



Athena SWAN Gold Department award application

Name of institution: University of Edinburgh

Date of application: April 2012

Department: Chemistry

Contact for application: Dr Stephen Moggach

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Departmental website address: <http://www.chem.ed.ac.uk/>

Date of Silver SWAN award: 2006, renewal 2009

Date of university Bronze award: 2006, renewal 2009

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

See appended letter from the Head of School.

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;*

Our self-assessment team was established to: 1) analyse School achievements, strategies and data, 2) generate a forward plan for the School and 3) formulate an application for an Athena SWAN Gold award.

The team represent a broad range of men and women in the School at different stages of their academic careers, including support staff.

Dr Stephen Moggach (Convenor): Stephen is a research fellow and Lecturer. He obtained his undergraduate degree in Aberdeen, followed by his PhD and a postdoctoral research position in Edinburgh. He started his research fellowship in 2008 in the School, and was made a permanent member of staff in 2011. Stephen is the equality and diversity representative for chemistry. He is in a dual career marriage with a young family.

Prof. Eleanor Campbell: Eleanor is Professor of Physical Chemistry and the current Head of School. She obtained her undergraduate and PhD degrees from the School in the eighties. She held the Chair of Atomic and Molecular Physics at Gothenburg University for 10 years before returning to Edinburgh in 2007. She was elected FRS in 2010. Eleanor brings her experience of working in a strongly male-dominated field in two European countries with contrasting approaches to women in the workplace. She is strongly behind the Athena SWAN activities in the School and determined to retain and enhance the School's reputation as 'female-friendly'. She is in a dual academic career marriage.

Dr. Carole A. Morrison: Carole is a Senior Lecturer in the School. She runs a research group in computational chemistry and also manages the EaStCHEM Computing Facility. From 2003-2010 she worked in a part-time capacity while her children were of pre-school age, and since returning to full-time employment has made use of flexible working practices to help juggle the demands of work and family life (see Case study 1, section 10).

Dr Rehana Karim: Rehana is a teaching fellow in organic chemistry and contributes to undergraduate teaching/administration. She is involved in designing new courses, trialling innovative web-based resources and developing laboratory experiments for undergraduates. She is also the current organiser for LEAPS (see section 3b(i)).

Dr. Olof Johansson: Olof completed his PhD in the School in 2010 followed by a Postdoc position within the department which he still holds. He has organised weekly meetings for students and postdocs, supervised undergraduate and postgraduate students in the lab and lectured to undergraduates. He is the current postdoc representative on the team. He is in a dual career marriage with a young family.

Mr. Philip McDonald: Phil is the Technical Services Manager for the School of Chemistry. He is in charge of Technical Services and is the School Health and Safety convenor. He also supports and advises on all aspects of laboratory and building

refurbishments and facilitates staff recruitment and career development. He is in a dual career marriage.

Miss Jennifer Turkington: Jennifer is a final year PhD student at the University of Edinburgh. She is an active member of ChemSoc (the oldest student chemical society in the world), and has actively helped organise events within the school that promote women in science. Jennifer is currently deciding whether to stay in academia or move into industry when she completes her PhD.

Dr Paul Lusby: Paul is a Lecturer in the School. He completed his BSc and PhD at the University of York before taking up a PDRA position in Warwick. He moved with the same group to Edinburgh in 2001, and in 2003, took up a fixed-term teaching position. He was awarded a Royal Society University Research Fellowship in 2006. In early 2007, he also secured a lectureship in the School. For more details, see case study 2, section 10.

Mrs Annette Burgess: Annette is the Senior Administrative Assistant for the School, whose responsibilities include Secretary for the Head of School and the Graduate School. Annette has a number of years' experience working in an HEI environment, and, with two grown-up children, is fully aware of the difficulties of the work-life balance.

