates | Female | Male |
| :--- | :--- | :--- | :--- |
| $2010 / 2011$ | 7 | [Data removed] |  |
| $2011 / 2012$ | 10 |  |  |
| $2012 / 2013$ | 7 |  |  |
| $2013 / 2014$ | 6 |  |  |
| Distinctions | $25 \%$ |  |  |
| Merits | $62 \%$ |  |  |
| Passes | $13 \%$ |  |  |

*Also large number of PG Diploma and PG Certificates as final (not interim) awards

| Actions from section 3 b iii) | Action <br> Plan <br> Item |
| :--- | :--- |
| Work with employers to encourage more PT female applicants | C2.1 |
| Review promotional material, particularly around Engineering courses | C 2.3 |
| Review promotional material for CPD/part time study, especially at PG level | C 2.4 |
| Increase female participation in lifelong learning activities run in the Department | OC3.4 |

(iv) 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 discipline. Describe any initiatives taken to address any imbalance and the effect to date. Comment upon any plans for the future.

EDM's postgraduate researchers are all within Engineering. Table 8 and Figure 6 show EDM is above the national average, although the numbers of PGR students are very small. We will continue to ensure female PhD students have access to mentoring and other support mechanisms. (Actions OC3.2 and CP2.1)

Table 8: Data on PGR numbers by gender
[Data removed]

Figure 6: Female representation on postgraduate research courses (FTE)

## [Data removed]

Courses are benchmarked against HESA data for 12-13.

| Actions from section 3 b iv) | Action <br> Plan <br> Item |
| :--- | :--- |
| Mentoring for female PGR students (outside supervision team) | OC3.2 |
| Increase involvement in the Women Researcher's mentoring scheme. | CP2.1 |

(v) 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.

## Foundation Years

EDM has two pathways into Foundation years: Engineering and Mathematics (page 11). In some years, proportionally fewer females register than are offered places - figure 7. This is being monitored to see whether this is a trend or an occasional anomaly. (Action C2.2)

Figure 7: Proportion of females at different stages of the recruitment process for foundation (2010-2014) [Some data removed]

Proportion of females at different stages of recruitment for foundation courses (1014)


## Undergraduates

Figures 8 and 9 show the undergraduate data suggest that gender is not a major factor in moving through the application process in any of our disciplines. Our actions around promotional material and Open Days are relevant. (Actions C2.3 and C2.4)

Figure 8: Proportion of females at different stages of the recruitment process for UG taught courses (20102014)


## Postgraduates Taught

Numbers of PGT applicants are decreasing for both genders (Figure 9). As with PT UG and CPD courses, the issue is encouraging women to apply rather than any problems with them being accepted into PG programmes. (Action C2.1)

Figure 9: Proportion of females at different stages of the recruitment process for PG taught courses (whole department)
[Some data removed]


## Postgraduate Research

Again, numbers are small, yet consistent (Figure 10). The issue remains attracting applicants rather than with the conversion process. (Actions C2.1 and C2.3)

Figure 10: Proportion of females at different stages of the recruitment process for PG research courses (Engineering)
[Data removed]

| Action from section 3 b v) | Action <br> Plan <br> Item |
| :--- | :--- |
| Work with employers to encourage more PT female applicants | C 2.1 |
| Trend monitoring for gender balance, in both Mathematics and Engineering | C2.2 |
| Review promotional material, particularly around Engineering courses | C 2.3 |
| Open Day staffing and presentations demonstrate diversity | C 2.4 |

(vi) 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.

Figure 11 shows:

- Female students attain more $1^{\text {st }}$ class degrees than male students
- In Mathematics and Design, females attain more good honours ( $1^{\text {st }}$ or $2: 1$ ) than males; in Engineering this is marginally reversed
- Female students are less likely to get $3^{\text {rd }} s$ than their male equivalents.

Figure 11: Female and male undergraduate attainment (09/10 to 12/13)

## [Data removed]

This whole section indicates that our chief issue is getting sufficient women to enter Engineering programmes, and our actions are principally aimed at addressing this issue. (Actions C2.1-C2.8 and OC3.1 - OC3.2)

| Actions from Section 3 b vi) | Action <br> Plan <br> Item |
| :--- | :--- |
| Work with employers to encourage more PT female applicants | C 2.1 |
| Trend monitoring for gender balance, in both Mathematics and Engineering | C 2.2 |
| Review promotional material, particularly around Engineering courses | C 2.3 |
| Review promotional material for CPD/part time study, especially at PG level | C 2.4 |
| Open Day staffing and presentations demonstrate diversity | C 2.5 |
| Open Day rescheduling | C 2.6 |
| Schools' Outreach activities to target girls | C 2.7 |
| Ensure alternative routes to higher degrees and Chartered Engineer status are <br> understood by UG students - either traditional academic routes or work-based <br> opportunities | $\mathrm{OC3.1}$ |
| Review any gender differences around BEng/MEng transition, and decision to progress <br> to MSc | $\mathrm{OC3.2}$ |
| Mentoring for female PGR students (outside supervision team) |  |

## Staff data

(vii) 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 figures below show the percentages of female and male academics (statistics are headcount from February of the given year).

The proportion of female staff at higher grades across all subject areas is quite high (figure 12), with women being represented well at Associate Professor and Professor grades. Although the number of women at senior lecturer level has decreased in all areas, this is due to women benefitting from a promotion round to Associate Professor (e.g. in Engineering).

Figure 12: Whole Department - Proportion of females in all academic roles (2011-14)


Key to figures 12-16, 18-20, 22-23, tables 10 and 13:

- $R A=$ Research Associates
- L = Lecturers, Associate Lecturers and Research Fellows
- $S L=$ Senior Lecturers and Senior Research Fellows
- $A P=$ Associate Professors, Assistant Heads of Department and Deputy Heads of Research Centres
- $\quad P=$ Professors, Academic Directors and Directors of Research Centres, HoD

Figure 13: Engineering - Proportion of females in all academic roles (2011-14)
[Data removed]
Figure 14: Design - Proportion of females in all academic roles (2011-14)
[Data removed]

Figure 15: Mathematics - Proportion of females in all academic roles (2011-14)
[Data removed]
Figure 16: Pipeline - whole Department 2013/2014

## [Data removed]

The pipeline shows a good conversion from PGT to PGR, but a decrease of women between PGR and RA. The support UWE and EDM offers - graduate school courses, access to staff development money, etc shows we are preparing PGRs for academia. The flipside, our determination to forge ever better industry links, means our female postgraduates are just as likely to enter industry as stay in academia. However, the high female PGR proportion represents small numbers, so the data is apt to change annually. There is also a drop between $L$ and $S L$, but a significant increase from SL to AP/P, giving an overall upward trend, as the pipeline progresses up the levels of seniority. Recent recruitment, mainly at SL level, has been predominantly female, so we expect that re-running this pipeline data in 2014/15 will show improved SL figures since EDM embarked on the Athena SWAN process.

Against Mathematics benchmarking data the proportion of staff at Lecturer and Senior Lecturer grade is higher than the national average - Figure 17.

Figure 17: Benchmarking data from LMS: Proportion of females in academic roles in mathematics in UK HEIs (2011)


Against the Engineering benchmarking data (the Engineering Professionals Council) - Table 9, EDM performs very well. The range across all of engineering is $11 \%-15 \%$ female non-professors and $0 \%-4 \%$ female professors: encouragingly, EDM does not have this extreme form of leaky pipeline. Nevertheless, we aim to increase female representation as shown by actions throughout this document.

Table 9: Comparison across the sector in England averaged over 4 years:

|  | \%Female <br> Professors | \% Female non- <br> Professors | \% All staff who are female |
| :--- | :--- | :--- | :--- |
| Sector Average - <br> Engineering | $1 \%-4 \%$ | $11 \%-15 \%$ | $10 \%-13 \%$ |
| Sector Average: <br> Mechanical <br> Engineering | $4 \%$ | $15 \%$ | $13 \%$ |
| EDM - Engineering* | $\mathbf{1 3 \%}$ | $\mathbf{1 6 \%}$ | $\mathbf{1 5 \%}$ |

*Aerospace, Mechanical, Motorsport, Electronics, Robotics, Automotive

UWE is considering promotion on the grounds of teaching or knowledge exchange excellence in addition to research excellence, at least at Associate Professor level. This could potentially benefit a significant proportion of the EDM female staff. The Department is currently reviewing who may benefit from this promotion route. (Actions CP2.2-CP2.5)

Since our last submission, UWE HR have developed a new promotions process, which we are communicating to all staff. The department has also begun a dialogue with HR to encourage the University to run unconscious bias training. (Action OC1.2) (More information on both in section 4).

| Action for section 3 b vii) | Action <br> Plan <br> Item |
| :--- | :--- |
| Staff awareness of new promotion opportunities in teaching | CP 2.2 |
| Inform all staff of career pathways | CP 2.3 |
| Encourage staff involvement in career information gathering towards promotion <br> application | CP 2.4 |
| Encourage UWE to adopt a "promotion round" approach, whilst supporting female and <br> male staff through the existing process | $\mathrm{CP2.5}$ |
| Increase awareness of unconscious bias and how to avoid it: Training in unconscious <br> bias | OC1.2 |

viii) 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.

The data supports the Department's view that progress is sound, although related actions throughout this document exist to support staff development and ensure no complacency.

1. There were no leavers of either gender from the professorial grade in 2010-2013
2. [Data removed]
3. There do not appear to be any trends in the data with respect to gender.

Figure 18 and Table 10 show changes at RA - to be expected as careers develop, whilst the increase at APgrade was due to promotion.

Leavers returned no exit questionnaires in 2010. 2011 leavers returned two questionnaires and one in 2012. None reported any issues of relevance to Athena SWAN. To address the low return rate for exit questionnaires, the University has formulated an online questionnaire. UWE is also running a pilot exit interview project for academics in 2014-15. (Action CP2.8)

Figure 18: Turnover in the Department by role and gender (2010-13)

## [Data removed]

Key: For $x$-axis, see page 20

## [Data removed]

Key: For table headers, see page 20

- (Headcount noted in brackets)
- 'Voluntary' includes Resignation, Early Retirement and Voluntary Severance
- 'Non Voluntary' includes End of Contract, Dismissal, Redundancy, Normal Retirement, III Health or Death in Service
- a 'End of contract' is a subset of 'Non Voluntary' turnover
- ${ }^{b}$ UWE has a redeployment scheme for staff reaching the end of fixed term contracts. 'Redeployed' is a subset of the 'End of contract' data.

| Action for section 3 b viii) | Action <br> Plan <br> Item |
| :--- | :--- |
| Reasons for leaving mitigated | CP2.8 |

SECTION 3 WORD COUNT: 1991

## 4. Supporting and advancing women's careers: maximum 5000 words Key career transition points

a) 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.
(i) 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.