Mrs Alison McNaught: Alison has been the Senior HR Advisor for the College of Science & Engineering since 2005. She has specific responsibility for four of the seven Schools including Chemistry. She is a member of the College Equality & Diversity Committee and the University Athena SWAN network. She is married with two teenage children.

b) An account of the self assessment process: details of the self assessment team meetings, including any consultation processes that were undertaken with staff or individuals outside of the university, and how these have fed into the submission;

The chemistry self-assessment team have met quarterly since April 2009. In early 2011, we took part in the pilot of the 'Good Practice Index'¹. Department scores and ratings were reported under the 10 Domains of the Athena Good Practice Action Framework. We performed well in all categories, with the exception of two; 'evidence base for action' and 'career development activities'. This index was used to inform our strategy. In addition, advice was also sought from Sue Couling (a member of the York Chemistry Department Athena SWAN committee). Advice on career development activities was also received from Allison Johnstone from the Scottish Resource Centre for Women in SET (see WISE event in section 5a(iii)). The Athena SWAN committee and objectives were introduced to all members of academic and support staff at a formal staff meeting, and engagement with members of academic staff within the School of Chemistry has been regularly reinforced via informal discussions.

¹ The Index can be used to measure the effectiveness of existing national good practice initiatives (Athena SWAN, IOP Juno and LMS award schemes). It can provide objective evidence to support departments' award applications. It can also be used by professional and learned societies who do not have their own good practice recognition scheme and by universities across their STEMM departments. <http://www.oxfordresearchandpolicy.co.uk/>

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

The self-assessment team will continue to meet on a quarterly basis. The highest turnover is expected to be in the student and postdoctoral researcher categories. ChemSoc will be asked to suggest replacement members for postgraduate and postdoctoral representatives. The new undergraduate student representative will be elected by the undergraduate student body. Replacement of staff members will be arranged via an email request to relevant staff. If more than one person volunteers they will be informally interviewed by the Convenor and Head of School and one representative chosen. If no one volunteers the Head of School will approach suitable members of staff after consultation with the Convenor. The team will develop to serve as the School Equality and Diversity Committee and report to the School Management Board and to the College Equality and Diversity Committee. We will implement the Action Plan through broader engagement with staff, increasing their responsibility for realizing the School Athena SWAN ethos. The committee will review progress towards milestones and revise the Action Plan as necessary; reporting initiatives and progress to School staff meetings as well as to decision-making committees. We will further contribute to the University Athena SWAN Network, sharing best practice and informing University strategy.

Action 1A

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 University of Edinburgh hosts three colleges; the College of Medicine and Veterinary Medicine, the College of Science and Engineering and the College of Humanities and Social Science. The Princess Royal was recently elected as the new Chancellor, the Principal is Professor Sir Timothy O'Shea; 4 of the 12 Vice-Principals are women.

The School of Chemistry is run as a single academic unit with 50 academic staff, 20 support staff, about 200 research students and post-doctoral workers and a first year intake of 135 Chemistry undergraduates. It has a long and proud tradition. The first Chair of Chemistry was appointed in 1713 (we believe the third oldest Chemistry Chair in the World after Marburg and Cambridge) and graduates of the Edinburgh Chemistry School were instrumental in developing Chemistry as an academic subject throughout the world in the 18th and 19th Centuries. The first Chemical Society in the World was founded in Edinburgh in the 18th Century (ChemSoc) and this student-led society continues to play an important role in the life of the School.

Undergraduate courses are offered in Chemistry, Chemical Physics, Chemistry with Environmental and Sustainable Chemistry, Chemistry with Materials Chemistry, Medicinal and Biological Chemistry, leading to BSc, BSc (Honours) and Masters Degrees with additional opportunities to study abroad and/or in industry in the penultimate year of the MChem degree programmes. The academic and support staff in the School are all strongly committed to providing an excellent teaching

environment for the students and to providing high quality pastoral support for the students. This commitment has been highlighted in the Edinburgh University Students Association (EUSA) teaching awards, for which the School has been short-listed in the top two departments for the last three years, winning best department in 2011 and best director of studies (Dr. Murray Low) awards in the same year.

In 2011, one of our female students was awarded the Salters' Institute Graduate Prize. These prizes are given to first class graduates who show the potential to be future leaders. This is the fifteenth consecutive year that the prize was awarded to one of our students, and the sixth consecutive year that the prize went to a female student.

The Chemistry department has a tradition of encouraging female students that goes back to Chrystal MacMillan, the first science graduate of the University of Edinburgh who graduated in 1896. A photograph of the graduating students from 1946, below, shows a strong cohort of female students even then.