We have reviewed data collection, formatting and commentary in this section in response to the Panel's comments. Only one year of data is available - subsequent applications will show more.

Figure 19 considers the external applicant recruitment process for roles advertised during 2012/2013. The data shows the process worked from application to shortlist, but there were not enough female applicants to achieve appointments. Subsequently, in 2013/2014, a further 10 staff have been appointed, seven of whom are female.

Figure 19: Data from external applicants to roles that appeared on www.uwe.ac.uk/jobs

## [Data removed]

Key: For $x$-axis, see page 20, plus

- KTP = Knowledge Transfer Partnership (industrial researcher)
- NB. 'L/SL' denotes a role which was advertised for either Lecturer or Senior Lecturer candidates. The eventual grade of the role will depend on the skills and experience of the appointee.
(ii) 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.

The academic career structure at UWE is described on page 32. Promotion occurs via application to a specific role, which may be advertised either internally or both internally and externally, or via a re-grading process. The need for new posts in a particular area is driven by requirements for teaching, research and management.

Figure 20 considers the internal applicants applying for roles advertised externally during 2012/2013. All 5 posts were in Engineering. [Data removed] This is less than the proportion of eligible female candidates in Engineering.
(105)

Figure 20: Data from internal applicants to roles that appear on www.uwe.ac.uk/jobs:
[Data removed]
Key: For $x$-axis, see page 20, plus

- 'L/SL' denotes a role which was advertised for either Lecturer or Senior Lecturer candidates. The eventual grade of the role will depend on the skills and experience of the appointee.

Table 11 shows other forms of promotion / re-grading / internal secondment - that is, anything other than securing a job though a role advertised on www.uwe.ac.uk/iobs. It includes progression, sideways moves and adoption of more responsibility without re-grading, and transition between research and teaching. For example, in 2012 we advertised the role of Associate Head of Department internally. [Data removed]

Table 11: Progression outside www.uwe.ac.uk/jobs (2012-2013):

## [Data removed]

In terms of promotion, our internal survey indicates that only 50\% of staff are aware of the promotion process and criteria, although females are more aware than males (Table 12). We aim to ensure that all are aware of the career structure and are prepared for promotion opportunities. (Actions CP2.2 CP2.3, CP2.4)

Overall, EDM is increasing staff awareness through greater communication. (Actions C1.1 - C1.3)
Table 12: Internal Survey - Awareness of promotion criteria and procedures

|  |  | Level of knowledge |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Good | Some | Little | None |  |
| Awareness of UWE's promotion procedures | Male | [Data removed] |  |  |  |  |
|  | Female |  |  |  |  |  |  |
|  | Prefer not to say |  |  |  |  |  |  |
|  | Total | 7 | 12 | 12 | 5 | 36 |
| Awareness of UWE's promotion criteria | Male | [Data removed] |  |  |  |  |
|  | Female |  |  |  |  |  |  |
|  | Prefer not to say |  |  |  |  |  |  |
|  | Total | 7 | 12 | 12 | 5 | 36 |


| Actions for section 4 a ii) | Action <br> Plan Item |
| :--- | :--- |
| Encourage discussion and input from a wider group of staff. | C1.1 |
| Regular communication to staff and students of activities led by the EDM Athena <br> SWAN SAT. | C1.2 |
| Encourage wider involvement in SAT. | C1.3 |
| Staff awareness of new promotion opportunities in teaching | CP2.2 |
| Inform all staff of career pathways | CP2.3 |
| Encourage staff involvement in career information gathering towards promotion <br> application | CP2.4 |

b) 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.
(i) 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

Many of the recent posts have been in Engineering, where the pool of potential applicants is already deficient in women, particularly as a PhD is generally sought. Adverts now carry the Athena SWAN logo to indicate that UWE has signed up to the Charter. More effort is being made to promote EDM as inclusive and diverse, and to publicise vacancies via women's networks. (Actions CP1.1-CP1.4)

The female head of department participates throughout the whole recruitment process. This ensures at least one woman is always involved - and often more than one. However, unconscious biases can be held by anyone, regardless of gender; specific training in this area for all staff involved in short-listing and interviewing is planned. (Actions CP1.3 and OC1.2)

Panel Training is available to all panel members, and is mandatory for Panel Chairs.

| Actions for section 4 b i) | Action <br> Plan Item |
| :--- | :--- |
| Promote department as inclusive and diverse. | CP1.1 |
| Actively target women's networks to advertise vacancies | CP1.2 |
| Equality in short-listing and at interview | CP1.3 |
| EDM included in HR "positive action" agenda | CP1.4 |
| Increase awareness of unconscious bias and how to avoid it :Training in Unconscious <br> Bias | OC1.2 |

(ii) 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.

EDM makes use of UWE's training programmes, and encourages attendance - it also develops its own in key topics.

## UWE Internal training for staff

UWE ensures that newly recruited teaching staff have access to teaching qualifications through the Academic Development Programme (ADP). Time allocated for ADP is ring-fenced to ensure that staff can complete the programme successfully. The strand of teaching qualifications for staff on 0.5 FTE and above, leads to a PGCertHE. Additionally, a 'Mini ADP' is available to research staff with teaching responsibilities and to staff appointed as Hourly Paid Lecturers (HPL). Thirteen engineering staff have completed or will shortly complete their ADP or mini-ADP in the past three years [Data removed].

EDM is involved with a Faculty initiative to encourage the development of more Professors and Associate Professors, initiated in 2013/2014 by the Associate Dean of Research. Table 13 shows that women have been less likely than men to undertake management training offered by the university.

Table 13: Training courses undertaken per head: information from the UWE Learning \& Development Centre (2010-13)

LDC training attendance data (4 years: 2010-13)
[Data removed]

- Key: $x$-axis, see Page 20

The Department also provides management training from time to time, which may be offered to all AP/P grade staff, or all Programme Managers (SL). To explore this further our internal survey captured the awareness of available training (Table 14).

Table 14: Awareness of training available at UWE
[Data removed]
The Department is currently raising the profile of internal training, particularly related to gender awareness, equality and diversity, and female management training. (Action OC1.1)

## UWE internal training for Graduate students

UWE's Graduate School offers free Skills Development Workshops incorporating many of the themes contained in Vitae's Researcher Development Framework. Attendance is monitored by gender and, given that female students and staff represent less than $10 \%$ of the overall numbers, Table 15 shows significantly more female attendance.

Table 15: Graduate School Workshop attendance by EDM students and staff in the last 3 years

|  | Female | Male | Total |
| :--- | :--- | :--- | :--- |
| Students | $51 \%(32)$ | $49 \%(31)$ | 63 |
| Staff | $43 \%(10)$ | $57 \%(13)$ | 23 |

The Faculties' and UWE's Learning and Development Centre co-hosts the well-established Researchers' Forum. This meets twice a year, and the content alternates between suggestions for staff development and information from UWE's senior management on key issues (e.g. the REF and appraisal process). The Forum has initiated training courses for early career researchers on a diverse range of topics including career progression and presenting research papers. It is advertised by the Associate Dean for Research in each Faculty, on University website, and by e-mail to all researchers. Five staff ([Data removed]) attended from EDM in 2011-12, [Data removed].

## Mentoring Schemes

The 'Women in Research Mentoring Scheme' has been running across UWE since December 2011 and is recognised in the Workload Model which assigns mentors and mentees 15 hours per year to these activities. It specifically focuses upon the career development of women in line with the Athena SWAN Charter.

Both male and female mentors are recruited to work with female mentees and all participants received inhouse training before being carefully matched into mentor/mentee pairs considering factors such as:

- Achievements and aims of participants
- Work area
- The work-based experience of the mentor
- Mutual benefit
- Conflicts of interest
- Gender of mentor (on mentee's request)

The pilot 'Women in Research Mentoring Scheme' supported 23 active mentoring pairs, exceeding its target of 10-20 pairs. [Data removed]. Interim evaluation results were very positive: $100 \%$ of participants would like to continue with the scheme and would recommend it to a colleague. When applications were opened for the second wave in Jan 2013 EDM's participation increased: [Data removed]. One third of staff commented in the staff questionnaire that an absence of mentoring was detrimental to their careers (although we did not break down this question by gender). Although there was no participation in 2014, this was because no one was eligible - membership for one year only. Increased participation is expected in the mentoring scheme at the next call, particularly in support of new staff members. (Action CP2.1)
(255)

## Early Career Research Support

UWE offers annual Early Career Researchers Grants ( $£ 5,000-£ 20,000$ ) from the Strategic Research Development Fund to support early career academics to undertake preliminary research with a view to prepare research applications to external funding bodies (Table 16). The scheme is advertised by email,
and potential applicants are invited to a briefing meeting to clarify the criteria and application process. UWE supports grant winners in managing and developing proposals for further external funding.

Table 16: Early Career Researcher Grants

| Year | F/M | Role | Value of award |
| :--- | :--- | :--- | :--- |
| $2011-12$ | M | Senior Lecturer | $£ 17,294$ |
|  | F | Senior Lecturer | $£ 17,512$ |
|  | M | Lecturer | $£ 14,435$ |
|  | M | Lecturer | $£ 16,516$ |
| $2013-14$ | M | Lecturer | $£ 18,224$ |
|  | M | Lecturer | $£ 8,200$ |
| $2014-15$ | M | Lecturer | $£ 14,900$ |
|  | M | Lecturer | $£ 18,960$ |

These grants are only available for the first two years of an Early Career Researcher's role. The distribution reflects the gender balance of new appointments in the 'early career' bracket over the last 4 years; there were no eligible females in 2014/2015. The opportunity will continue to be promoted to all early career staff and new starters. (Action CP2.9)

| Action for section 4 b ii) | Action <br> Plan <br> Item |
| :--- | :--- |
| Increase involvement in the Women Researcher's mentoring scheme. | CP2.1 |
| Early Career Research Support Encouragement | CP2.9 |
| Staff training in equality and diversity/ gender issues | OC1.1 |

## Career development

a) 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.
(i) 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?

EDM recognises and values its staff, and aims to support career development for all. Key to this is the participation of all staff in the department (including postdocs and hourly paid staff on contracts over 30 hours per year) in the University's Performance Development Review (PDR) process. This involves an annual appraisal with the Head of Department or an Associate Head, with a six-month interim review. The PDR process takes into account teaching, research, pastoral and outreach work, as appropriate, and quality is emphasised over quantity. It is used to provide positive support and encouragement to those - often female - who feel unprepared for career development.

The Department currently has very high PDR completion rate, supported by our internal survey evidence (Table 17); all but one respondent had had a PDR in the last 2 years; the majority agreed / strongly agreed that their review had been useful (Table 19, page 36).

Table 17: Have you been reviewed regularly (in UWE) in the past 2 years
[Data removed].

The University has recently developed a set of academic career pathways for promotion for academic staff, being rolled out through 2014/2015 (Figure 21).

Figure 21: UWE Academic Career Pathways


| Associate Professor $\quad$ Associate Head of Department |
| :---: | :---: |

Senior Research Fellow
Senior Lecturer
$\square$
Research Fellow
Lecturer / Associate Lecturer
$\square$ Graduate Tutor

Specific career development to prepare staff for possible new roles is undertaken through determining interests and skills at PDR and other 1-1 meetings, and offering appropriate staff development opportunities. Staff may request specific development via the HoD. Our questionnaire found that over $80 \%$ of staff felt encouraged and supported by managers to undertake career development (Table 19, page 36 , row 1) and the majority had been encouraged to apply for promotions (Table 18). Interestingly, this table shows that a higher proportion of female than male respondents had been specifically encouraged to apply for higher posts.

Table 18: Staff Survey Response "Have you been invited or encouraged to apply for a post at higher level, now or in the past?"
[Data removed].
(ii) 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?

## Induction

New staff are strongly supported throughout their first year. Initially, they meet with the HoD or the appropriate AHoD to go through an HR checklist, which includes ensuring that staff are aware of:

- The structure of the department and their role in it
- Opportunities for networking
- Working practices such as flexible working, work-life balance initiatives
- Training and development opportunities within the university, including equality and diversity training
- The staff development fund and how to request funding from it.

In their first week, together with the HoD/AHoD, they develop a list of objectives - including training and development needs - for their role. They are invited to a UWE Welcome Fair for all new staff run 3 times per year.

If there is a large cohort of new staff, small workshops to optimise the process are provided by the Department, and also in the wider Faculty.

A Department structure charts exists, which is disseminated to staff during induction - Figure 2, page 9.
(Action OC1.3)

## Staff Development Funds

The Department strongly encourages staff development, and has an annual $£ 750$ per FTE allocation of staff development fund, allocated according to need rather than setting a $£ 750$ limit. It can be used for a variety of staff development needs such as training courses (internal and external), attending workshops and conferences, coaching and mentoring, group-based staff development sessions. Staff are encouraged to discuss their staff development needs at their annual PDR, but can approach the HoD at any time with requests. This procedure is communicated to staff via new staff induction, at PDR time and regular reminders to all staff through email and face-to-face communications.

Our staff questionnaire indicated that staff are generally aware of the opportunities for staff development open to them, although awareness of university training is still low. The Department continues to actively promote the opportunities available. (Actions OC1.1 and CP2.7)

The distribution of funds has been analysed by grade and gender - Figures 22 and 23 .

Figure 22: Number of Staff Development Fund awards shown per head by grade and gender (2010/11 2013/14)
[Data removed].
Key: For $x$-axis, see page 20

The data in Figure 22 show that in general, the (per head) number of awards of staff development funding are disproportionally favouring women. However, when broken down by value of award (Figure 23), in most categories men are receiving proportionately more funding. This is currently skewed partly by a few members of staff undertaking expensive training courses (e.g. Leadership Foundation training for P roles).

Figure 23: Value of staff development awards per head by grade and gender (2010/11 - 2013/14
[Data removed].
Key: For $x$-axis, see page 20

Action is being taken to ensure that staff development funding is transparently available to all. Case studies of staff who have benefitted (particularly) women, will be publicised on the staff intranet. (Action CP2.7)

| Actions for section 4 CD a ii) | Action <br> Plan Item |
| :--- | :--- |
| Staff development funding allocated in a balanced way | CP2.7 |
| Staff training in equality and diversity/ gender issues | OC1.1 |
| Increase staff members' understanding of the department's structure and their place <br> within it | OC1.3 |

(iii) 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

The University provides a good level of support to all students, UG and PG. EDM is pivotal in providing all UWE students the opportunity to access drop-in mathematics - "espressoMaths" - weekly during term time; drop-in programming and academic skills advice are also provided by the Department and Faculty. Welfare advice is available through provision of UWE Student Advisors, available daily, who can signpost students to the services available to them. The Department provides opportunities for students to go on field trips such as visits to companies, industry lectures and professional body events. Regular employability sessions are organised in the Department, and extra-curricular activities such as Formula Student, Mathematics Arcade and Space Exploration societies are supported by the Department. Support for students to attend events specifically for women is provided. (Action OC3.3)

Undergraduate students have an Academic Personal Tutor. PGT students are informally tutored by their Programme Manager, who is available to all students on the programme. PGR students have a Director of Studies and at least one other supervisor. All EDM academic staff have responsibility for a group of UG personal tutees, and this work is recorded in the formal Workload Model used across the university. A PGR student's supervision team is also allocated workload resource.

The Department is developing a mentoring scheme for PGR students. (Action OC3.2)
PGR students are supported to attend conferences through Departmental funds. In the last two years the 'per head' allocation for female PGR students has been slightly more than that for male PGR students, although of the same order ( $£ 410$ for women, $£ 360$ for men).

PGR students are encouraged to publish, with Faculty funds available to reward publication in good journals. These funds have been awarded to male and female students in proportion to their numbers.

Female and male PGR students are also supported through UWE's Graduate School, which provides networking opportunities and monthly events to allow PhD students to share experiences. It also organises social events (e.g. boat trips, bowling). This helps to engage students with a larger social network of people at similar stages to their research. In addition, on-line conferencing is used to allow those who work remotely or have caring duties to socialise with their peers.

| Actions for section 4 CD a iii) | Action <br> Plan <br> Item |
| :--- | :--- |
| Mentoring for female PGR students (outside supervision team) | OC3.2 |
| Access to UK-wide support | OC3.3 |

## Organisation and culture

a) 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 internal questionnaire, which explored the nature of the Department's culture and the perception of the treatment of female colleagues, provided generally positive responses (Table 19), as discussed in previous sections. Indications are that the vast majority of respondents felt that there were no gender differences for any of these aspects.

Table 19: Perceptions of working within the department
[Data removed].
Analysis by gender on the "Strong Agree", "Agree" versus "Disagree", or "Strongly Disagree" using the Fishers Exact Test, shows no statistically significant gender difference for any of these questions.

Note the last two rows: the questionnaire was conducted before the current workload model was introduced (described page 41). The Department continues to lobby the University to improve the transparency of the WLM. (Action OC1.6)

It is noticeable that several responses were "neutral": these questions were late in the survey and could be the result of "survey fatigue". These will be reviewed for the next survey. (Action OC1.7)

For both Table 19, and Table 20: Fishers Exact Test indicates that no statistically significant differences are observed in the proportions answering "no difference" between those reporting as male and those reporting as female.

Since our last submission, the department has been actively encouraging staff to strengthen their links with professional bodies and to take up networking and accreditation opportunities outside of the department through this route. The department now covers fees for staff members for Chartership registration.
[Data removed].

| Action for section 4 OC a | Action <br> Plan <br> Item |
| :--- | :--- |
| More transparency for staff of the WLM | OC1.6 |
| Review of survey questions, and their positioning within the questionnaire | OC1.7 |

## (i) 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.

All formal committees have their membership determined by role. Committee membership is acknowledged in the workload model as a generic allowance for all staff, although one or two committees are allocated an extra allowance - Research Ethics in particular, as extra work is required outside meetings to review paperwork. The departmental committee gender profile reflects the high number of senior women in the department (see figures 24 and 26).

Decision making committees at Faculty and University level generally have a statutory composition by role e.g. Deans, Associate Deans, HoDs. There are a few committees which select any membership, e.g. Faculty Academic Standards and Quality - ASQC (2 staff members from each department in addition to those who must attend by role) and Faculty Curriculum Approval Panel - CAP ( 2 staff members from Faculty in addition to those who must attend by role). Selection is by requesting nominations from HoDs, and these do have good female representation. The University has recently introduced a Faculty Board, whose membership is partially elected from the staff. Departmental staff are encouraged to stand for election by their managers.

Figure 25 shows that there are more women in the teaching-related committees of the Faculty (Curriculum Approval Panel and Academic Standards and Quality Committee) than on the research-related ones. This partly reflects the culture within the Faculty, which is not necessarily true at Departmental level; but should be monitored and action taken to rebalance committees as vacancies arise, whilst not overloading the female members of staff with committee activity. (Action OC1.4)

Student representatives self-nominate; there is an election if the number of nominations exceeds the number of positions. Student Representative Coordinators meet with interested female students individually prior to nominations to encourage them to self-nominate. Around $30 \%$ of student representatives in the Department are female (higher than the proportion in the general student population in the Department).

Figure 24: Proportion of females sitting on departmental committees / boards (2014-15)
[Some data removed]


Figure 25: Proportion of females sitting on faculty committees / boards (2012-13) [some data removed]


To put committee data in context, a reminder of the good female representation among EDM senior staff is given in figure 26.
[Data removed]

| Action for section 4 OC a i) | Action <br> Plan <br> Item |
| :--- | :--- |
| Ensure gender balance on committees (whilst not overloading female staff) | OC1.4 |

## ii) 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.Figures 27 and 28 show the proportion of women and men on fixed term and permanent contracts by FTE in comparison to the proportion of females and males in the department. (All statistics are FTE figures from February of the given academic year.

Figure 27: Gender breakdown of those on fixed term and permanent contracts, by FTE (2011-14)
[Data removed]

Figure 28: Proportion of females and males in the department, by FTE (2011-14)


The data shows that around $20 \%$ of fixed term contracts are for females. As $20 \%$ of EDM is female, this implies the Department is keeping such contracts within an acceptable gender balance.

Fixed term contracts are normally for part time Associate Lecturers / Research Associates who do a few hours teaching per week during term time only. Associate Lecturers are often PhD students, retired staff and those working around other commitments. Monitoring of this data is happening to ensure no significant issues in terms of proportion and gender occur from an FTE point of view. (Action DM2)

| Action for section 4 OC a ii) | Action Plan Item |
| :--- | :--- |
| Analyse data on proportion of fixed term staff in terms of FTE | DM2: completed for this |

b) 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.
(i) 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?

There is evidence from our internal survey that staff feel empowered to join committees where this membership rules permit (Table 19, row 7), with only 18\% feeling opportunities were not open to them.