The research school together with its sister school from the University of St Andrews form EaStCHEM. In the Research Assessment Exercise (RAE) from 2008 EaStCHEM came joint 4th in the Grade Point Average (GPA) metric, and first in the UK when staff numbers are factored in (known as the power ranking). This world-class centre for chemistry has four research groupings: the Chemistry/Biology Interface; Experimental and Theoretical Chemical Physics; Molecular Synthetic Chemistry; and Materials Chemistry.

The School has been dedicated to the Athena SWAN ethos since 2006. Our enrolment in Athena SWAN was driven by Professor Lesley Yellowlees, who is the current head of the College of Science and Engineering. The Athena objectives are fully supported by our current Head of School, Professor Eleanor Campbell FRS.

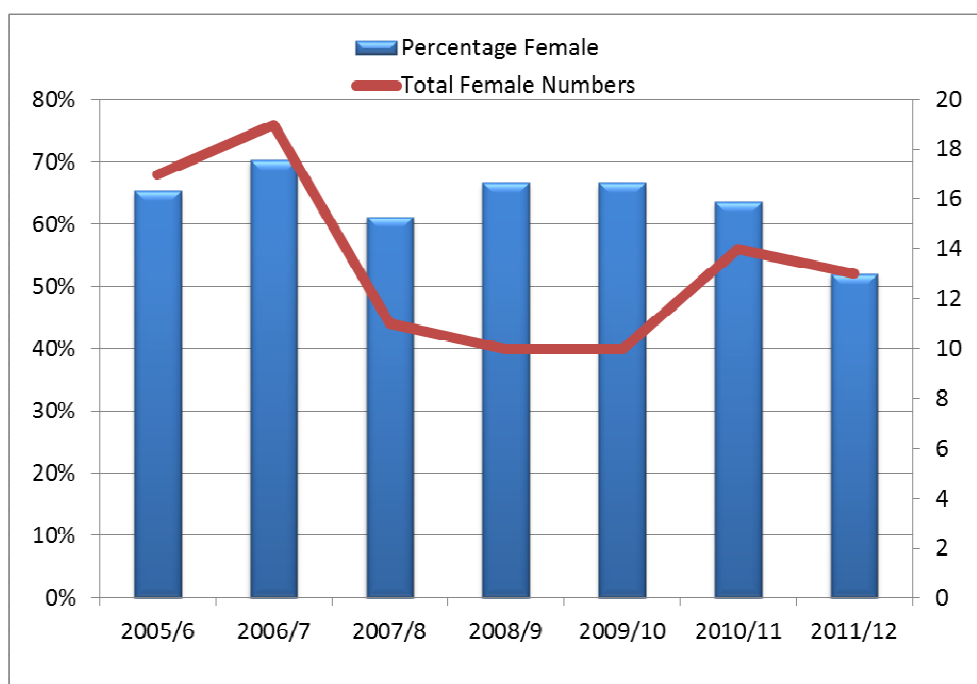
Our wish is to continue to fully support the Athena SWAN charter, both within the School, College and the whole University. Our hope is to be recognised as leaders in developing policies and by informing University strategy on equality and diversity issues (we are already frequently asked for advice on these matters). In order for this to be achieved, and for us to be true Athena SWAN Champions, our current self-assessment team, led by the current Athena SWAN coordinator and including the Head of School will ensure that the Athena SWAN charter is adhered to, and that our actions are carried out and monitored. This strategy will maintain the longevity of Athena SWAN in the School, for which we are very passionate.

- b) Provide data for the past five years (where possible with clearly labelled graphical illustrations) on the following with commentary on their significance, how they have affected action planning, and any improvements since the department's Silver award.