The survey also collected data on membership of decision-making committees external to the university, although not by gender in order to preserve anonymity (Table 27). When available, we will publicise case studies of staff, particularly females, who are engaged in influential external bodies. (Action CP2.6)
(ii) 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.

Workload is assigned through a university-wide workload model (WLM). This includes allowances for pastoral and administrative responsibilities, with tariffs generally determined at University or Faculty level. In general, workload allocation is against income-bearing activities (such as teaching, research and consultancy).

Activity which does not bring in income, such as administrative and managerial work, is limited by the University to $10 \%$ of overall academic staff time. EDM is able to and does allocate resources within this $10 \%$ to activities which we view as important, such as outreach, women in science (Athena SWAN) and extra-curricular student support.

The average loading of staff in the Department is close to $100 \%$. Our survey data showed $24 / 37$ ( $65 \%$ ) of respondents reported that an over heavy teaching load had been detrimental to their careers, while 22/37 (59\%) of respondents felt overburdened by their administrative load. Statistical analysis of the survey results showed no difference between genders, confirming women are no more loaded than men across the whole department; although future data will need to be systematically analysed. Once done, we will report findings and ensure that those involved in allocating workload in EDM are aware of any issues.
(Action DM3) The majority of staff who responded to the questionnaire agreed that their workloads were allocated transparently and fairly (Table 19), although there were a significant number who were unhappy about the operation of the model. Note that the survey was completed prior to the implementation of the current web-based interface to the model, which provides better visibility of workload to staff.

Figure 29 shows EDM Workload data for 2013/14, and identifies:

- Females more likely to be within $90-110 \%$ of capacity
- Majority of both genders are either under or over allocated.

Figure 29: EDM Workload Data 2013/2014
[Data removed]


There is some rotation of activities amongst staff, e.g. Programme Leaders (who manage a full programme of study) undertake a 3 year term of office. Formal management roles such as Head of Department and Associate Head of Department are permanent roles and do not rotate.

All staff have an allocation of 10 days per year to cover general attendance at committees, etc. The Athena SWAN SAT is included as a recognised committee. The Chair of the Departmental SAT has an extra allocation of 10 days per year.
(iii) 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.

Departmental meetings take place between 10am-4pm, and typically on Wednesdays as these are less heavily timetabled. Meeting dates in the Department are planned and publicised in advance (generally via an annual calendar published at the start of the academic year). Lectures may be between 9am and 7pm, and formally staff are not entitled to request specific hours. However, within EDM we consider such requests for flexible working and work to ensure that staff with caring responsibilities, or who are part time, have timetables that accommodate their needs. Specific examples include:
[Data removed]
(iv) 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.

The Department's culture is generally friendly and informal. As already noted, the majority of staff survey respondents feel that their working environment is good (Table 19). There are regular informal whole Department meetings and 'get-togethers', e.g. at Christmas and at the end of the academic year, which are usually held during work hours. Students are on a first name basis with staff. Staff are encouraged to put forward ideas for inclusive events that the Department could support, e.g. a coffee club for female staff (matching those who join the scheme randomly in pairs) a 'bring your children to work day', family events, and a staff champion found to organise each event. (Action OC2.3)

Staff are encouraged to mix across subjects, enabling the transfer of good practice between them, such as Outreach, Professional Advisory Boards.

The department discourages 'long hours' culture / 'presenteeism', with staff, including senior staff, regularly working from home. Senior staff are discouraged by the HoD from sending emails in the evenings and at weekends. We infer from responses in Table 19 that the majority of questionnaire respondents agreed that there is not a culture of working long hours.

Seminars are organised within the Department and Faculty on a range of topics, including research and pedagogic issues. Staff have the opportunity to present their work to others. Seminars can present opportunities for career development for internal speakers and to provide opportunities to meet role models. The Department plans its seminars with gender balance in mind. (Action OC1.5)
(v) 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.

The Department has an Outreach and Widening Participation Strategy to promote mathematics and engineering to schools, across a wide range of ages. Part of this strategy is to aim outreach events particularly towards female pupils. Nine EDM staff, [Data removed], led outreach events in 2013/2014.

Together with the central University Schools and Partnership Service the department runs events throughout the year, and is in direct contact with around 1500 school and FE College students every year.

EDM has a long and successful history providing a wide range of Outreach activities, including:

- A Women into Engineering Taster Day
- Weekly Maths mentoring at Filton College
- An Annual Engineering and Maths Event Day, targeting Year 12 pupils studying AS Mathematics, introducing them to alumni in mathematical careers
- FunMaths Roadshows
- Wessex Mathematics Masterclasses
- Many STEM school taster \& activity days
- Imagineering at the Royal Bath and West Show
- Headstart residential programme in Automotive Engineering
- Bloodhound SSC outreach programme
- The Big Bang

More such outreach events are being planned. (Action C2.7)

The Mathematics section is particularly active, with [Data removed] running the annual Wessex Mathematics Masterclasses for ages 12-14; and [Data removed] running the faculty Engineering and Maths Event Day in June 2013. In addition, [Data removed] has visited 11 local schools for STEM Taster Days in the past two years, and is involved in the weekly maths mentoring scheme at a local college. [Data removed] visits various local schools with a FunMaths Roadshow and has worked with students on visits to UWE.

Through their own expertise and by sharing the good practice between the different subject areas in EDM, Engineering colleagues have coordinated a range of outreach activities, providing UWE's contributions to a variety of national events from The Big Bang to Imagineering events. The University works with the Bloodhound SSC project to provide gender-inclusive events promoting engineering in schools. Male engineering, design and technician staff have also visited local secondary schools. The Department supports the Engineering Headstart programme, which provides a residential university experience to Year 12 students in the summer. This year, two summer schools were run concurrently, one civil engineering one automotive engineering, which involved 6 members of staff; both activities were coordinated by female academics.

We have some concerns that our University-led Open Day events, which are always on Saturdays, may be preventing carers from attending (carers are likely to be disproportionately female). The Department is considering its own events to support those unable to come to Saturday events. (Action C2.6)

| Actions for section 4 OC b i-v | Action <br> Plan <br> Item |
| :--- | :--- |
| Increase involvement with external bodies. | CP2.6 |
| Analyse workload model data to determine if there are gender differences in terms of <br> overall loading | DM3 |
| Encourage inclusive, collegiate atmosphere | OC2.3 |
| Departmental lecture series and speakers. | OC1.5 |
| Open Day rescheduling | C2.6 |
| Schools' Outreach activities to target girls | C2.7 |

## Flexibility and managing career breaks

a) 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.
(i) 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.
(ii) 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.

The absolute numbers of parents taking parental leave is small - [Data removed] between 2010 and 2013. All staff eligible for maternity/paternity leave have taken it; all who have taken such leave have returned to work: showing good uptake by fathers taking 2 weeks' paternity leave in this period. As with maternity leave policies, paternity leave policies are well-publicised by the university and staff are expected to take their leave. As new shared maternity/paternity leave comes in, the Department has created guidelines for employees and managers. (Action OC2.2)

Figure 30 shows the absolute numbers of parents using childcare vouchers are small. However, EDM has publicised childcare vouchers with positive results and this will continue. (Action OC2.1)

Figure 30: Uptake of childcare vouchers
[Data removed]

## (iii) 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.

In this period, [Data removed] have made a formal request for flexible working, both approved. The small amount of data collected on formal requests at UWE suggests the following general principles:

- Requests come in from a range of faculties and services, predominantly from female staff
- Nearly all requests are approved
- Where requests are not approved an attempt is made to negotiate with the relevant line manager for alternative provisions to be made to accommodate the staff member.

The university policies around work-life balance will be more widely publicised to staff. (Action OC2.1)

Flexible working (i.e. change to contracted hours) requests are often made informally and changes approved and implemented with an informal record of why changes were made. Data on requests made through the formal system are detailed in the previous section. Responses to the internal survey data around flexible working are shown in Table 21.

| Action for section 4 F a)i-iii | Action <br> Plan <br> ltem |
| :--- | :--- |
| Local guidelines on return to work from maternity / paternity leave to complement <br> University guidance | OC2.2 |
| Access to work-life balance material | OC2.1 |

b) 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.
(i) 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.

Table 21: Flexible working (internal survey)
[Data removed]
Of those who responded, $75 \%$ said that the availability of flexible working when required had contributed positively to their careers. This indicates a high number of staff are using informal mechanisms to work flexibly. $75 \%$ said that they were aware of being able to ask for time off at short notice, $80 \%$ were aware of flexibility in hours/days worked (and the majority had used this) and $86 \%$ were aware of the flexibility to work from home or remotely (and the majority had used this). There were no significant differences by gender. These figures indicate a high level of awareness of the options open to them, and that managers are successfully promoting and managing flexible working arrangements.

Relating to flexible working, Table 22 shows data on staff with responsibilities for caring for adults. Over $60 \%$ of respondents either were now, or expected to be in the future, caring for adults, with no strong difference by gender. This indicates the need to ensure that flexible working remains available to staff. (Action OC2.1)
[Data removed]
(ii) 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.

Staff respondents of our questionnaire who had taken a period of maternity or paternity leave felt on the whole well-supported, but a significant number noted that they would have liked to return to a lower teaching and administrative load initially. Note that their response may refer to periods of maternity/paternity leave taken at other institutions (the questionnaire did not specify whether their period of leave was whilst employed at UWE).

The Department does not have much experience of women taking maternity leave, with [Data removed] taking maternity leave in the last 3 years. At the time, the Department appointed a fixed term member of staff to cover this period of maternity leave - there was no expectation that other staff would have to take on extra load. Other than the formal university arrangements, and informal contact with the staff member, the Department took no specific action to support [Data removed] e.g. by reducing workload after her return to work. There appear to have been no consequent issues, but since our last submission through the Athena SWAN self-assessment process the Department has produced guidelines for managing maternity leave, following good practice from other universities. (Action OC2.2)
(197)

| Action for section 4 F b)i-ii | Action <br> Plan <br> Item |
| :--- | :--- |
| Access to work-life balance material | OC2.1 |
| Local guidelines on return to work from maternity / paternity leave to complement <br> University guidance | OC2.2 |

SECTION 4 WORD COUNT: 4894

## 5. Any other comments: maximum $\mathbf{5 0 0}$ words

Please comment here on any other elements which are relevant to the application, e.g. other SETspecific 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.

## a) Achievements in 2013/2014

The Action Plan 'Action taken already' column shows our achievements since our first submission, e.g.:
i. SAT TORs created
ii. Marketing material improved and gender-balanced
iii. Good gender balance at Open Days
iv. Successful Women into Engineering Outreach activities
v. Unconscious Bias Training identified
vi. Improved academic promotion pathway
vii. Department paying for Chartership registration
viii. EDM Maternity and return to work guidelines completed.

| Examples of Actions for section 5 a) showing activities to date | Action <br> Plan <br> Item |
| :--- | :--- |
| Encourage wider involvement in SAT | C1.3 |
| Promotional Items for general use and Open Days | C1.4 |
| Work with employers to encourage more PT female applicants | C2.1 |
| Review promotional material, particularly around Engineering courses | C2.3 |
| Schools' Outreach activities to target girls | C2.7 |
| Promote department as inclusive and diverse | CP1.1 |
| Equality in short-listing and at interview | CP1.3 |
| Staff awareness of new promotion opportunities in teaching | CP2.2 |
| Increase involvement with external bodies. | CP2.6 |
| Local guidelines on return to work from maternity / paternity leave to complement <br> University guidance | OC2.2 |

b) Further Results and Commentary from the Staff Questionnaire

## Management Roles

Nearly half of staff who expressed an opinion, were interested in senior management, at Department or University level (Table 23), with no gender difference. However, a significant gender difference was noted amongst those who expected to go into senior management: a much smaller proportion of women. This indicates the need for mentoring schemes (Action OC1.8) and awareness raising about promotion. (Action CP2.2)

Table 23: Internal survey - career development
[Data removed]

## Professional Bodies

Table 24 shows the majority of male and female respondents were members of professional bodies; Table 25 shows a significant number had involvement at national level in various external activities. Take-up of these opportunities is strongly encouraged in EDM, for career development opportunities, and are promoted, e.g. via case studies of current staff. (Action CP2.6)

Table 24: Membership of professional bodies
[Data removed]
Table 25: Involvement in external activities

## [Data removed]

## Career Factors

The questionnaire investigated the key issues either positively or negatively impacting career development. Tables 26 and 27 (not including gender information, to preserve anonymity) show a supportive culture exists, with quality generally being appreciated over quantity. Negatively, an absence of mentoring/role models is identified. (Action OC1.8) It also showed that almost all respondents feel they had heavy teaching and administrative loads. The Department used this data in its successful campaign to improve staffing levels - hence recent recruitment of 10 new staff members.

Table 26: Factors contributing positively to career to date
[Data removed]
Table 27: Factors detrimental to career to date
[Data removed]

## Athena SWAN Awareness

We asked whether staff felt informed about women in science initiatives (Table 28). This has been commented on earlier. (Actions C1.1, C1.3)

Table 28: Effect of Women in Science Initiatives and Activities

|  | Yes | No | No response |
| :--- | ---: | ---: | ---: |
| I am aware of initiatives in my department | 22 | 17 | 4 |
| I am aware of initiatives in UWE | 23 | 16 | 4 |
| I contribute to / am actively engaged in initiatives in my department | 11 | 27 | 5 |
| I contribute to / am actively engaged in initiatives in UWE | 10 | 29 | 4 |
| I am personally benefitting from women in science initiatives in my <br> department | 8 | 31 | 4 |
| I am personally benefiting from women in science initiatives in UWE | [Data removed] |  |  |

## c) Other significant features

EDM has 6 University Teaching and Learning Fellows: academic staff recognised for their contribution to teaching and learning [Data removed]: hence female staff are disproportionately well-represented. Additionally, as UWE has recognised teaching excellence as an academic promotion criterion, this could have a positive effect on female EDM promotion opportunities.

A funding bid for a redevelopment of the current Engineering building has recently been made to HEFCE's Capital Bid scheme. The bid's focus is on improving equality and diversity across Engineering; creating a more inclusive and open building that is welcoming to all, providing a safe social learning environment and demonstrating the creativity and applicability of engineering to the real world. A stakeholder group of current and former female engineering students is a key part of the development process. (Action OC2.4)

Honorary graduates: successful women engineers were awarded Honorary Doctorates in 2012 and 2013; a deliberate decision by the HoD to provide role models to our graduates.

EDM strongly supports diversity in other forms, e.g. the "Recovery Career Services" for service personnel.

An "EDM Sharepoint" facility exists for Athena SWAN activities, to enable future Data Management analysis / synthesis. (Action DM4)

| Actions for section 5 | Action <br> Plan Item |
| :--- | :--- |
| Staff awareness of new promotion opportunities in teaching | CP2.2 |
| Increase involvement with external bodies. | CP2.6 |
| Encourage discussion and input from a wider group of staff. | C1.1 |
| Encourage wider involvement in SAT | C1.3 |
| Staff / mentoring roles models | OC1.8 |
| Build gender equality concepts into the plans for the new building planned for <br> Engineering. | OC2.4 |
| Control and review of gender-related data within EDM | DM4 |

## 6. Action plan

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.

The action plan does not need to cover all areas at Bronze; however the expectation is that the department will have the organisational structure to move forward, including collecting the necessary data.

## Re-submission Action Plan

As this is a resubmission, the action plan has been updated to show what has been completed since the first submission. It also includes new actions arising from this resubmission, from page 53 onwards.

In addition, table 29 below has been created to show how the original Panel's feedback has been addressed. We hope this summary will help you to see what has been done and why.

Table 29: Responses to Original Panel's Comments

| Comments: "Would like to see" | Department's Responses | Position in <br> Resubmission |
| :--- | :--- | :--- |
| SELF ASSESSMENT PROCESS |  |  |
| A better gender balance on the AS SAT | Commitment to a maximum two thirds <br> female and minimum one third male. <br> Want to ensure all staff feel welcome and <br> relevant on this SAT | Section 2, page 5 |
| ToRs and regular meetings required | ToRs in place, and meetings held every 4-6 <br> weeks | Section 2, page 5 |
| Beware of potential over-focus on <br> Maths | Recognised: more breadth in SAT, and <br> across all resubmission, including <br> Outreach | Throughout |
| A PICTURE OF THE DEPARTMENT | Diagram for EDM position in Faculty, and <br> revised Department diagram for clarity | Section 2, figures 1 and 2, <br> pages 8 and 9 |
| Where EDM sits with other <br> Departments in Faculty | Figure has been updated |  |
| Figure 1 was a little unclear | Now section 2, figure 2, page <br> 9 |  |
| Student progression pipeline required | Done for students and staff in 2012/2013 | Figure 16, Page 21 |
| Perceived female preference for BEng <br> rather than MEng | Action already provided in first submission | Action OC3.1 |
| More interrogation of differences <br> between EDM subjects and the <br> specificity of actions to these | We have considered how to improve all <br> activities, taking best practice from the <br> relevant subject areas; e.g. using Maths <br> Outreach to develop further Engineering <br> outreach | Throughout, e.g. <br> Action C2.3 - Promotional <br> material |
| Action C2.7 - Outreach |  |  |


|  | next survey, probably 2015 |  |
| :---: | :---: | :---: |
| Action to improve numbers of women at senior levels. | Numbers at senior levels are already good. This has been clarified and benchmarked throughout the document, to ensure it is not missed. | Throughout |
| Tick-box approach taken to this section | Attempt to better convey the enthusiasm within the department \& willingness to explore $\&$ address these issues. | Throughout this section |
| CAREER DEVELOPMENT |  |  |
| Less vague support for female students | It is considered fair that all students are given equal support. We do have a lot of student support and have now clarified this in the submission | Throughout, specifically Page 35 plus actions OC3.1-OC 3.4 |
| A tutor for PGT students | All PGT programme leaders act as their students' tutor. Two of the three programme leaders for the PGT awards are female. In addition, the CPD leader is female. | Page 35 |
| Lack of promotions process and unclear section construction | New University promotion process is shown, and better clarity has been developed. | Figure 21, page 32 |
| ORGANISATION AND CULTURE |  |  |
| Unfair allocation of workload | More staff have been recruited, reducing workloads. Revised workload system since questionnaire and previous submissions has also helped | Pages 41-42 |
| Committee Composition | Better communication has been put in place and opportunities are equal between male and female | Pages 37-39, 40 |
| Figure 22 backs concern over women at senior levels | The updated figure shows the improvements made since the first submission. Our numbers of senior women continue to be above average for the disciplines we cover | Figure 26, Page 39 |
| FLEXIBILITY AND MANAGING CAREER BREAKS |  |  |
| More actions required in this section | Actions OC2.1-OC2.3 were already in place, and have been developed since the first submission. OC1.4 is a new action. | Pages 44-46 and table 21 |
| Flexible working available to staff | Flexible working is available - this has been clarified. | Pages 44-46, 49, plus tables 21. 22 and 26 |
| Improvements to action OC2.1 | Re-worked, showing what has been done and what is underway | Page 61 |
| More concrete commitment to providing maternity leave guidelines | Guidelines have been written and approved - and ensure equality for all | Page 44, action OC2.2 |
| ACTION PLAN |  |  |
| Actions spanning all three years | Completed across all sections | Pages 54-61 |
| Milestones for "on-going" actions | Completed across all sections | Pages 54-61 |
| More specific success measures | Completed as required | Pages 54-61 |
| Too many actions reliant on HoD | Actions spread across SAT and wider, where relevant | Pages 54-61 |
| Perception that EDM waits for University to make policy | EDM attempts to influence changes to policy where necessary - e.g. in getting the University-wide Academic Careers structure created. It is hoped this is more clearly shown in this resubmission. Note that UWE has a centralised approach to policy and governance. | Pages 54-61 |

## Department of Engineering Design and Mathematics

## Faculty of Environment and Technology, University of the West of England, Bristol

## Athena SWAN Action Plan

## Summary

As this is a resubmission for the Bronze award, a column has been added to the Action Plan tables, to show what actions have been undertaken, and in many cases completed, since the original submission in November 2013.

Most actions are common across the Department, whilst some are specific to either Mathematics \& Statistics or to Engineering, where identified. The majority of such actions are to do with Engineering, as it is recognised more work is required within this subject area. Actions cover the next three years; however, this action plan will be regularly reviewed and updated to show a minimum of three years' action at any one time.