Student data

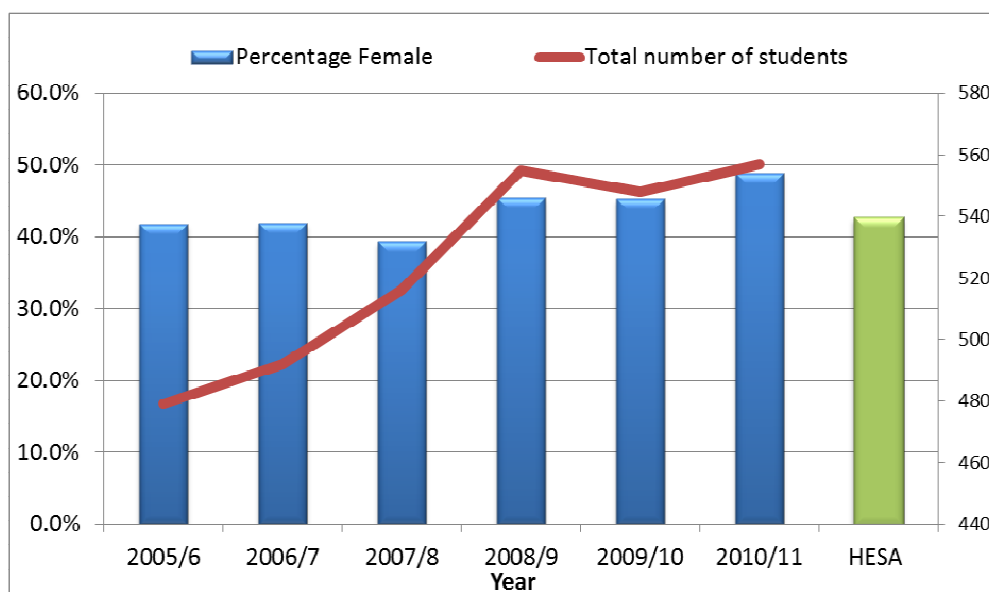
(i) Numbers of males and females on access or foundation.

The School takes part in the Lothians Equal Access Programme for Schools (LEAPS), which is designed to help students who are traditionally under-represented within higher education. Examples include schools with a tradition of low progression to higher education, as well as students who come from backgrounds that would suggest that they are less likely to proceed to university-level study. As part of this remit, the School runs a summer programme to help LEAPS students holding one or more UCAS offers. Below are the statistics acquired over the last 5-years on LEAPS summer students.



We have to date had a large percentage of female students attending the LEAPS summer school, with at least 52% of attending students being female, the average was 59%.

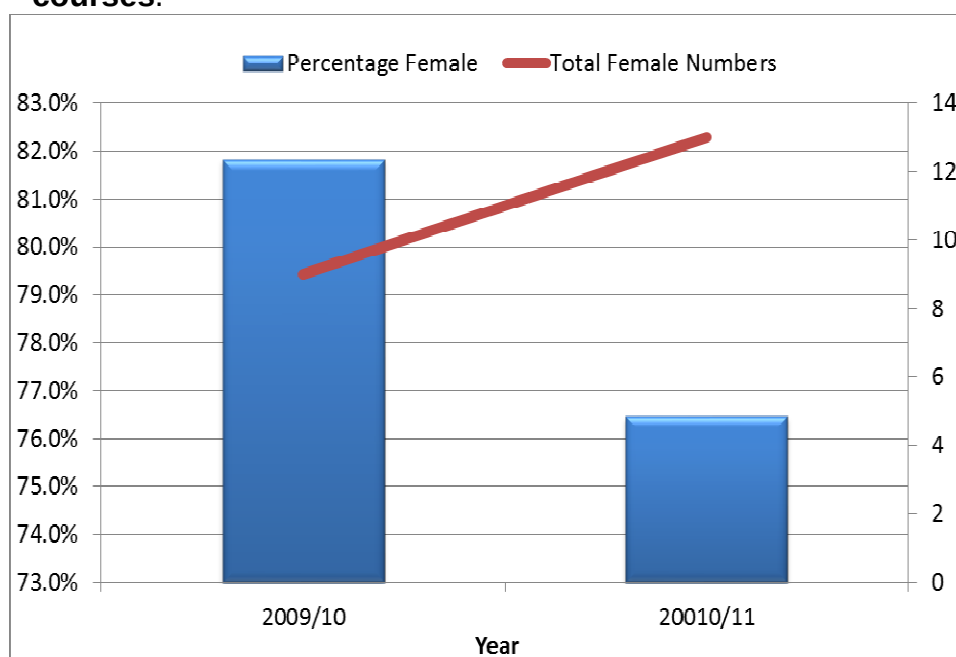
(ii) **Undergraduate male and female.**



Since 2007/8 (the academic year following our first Athena SWAN award), we have had a growing number of female undergraduate students. In 2010/11, 49% of undergraduate students were female. Highlighted in green above, are the Higher Education Statistics Agency (HESA) acquired statistics (HESA data enquiry ref: 32611) for % female students studying Chemistry courses in the UK, which in 2010/11 was 43%. We have therefore almost completely achieved a 50:50 ratio of female:male students, sitting 5% above the UK average. We aim to continue this trend and strive to achieve a constant 50:50 ratio in the future.