The actions are separated into four groups, with sub-groups are identified in each table, as required:

- Communication - C
- Career Progression - CP
- Data Management - DM
- Organisation and Culture - OC
Acronyms Used:

| AHoD | Associate Head of Department | HR | Human Resources |
| :--- | :--- | :--- | :--- | :--- |
| ASO | Athena Swan Officer | KS | Key Stage |
| BEng/MEng | Bachelors/Masters Degree in Engineering | LMS | London Mathematical Society |
| CEng | Chartered Engineer | OC | Outreach Co-ordinator |
| CH | Cluster Heads | PDR | Performance and Development Review |
| CPD | Continuing Professional Development | PGR | Postgraduate Researcher |
| EDM | Engineering Design and Mathematics | PL | Programme Leader |
| EDM MC | EDM Management Committee | SAT | Athena SWAN Self Assessment Team |
| FET | Faculty of Environment and Technology | STEM | Science, Technology, Engineering and Mathematics |
| FTE | Full Time Equivalent | UCAS | Universities and Colleges Admissions Service |
| HE | Higher Education | UWE | University of the West of England |
| HoD | Head of Department | UWE Mk | UWE Marketing Department |

## Communication

- C1: Promoting Athena SWAN to Staff
- C2: Student Recruitment - encouraging female applicants

|  | Description of action | Action taken already and outcome at Nov 2014 | Further action planned at Nov 2014 | Location in Application | Responsibility / Action Owner | Deadline | Success Measure $\mathrm{P}^{\text {a }}$ | Priority |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C1 | COMMUNICATION: Promoting Athena SWAN Concepts to Staff in the Department and Further Afield |  |  |  |  |  |  |  |
| C1.1 | Encourage discussion and input from a wider group of staff. | Athena SWAN regularly raised at Departmental Forum meetings | Continue to ensure inclusion of Athena SWAN at relevant departmental meetings and staff away days. | 2 b 4 a ii 5 | SAT | Ongoing | Athena SWAN and gender issues on agenda for all relevant departmental committees/meetings | H |
| C1.2 | Regular communication to staff and students of activities led by the EDM Athena Swan SAT. |  | Creation of a regular EDM Athena Swan newsletter (potentially within existing Department newsletter) | $\begin{aligned} & 2 \mathrm{~b} \\ & 4 \mathrm{a} \text { ii } \end{aligned}$ | SAT Lead | $\begin{aligned} & \text { March } \\ & 2015 \end{aligned}$ | Regular and detailed "newsletter" communication in place | M |
| C1.3 | Encourage wider involvement in SAT. | Terms of Reference created and agreed in January 2014, to be reviewed every two years. <br> Membership partially rotated in April 2014, with some members retained to enable re-submission. | (a) Clearly define the role and terms of reference of the SAT in the department. | $\begin{array}{\|l\|} \hline 2 \mathrm{c} \\ 4 \mathrm{aii} \\ \hline \end{array}$ | SAT | January 2016 | Terms of reference reviewed and updated as required. | M |
|  |  |  | (b) Review SAT membership and encourage all staff to consider SAT membership on this rotational 2 year basis | 2 c <br> 4 a ii 5 | SAT/EDM AS Champion | On-going | Annual half-rotation, with new SAT over two year period. Increasing proportion of EDM staff have been SAT members. | M |
| C1.4 | Promotional items for general use and Open Days. | Produced an Athena SWAN banner to be placed in a prominent position in the department and for use on Open Days. <br> Production of a USB stick featuring a presentation of our students' degree show work, displaying gender balanced images | Production of further USB sticks, based on the positive response from the recent Open Day, updating and improving on the information offered. | 2 b 4 a ii 5 | HoD/UWE Marketing | Nov 2015 | Further USB sticks produced. Good gender profile of images used. | M |
| C1.5 | Promotion in other faculty and UWE departments | Via ASO and EDM membership of the University SAT | Ensure HR Representative remains in EDM SAT for further good practice dissemination. <br> Part of UWE-wide AS working group(s) | 2 b | Athena Swan Officer | On-going <br> December <br> 2014 | Department recognised as source of good practice at faculty and UWE level <br> AS Working group: active EDM members. | M |
| C1.6 | Make links with other Engineering and Maths departments in the region. | Other Departments in Faculty are now considering Athena SWAN submissions. <br> HoD attended workshops in London on Athena SWAN / LMS Good Practice. <br> SAT Lead attended Athena Swan September 2014 Conference - Swansea. | Sustain established links with other departments and develop further with the aim of sharing best practice in the area | 2 b | HoD / Cluster Heads | On-going | Links made and maintained. <br> Support provided for other Athena Swan applicants and successful departments. | L |
| C1.7 | Regularly run staff questionnaire to monitor improvements | Staff questionnaire created and run for first time in 2013 | Decide on a schedule for running questionnaire (every 2 years currently decided as sufficient, to avoid "survey fatigue") | 2 b | SAT | Bi-Annual: <br> Autumn <br> Term | Results of questionnaire compared with previous runs; trends noted and actions taken by SAT when required. | M |
| C1.8 | EDM Athena Swan "Champion" to be identified, to be informal "face" of SAT |  | Define role to deal with staff concerns and issues e.g. concerns from young men that they are being discriminated against to give women an unfair advantage, use of social media to promote Athena Swan, etc. <br> Identify and confirm individual to take on this role | 2 c | SAT | $\begin{array}{\|l} \hline \text { December } \\ 2014 \end{array}$ | Champion recognised and worth appreciated at Department and University level. <br> More EDM staff aware of the Athena Swan process (via increase in awareness responses on the Staff Survey). | H |


| C1.9 | SAT to monitor and support Athena Swan action plan after Bronze re-submission |  | Regular 4-6 week SAT meetings to review progress | 2 c | SAT | $\begin{aligned} & \hline \text { December } \\ & 2014 \end{aligned}$ | Annual reviews show actions are being met to time and required standard | H |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Description of action | Action taken already and outcome at November 2014 | Further action planned at Nov 2014 | Location in Application | Responsibility / Action Owner | Deadline | Success Measure | Priority |
| C2 | COMMUNICATION: Student recruitment - encouraging female applicants |  |  |  |  |  |  |  |
| C2.1 | Work with employers to encourage more PT female applicants |  | Workshop to identify how to increase employers' awareness of gender balance and to determine whether they can provide more female applicants | $\begin{aligned} & 3 \mathrm{~b} \mathrm{ii} \\ & 3 \mathrm{~b} \text { iii } \\ & 3 \mathrm{~b} v \\ & 3 \mathrm{~b} \text { vi } \end{aligned}$ | CH / AHoD <br> Business <br> Engagement | $\begin{array}{\|l} \hline \text { Summer } \\ 2015 \end{array}$ | Greater employer awareness and scrutiny of gender balance in employer-led applications | M |
| C2.2 | Trend monitoring for gender balance, in both Mathematics and Engineering | Current position identified | Continuing review of trends, as actions identified are undertaken | $\begin{aligned} & 3 \mathrm{~b} \mathrm{ii} \\ & 3 \mathrm{~b} \mathrm{iv} \\ & 3 \mathrm{bv} \\ & 3 \mathrm{~b} \text { vi } \end{aligned}$ | SAT | $\begin{array}{\|l\|} \hline \text { April } 2015 \\ \text { / } 2016 / \\ 2017 \\ \text { (three year } \\ \text { review) } \\ \hline \end{array}$ | Annual reviews and required interventions identified to try to improve gender recruitment balance | M |
| C2.3 | Review promotional material, particularly around Engineering courses | Reviews carried out and findings reported to Marketing. Marketing staff briefed to ensure gender balance of images in literature. "Photo shoot" featuring female staff commissioned by Department. Web pages now showing more balanced imagery. | Rolling plan to ensure annual, systematic reviews of marketing literature to ensure balance of representation. Plan to be annually updated. | $\begin{aligned} & \hline 3 \mathrm{~b} \mathrm{iii} \\ & 3 \mathrm{bv} \\ & 3 . \mathrm{b} \mathrm{vi} \end{aligned}$ | Engineering PLs | April 2015 $/ 2016$ 2017 (three year review) | Annual review plan updated and implemented. <br> Updated promotional material is available. <br> Case studies are continually added. | H |
| C2.4 | Review promotional material for CPD/part time study, especially at PG level | Updated marketing material available giving a gender-balanced picture, circulated to key audiences | Further review gender profile of images and case studies in promotional materials | $\begin{aligned} & \hline 3 \mathrm{~b} \mathrm{iii} \\ & 3 \mathrm{~b} v \\ & 3 \mathrm{~b} \text { vi } \end{aligned}$ | AHoD Business Engagement / PLs | November <br> $2015 /$ <br> $2016 /$ <br> 2017 <br> (three year <br> review) <br> Apris | Three year review shows a successful sustainable gender balance in all marketing material | H |
| C2.5 | Open Day staffing and presentations demonstrate diversity | Open Day staffing (academic and student ambassadors) demonstrate a gender balance, with the female Head of Department giving the opening presentation and a representative proportion of female staff and ambassadors in attendance. <br> Presentations reworked to ensure gender balance of images. | Rolling plan to ensure that Open Day presentations and staff continue to demonstrate gender balance when revised, particularly focusing on Engineering, but also ensuring Mathematics remains well-balanced. Plan to be annually updated. | $\begin{aligned} & \hline 3 \mathrm{bv} \\ & 3 \mathrm{~b} \text { vi } \end{aligned}$ | HoD / Cluster Heads / AHoD student Experience | April 2015 / 2016 / 2017 (three year review) | Gender balance of staff and student ambassadors continues to demonstrate good gender balance in all disciplines. Emphasis on female role models in Engineering, specifically | M |
| C2.6 | Open Day rescheduling | Discussions held with Marketing. Reasons for preference of Saturday Open Days over week days thoroughly explored - turn out is considered insufficient: no change expected at University level. | Consideration of practicality and usefulness of Department-led mid week applicant taster day in spring term. Considering focus on specific groups for such events, e.g. carers | $\begin{aligned} & \hline 3 \mathrm{bv} \\ & 3 \mathrm{bvi} \\ & 4 \mathrm{OC} \text { b v } \end{aligned}$ | HoD / EDM MC | $\begin{array}{\|l\|} \hline \text { February } \\ 2015 \end{array}$ | Determination of feasibility. If going ahead, understanding of turnout. | M |
| C2.7 | Schools' Outreach activities to target girls | (a) A balance of female speakers invited to give plenary talk at annual Year 12 'Maths Event Day' | Continue to focus on bringing in female role models for Maths Event Day. | $\begin{aligned} & 3 \mathrm{bvi} \\ & 4 \mathrm{biv} \\ & 4 \mathrm{OC} \mathrm{~b} \mathrm{v} \end{aligned}$ | HoD / Maths Cluster Head / AHoD Student Experience / OC | $\begin{aligned} & \hline \text { June } 2015 \\ & \text { / } 2016 \text { / } \\ & 2017 \\ & \text { (three year } \\ & \text { review) } \\ & \hline \end{aligned}$ | Positive event feedback. | H |


|  |  | (b) Very successful Women into Engineering Day run April 2014. (with extra UCAS points for completing a UWE-based course during KS5) | (b) Follow-up activities being planned, e.g. "Ada Lovelace" Day. | $\begin{aligned} & 3 \mathrm{~b} \text { vi } \\ & 4 \mathrm{~b} \text { iv } \end{aligned}$ | HoD / <br> Engineering Cluster Heads / AhoD Student Experience / OC | April 2015 <br> $/ 2016 /$ <br> 2017 <br> (three year <br> review) | Positive feedback for the events provided. | H |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| C2.8 | Ensure alternative routes to higher degrees and Chartered Engineer status are understood by UG students - either traditional academic routes or work-based opportunities | Encouraging female students to learn about routes to CEng via MSc and CPD routes they might take after graduation. First session for UG Students held November 2014 | Annual sessions - more if required. | 3 bvi | FET CPD Director / AhoD Student Experience | November <br> $2015 /$ <br> $2016 /$ <br> 2017 <br> (three year <br> review) | On-going review of student progression to PG and CPD study by gender. Determination of factors encouraging / hindering such progression. | H |