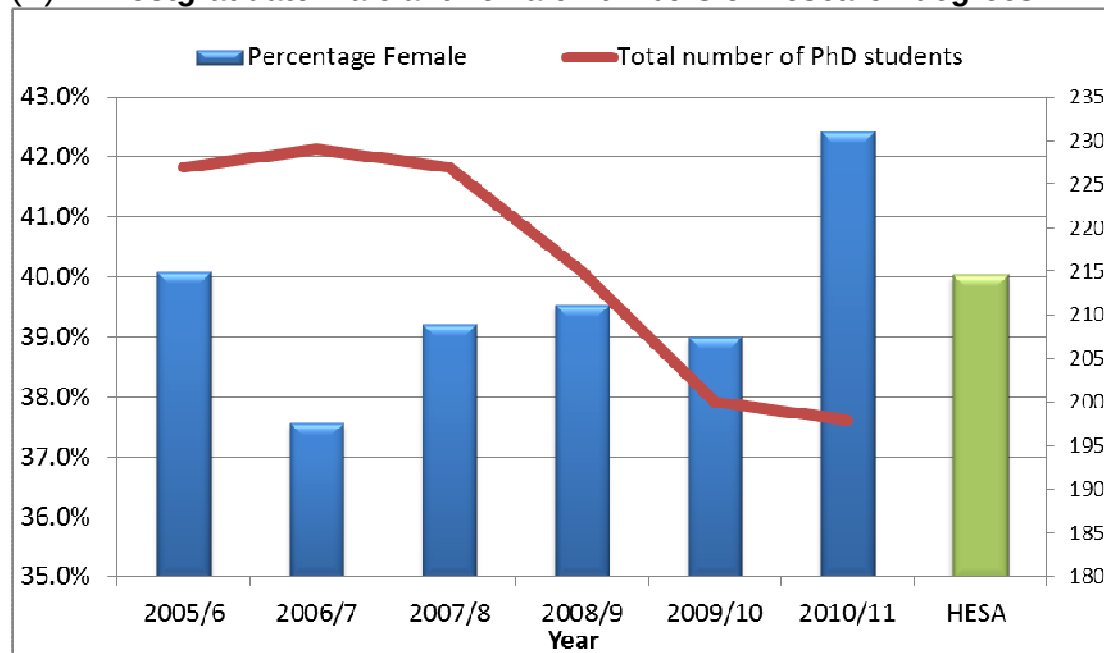
Action 4C

(iii) **Postgraduate male and female numbers completing taught courses.**



Prior to 2009, no taught postgraduate students were enrolled within the School. The numbers of students here are too small for meaningful statistical analysis. Nevertheless, postgraduate study of Chemistry in the School is very popular with female students, with most taught postgraduate students being female.

(iv) Postgraduate male and female numbers on research degrees.



Though in general PhD student numbers have fallen over the last three years, the PhD cohort has over the last 6-years averaged at 40% female. In 2010/11, 42.4% of PhD students were women, giving us the highest percentage achieved within the last 6-years. Highlighted in green, are the Higher Education Statistics Agency (HESA) acquired statistics (HESA data enquiry ref: 32611) for % female postgraduate students studying Chemistry in the UK, which in 2010/11 was 40%. We currently therefore sit 2.4% above the UK average for % female postgraduate students. We plan to continue growing our PhD cohort to achieve a 50:50 ratio of female :male postgraduate students. The drop in percentage female students from undergraduate to postgraduate level is small but significant. At present we do not know the reasons for this. As is apparent in a later plot (section 3b(vi)) our female students are typically higher achievers than our male students at undergraduate level. We actively encourage our top students to move elsewhere for PhDs to broaden their experience and this may lead to the observed effect.