## Career Progression

- CP1: Staff Recruitment
- CP2: Staff Development and Retention

|  | Description of action | Action taken already and outcome at Nov 2014 | Further action planned at Nov 2014 | Location in Application | Responsibility / Action Owner | Deadline | Success Measure | Priority |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CP1 | CAREER PROGRESSION: Staff Recruitment |  |  |  |  |  |  |  |
| CP1.1 | Promote department as inclusive and diverse. | Female staff agreed to contribute to Marketing Department's "Staff Stories" webpage. Images of female staff from "photo shoot" now on webpages. Athena SWAN and LMS Good Practice websites live. | Action plan to enable further updates to website and external channels with EDM's Athena SWAN involvement. More female achievements and case studies to be added when available. | 4 bi | HoD / Central web editing team | March <br> 2015 <br> March <br> 2016 <br> March <br> 2017 <br> (three year <br> review) | Website regularly reviewed and enhanced. <br> 2014 Recruitment round saw 7 out of 10 new posts go to female candidates. Future rounds to see further improvements - successful review in three years. | H |
|  |  | Athena SWAN logo now on all job adverts | Athena SWAN logo and information on all relevant new material | 4 bi | HoD / HR | On-going as and when new material available | New and updated EDM material refers to Athena SWAN, making it an implicit Departmental activity. | H |
| CP1.2 | Actively target women's networks to advertise vacancies | All recent vacancies advertised on Women in Maths email list / Women's Engineering Society webpages, as appropriate | Determine further networks / contacts for advertising mathematics and engineering jobs for women, and flag these to HR for advertising jobs as appropriate. | 4 bi | EDM MC / HR | Ongoing | Advertising opportunities flagged to HR. <br> Continuing the positive trend in recruitment of women initiated in 2014 | H |
| CP1.3 | Equality in shortlisting and at interview | New Interview training for Panel Chairs includes equality and diversity awareness. <br> Unconscious bias training located by HR (as a result of the EDM action in Athena Swan November 2013 submission), and under review within HR and the UWE Equality and Diversity Unit for roll-out in 2015. | The department will speak with HR about provision of training in unconscious bias and advocate provision of compulsory training for all interview panel members with the university. | 4 bi | HoD / HR | On-going | Dialogue with HR about provision of training in unconscious bias. | H |
| CP1.4 | EDM included in HR "positive action" agenda | UWE / EDM subscribes to "Diversity Jobs" to improve access to jobs for all perceived minorities, including women | EDM to remain included in similar central equality and diversity activities | 4 bi | HoD / HR | On-going | Increased awareness of gender initiatives in the department. <br> Continuing the positive trend in recruitment of women initiated in 2014 | M |


|  | Description of action | Action taken already and outcome at Nov 2014 | Further action planned at Nov 2014 | Location in Application | Responsibility / Action Owner | Deadline | Success Measure | Priority |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| CP2 | CAREER PROGRESSION: Staff Development and Retention |  |  |  |  |  |  |  |
| CP2.1 | Increase involvement in the Women Researcher's mentoring scheme. | UWE's Women Researcher's Mentoring Scheme has regular calls for participants - both mentors and mentees. <br> Up to July 2014, all eligible female staff had already entered the scheme. Scheme was publicised to new female staff joining September 2014. | Promote the mentoring scheme within the department, including a rough estimate of the time commitment. | $\begin{aligned} & 4 \mathrm{~b} \text { ii } \\ & 5 \end{aligned}$ | HoD/EDM rep on Mentoring Scheme panel | On-going June 2017 (three year review) | Scheme promoted. Appropriate uptake at all calls (normally February each year) and subsequent years. | M |
| CP2.2 | Staff awareness of new promotion opportunities in teaching | The University has announced the possibility of promotion on the grounds of teaching and/or knowledge exchange excellence as alternatives to research excellence, at least at Associate Professor level (Reader). | Raise awareness amongst staff of the existing promotion process and criteria. | 3 b vii 4 a ii 5 | HoD, AHoDs, PDR Reviewers | $\begin{aligned} & \hline \text { Through } \\ & 2014 / 15 \end{aligned}$ | Better staff awareness of promotion process and criteria (measured by staff questionnaire 2015) | H |
| CP2.3 | Inform all staff of career pathways | There is now a UWE academic promotion structure in place, which meets the demands of EDM academic development | EDM to ensure applications for promotion through the academic careers pathway are encouraged and supported | 3 b vii <br> 4 a ii <br> 5 | EDM MC / HR | On-going (annual review) | A positive impact on women going for and achieving promotion | M |
| CP2.4 | Encourage staff involvement in career information gathering towards promotion application | A faculty-wide workshop about promotion has been held, with Departmental support. | The department is currently aiming to achieve promotion through teaching or knowledge exchange excellence for some members of staff - in progress. | 3 b vii 4.a ii 5 | EDM MC | On-going (annual review) June 2017 (three year review) | Successful promotions are achieved, based on equal opportunities for women and men. | H |
| CP2.5 | Encourage UWE to adopt a "promotion round" approach, whilst supporting female and male staff through the existing process | The department raised the issue of promotion by business case, not by personal application, questioning whether the procedures could be changed to develop talent in a better way. However, the University continues with the business case approach and does not yet consider a promotion round approach. | Female staff will be encouraged to put forward their cases more firmly, with advice and positive action provided to ensure their promotion business cases are as strong as those of male colleagues. The department will continue to lobby for the alternative approach | $\begin{aligned} & 3 \mathrm{~b} v \\ & 4 \mathrm{a} i \mathrm{i} \end{aligned}$ | EDM MC | On-going (annual review) June 2017 (three year review) | More women apply for promotion <br> All staff have equivalent support during their promotion applications | H |
| CP2.6 | Increase involvement with external bodies. | A number of members of staff are involved at local and national level with professional bodies, including professional body women's groups. <br> Female staff have been encouraged to join the Women in Engineering Society and other Women's Engineering committees - progress is positive. <br> Department is now paying fees for Chartership applications. | (a) Develop and extend links with professional bodies' women's groups. | $\begin{aligned} & \hline 4.0 \mathrm{C} \mathrm{~b} \mathrm{i} \\ & 4 \mathrm{OC} \text { b } 2 \\ & 5 \\ & \hline \end{aligned}$ | All staff | On-going (annual review) | EDM affiliation to bodies such as WISE and the Women's Engineering Society | M |
|  |  |  | (b) Continue to promote benefits of professional body membership to staff | $\begin{aligned} & 4 . O C \text { b i } \\ & 4 \text { OC b } 2 \\ & 5 \end{aligned}$ | $\begin{aligned} & \text { HoD / AhoDs / } \\ & \mathrm{CH} \end{aligned}$ | On-going (annual review) | Increase in membership of professional bodies, particularly among women | M |
|  |  |  | I Encourage and support staff engagement at national level e.g. through board/committee membership. Publicise case studies featuring staff who already do this (particularly women). | $\begin{aligned} & 4.0 \mathrm{C} \mathrm{~b} \mathrm{i} \\ & 4 \mathrm{OC} \mathrm{~b} 2 \\ & 5 \end{aligned}$ | HoD/PDR Reviewers/ EDM MC | Annual PDR round / review of marketing material | PDRs and EDM Survey results (every 2 years) confirm Increase in staff taking on roles within their professional body, particularly amongst women. | H |


| CP2.7 | Staff development funding allocated in a balanced way | Staff development funding is available to all.Staff development opportunities publicised. Department Away Day held on PDR and Staff Development, with case studies illustrated during the Away Day. | (a) Ensure opportunities within the university are more widely known | $\begin{aligned} & 4 \mathrm{~b} \mathrm{ii} \\ & 4 \mathrm{OC} \text { a ii } \end{aligned}$ | HoD/PDR Reviewers | During annual PDR round | Annual review to ensure staff uptake of internal training is more gender-balanced | H |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | (b) Ensure funding availability is more transparent; develop and publicise case studies about the development in which staff members have engaged. | $\begin{aligned} & 4 \mathrm{~b} \text { ii } \\ & 40 \mathrm{OC} \text { ai } \end{aligned}$ | EDM MC | On-going (annual review) | Funding allocation monitored annually by gender and action taken if there continues to be a trend of differential awards. | H |
| CP2.8 | Reasons for leaving mitigated | UWE has committed to running a pilot exit interview project for academics in 2014-15. <br> The Exit Questionnaire changed in January 2014, to explore a breadth, rather than a depth of reasons for leaving. It is also now anonymous. As a result: 1) response rate has hugely improved ( $8 \%$ to $30+\%$, however, more detail required at departmental level. An Exit Interview Project began summer 2014. | Work with HR to identify what mitigation can be put into place to counter any issues identified. | 3 b viii | HoD | On-going (annual review) | Results from this survey are built into staff retention activities. | M |
| CP2.9 | Early Career Research Support Encouragement | Information to eligible new staff about this opportunity | All early career researchers will be informed of the opportunity and supported in any applications | 4 b ii | HoD | On-going (annual review) | All eligible informed of the opportunity; on-going review of success of these applications in each round | M |

## Data Management

|  | Description of action | Action taken already and outcome at Nov 2014 | Further action planned at Nov 2014 | Location in Application | Responsibility / Action Owner | Deadline | Success Measure | Priority |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| DM1 | Collection of Department data for three-year re-application for the Athena Swan Bronze award, or, if ready, for the Silver award |  | An extension of the SAT to support the new submission | 2 | SAT submission working group | $\begin{aligned} & \hline \text { November } \\ & 2016 \end{aligned}$ | a) SAT submission group in place <br> b) Successful submission result April 2018 | $\begin{aligned} & \hline \mathrm{H}(\text { in } \\ & \text { 2016) } \end{aligned}$ |
| DM2 | Analyse data on proportion of fixed term staff in terms of FTE rather than head count. | This data and its analysis has been provided and discussed in the main body of this submission. | Annual review of this data. | 4.0 Ca ai | Athena Swan Officer / SAT | Summer <br> $2015 /$ <br> $2016 /$ <br> 2017 <br> (three year <br> review) | Current process shows 20\% of FTE on fixed term are female - improved on previous year, and in line with national expectations. <br> This \% does not increase disproportionally | M |
| DM3 | Analyse workload model data to determine if there are gender differences in terms of overall loading |  | Collect data from workload model system by gender, and report findings. Ensure those involved in workload modelling (AHoDs) are aware of findings. | 4.0 C b ii | Athena Swan Officer / HoD / Cluster Heads | Annually, starting October 2014 | Better perception of workload allocation measured by staff survey $(2015,2017)$ | M |
| DM4 | Control and review of genderrelated data within EDM | A Sharepoint site has been created for all relevant information, including submission documents | Data on action completion and further developments to be recorded as required | 5 | Athena SWAN Officer / SAT | SAT monitoring , on-going, full review Jan 2017 | Ease of data retrieval for next EDM Athena SWAN submission | M |

## Organisation and Culture

- OC1: Staff Support
- OC2: Staff Work / Life Balance
- OC3: Student Support

|  | Description of action | Action taken already and outcome at Nov 2014 | Further action planned at Nov 2014 | Location in Application | Responsibility / Action Owner | Deadline | Success Measure | Priority |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| OC1 | ORGANISATION AND CULTURE: Staff Support - ensure equal opportunities |  |  |  |  |  |  |  |
| OC1.1 | Staff training in equality and diversity/ gender issues | Existing UWE training material identified, and staff regularly reminded, via email and at various Departmental Fora ( $70 \%+$ completed). | Encourage all staff to complete centrally provided equality and diversity training | 4 CD a ii | HoD / all AHoDs | January 2015 | Close monitoring of training uptake in Equality and Diversity - $90 \%$ of staff undertake the training | H |
| OC1.2 | Increase awareness of unconscious bias and how to avoid it :Training in unconscious bias | HoD attended LMS Good Practice Scheme Workshop October 2014: plan to help dispel unconscious bias | (b) Work with HR to create further opportunities for staff training in unconscious bias. | 4 bi | EDM MC / HR | September 2015 | Department has shared with the UWE Learning Development Centre possible ways forward to develop such programmes and will participate should they go live | H |
| OC1.3 | Increase staff members' understanding of the department's structure and their place within it. | Structure of department is briefly highlighted during new staff induction sessions. | Create and signpost organisational chart of staff, and a further chart of roles: both roles within the department and faculty roles affiliated to the department. | 4 CD a ii | HoD / AHoDs | March $2014$ | Charts created and signposted effectively. | H |
| OC1.4 | Ensure gender balance on committees (whilst not overloading female staff) | Workload is allocated for generic committee attendance, and extra is allocated for some specific committees. <br> Departmental committees already well-balanced by gender. | Inform, motivate and equip staff to attend higher level meetings, e.g. through encouragement to stand for election or nominating staff bearing in mind gender balance. | 40 Cai | PDR Reviewers | During annual PDR round | Opportunities are continually identified and implemented through the PDR process. Progress reported to EDM MC annually. | M |
| OC1.5 | Departmental lecture series and speakers. | EDM Lecture Series in place from 14/15. Female speakers are strongly encouraged, internal and external. | (a) Commit to a proportional split of male and female speakers (who may be internal or external) in departmental seminars | 4 OC b iv | AHoD Research \& Scholarship | January 2015 | Departmental seminar series remains in place, adheres to gender target and remains relevant | M |
|  |  |  | (b) Encourage other departments in the Faculty of Environment and Technology to contribute to or to initiate their own similar series | 4.0 Cb iv | AHoD Research \& Scholarship | On-going | Participation by other departments. | L |
| OC1.6 | More transparency for staff of the WLM | Move to WAMS software complete, further issues have been identified | EDM to lobby University for more transparency of the WLM amongst colleagues | 4 OC a | HoD | July 2015 | University lobbied to increase level of transparency within WLM | H |
| OC1.7 | Review of internal survey questions and their position within the Questionnaire | Some areas for improvement identified, such as dealing with "survey fatigue" | A review of the questions asked, and ensuring they are current when the survey is repeated | 4 OC a | Survey Developer | January 2016 | Good response and clear results from the next survey | M |
| OC1.8 | Staff / mentoring roles models | Informal identification of staff to help their colleagues | Mentoring opportunities to be considered and developed, as possible | 5 | Cluster Heads | September 2015 | Confirmation of relevance of scheme, and if so, process in place, mentors / mentees identified and working together | M |


| OC2 | ORGANISATION AND CULTURE: Work-life balance - Maximise awareness and use of support surrounding staff members' home lives [Staff Questionnaire will be repeated in Summer 2015 and Summer 2017] |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| OC2.1 | Access to work-life balance material | HR published reviewed guidance surrounding family and home life in September 2013. <br> Policies highlighted in Induction for new staff, and reminders of all issues are made at the Departmental forums. | (a) Remind EDM staff where to look work-life balance / family friendly policy information. | $\begin{aligned} & 4 \mathrm{~F} \mathrm{a} \mathrm{ii} \\ & 4 \mathrm{Fbi} \\ & 5 \end{aligned}$ | EDM MC / HR | Summer 2015 Summer 2017 | Increased awareness of policies and support available, measured through staff questionnaire. | H |
|  |  |  | (b) Remind the department that both parents can sign up for childcare vouchers. | 4 Fa ii 4 Fbi 5 | EDM MC | $\begin{array}{\|l\|} \hline \text { Summer } \\ 2015 \\ \text { Summer } \\ 2017 \\ \hline \end{array}$ | Continuation of current increase in uptake, by both women and men. | H |
| OC2.2 | Local guidelines on return to work from maternity / paternity leave to complement University guidance | Department guidelines (closely linked to the University guidance) completed and EDM staff made aware of them. Their equality is shown by their first use for paternity leave. | Write guidelines for return to work from maternity/paternity, using good practice from other universities. | $\begin{aligned} & 4 \mathrm{Fa} \text { ii } \\ & 4 \mathrm{Fb} \text { ii } \end{aligned}$ | HoD / HR | $\begin{array}{\|l} \hline \begin{array}{l} \text { Summer } \\ 2015 \end{array} \\ \hline \end{array}$ | Improved experience of return to work, measured through staff questionnaire / individual feedback. | L |
| OC2.3 | Encourage inclusive, collegiate atmosphere | Informal staff lunches held 3-4 times per year. <br> Christmas and summer 'get togethers' | Encourage staff to suggest events the department could support, e.g. coffee club for female staff, a 'bring your children to work day', family events | 4 OC b v | EDM MC | On-going during 14/15 | Events co-ordinator in place, and schedule for each academic year created. | M |
| OC2.4 | Build gender equality concepts into the plans for the new building planned for Engineering: Focus will be Equality in STEM | Business case for new building being developed, aiming for HEFCE matched funding | Plan for use of space to promote equality and diversity | 5 | HoD / Faculty / University | $\begin{array}{\|l} \hline \text { Summer } \\ 2016 \end{array}$ | Building completed and Equality \& Diversity its core focus | H |
| OC3 | ORGANISATION AND CULTU | C. Student support ensure equal opportunin | nities |  |  |  |  |  |
| OC3.1 | Review any gender differences around BEng/MEng transition, and decision to progress to Masters. | Currently difficult to determine gender profiling for those eligible to transfer to MEng - under investigation by HR Business Intelligence Group. | Once data available, create a focus group with and collect data from female undergraduate students who are deciding / have decided, whether or not to progress to MEng and MSc courses to assess if this is a drop-off point: if so, find out why to address issues arising. | $\begin{aligned} & \hline 3 . \mathrm{b} \mathrm{ii} \\ & 3 . \mathrm{b} \mathrm{vi} \end{aligned}$ | ASO / AHoD <br> Student <br> Experience / <br> Engineering PLs | Initial <br> Review <br> January <br> 2015 <br> Action Plan <br> Review <br> April 2016 | Obtain understanding of factors in decision to progress to taught masters, particularly as they relate to gender. <br> Implement appropriate actions, such as early intervention. | H |
| OC3.2 | Mentoring for female PGR students (outside supervision team) | Working with Graduate School to determine best PGR development opportunities | Identify a suitable support process for PGR students, possibly across the university. | $\begin{aligned} & \hline \text { 3.b iv } \\ & \text { 3.b vi } \\ & \text { 4.CD a iii } \end{aligned}$ | AHoD Research | September 2015 | Suitable process in place for PGRs, as required. | H |
| OC3.3 | Access to UK-wide support | Delegation of 10 students attended WES conference 2013. Conference 2014 being advertised to students and sponsorship to attend on offer. | Ensure further opportunities are publicised to students, to attend professional body workshops / conferences such as these Women's Engineering Society conference. | 4 CD a iii | PLs /HoD | July 2015 / <br> $2016 /$ <br> 2017 <br> (three year <br> review) <br> 2018 <br> onwards | a) Potential opportunities over next three years identified <br> b) Attendance monitor established to ensure that balance of those funded at least reflects balance within department | M |
| OC3.4 | Increase female participation in lifelong learning activities run in the Department | Development of a flexible lifelong learning framework to support career development initiated in key subject areas. <br> Workshop created to support progression to CEng. Professional Development module a core part of the Engineering Framework. <br> Companies being introduced to the concept of Athena Swan. | Identify and target companies that are proactive in recruiting and developing women to promote flexible CPD opportunities offered, e.g. through alumni connections. | $3 . \mathrm{bvi}$ | AHoD Business Engagement / Programme Leaders / CPD Director | September <br> 2015 / <br> 2016 / <br> 2017 <br> (three year <br> review) | (a) Sustained proportion of female participation of at least 20\% on lifelong learning activities. <br> (b) Companies identified as supportive of female career development, e.g. providing case study material for promoting opportunities to female employees. | H |


[^0]:    *No postgraduate taught courses in Design
    No further applicants accepted on PG course in Mathematics
    Courses are benchmarked against HESA data for 12-13 and weighted by JACS code.