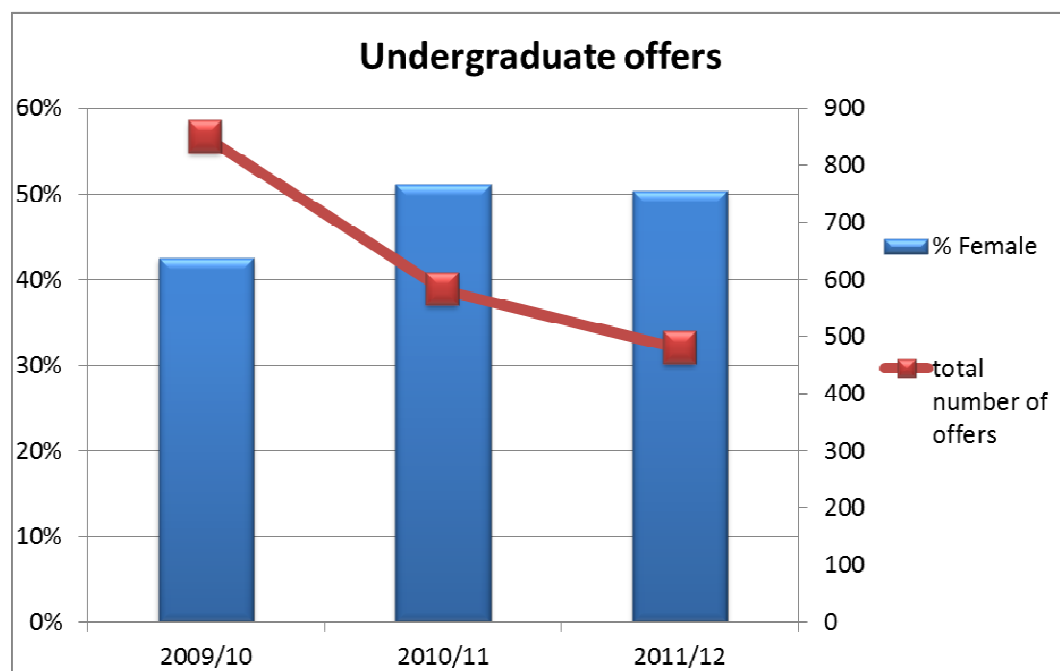
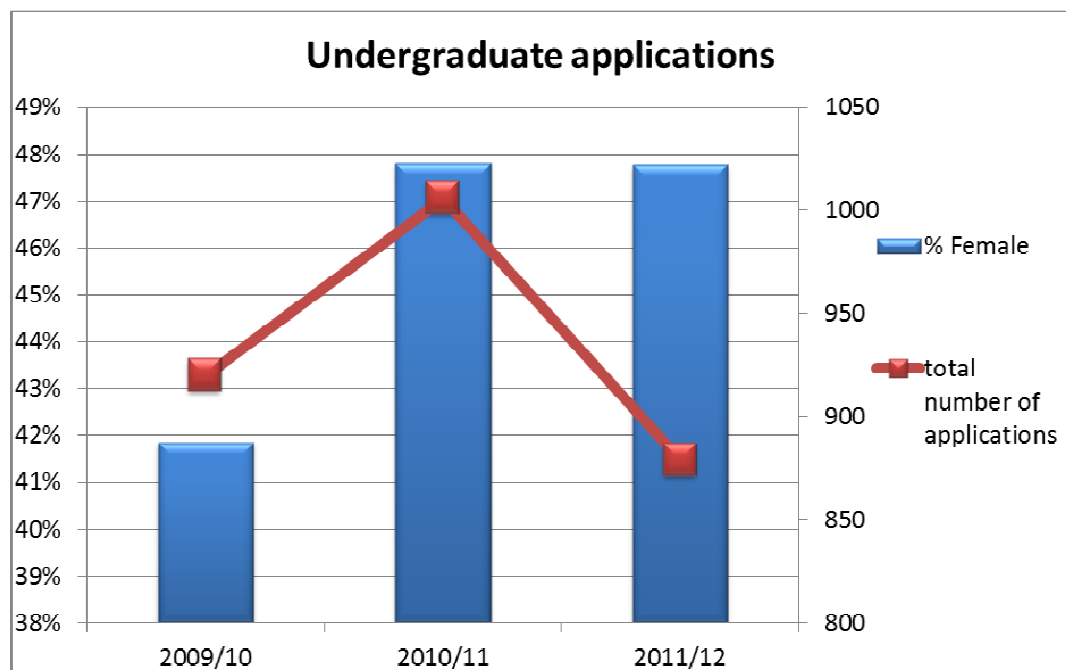
Action 4D

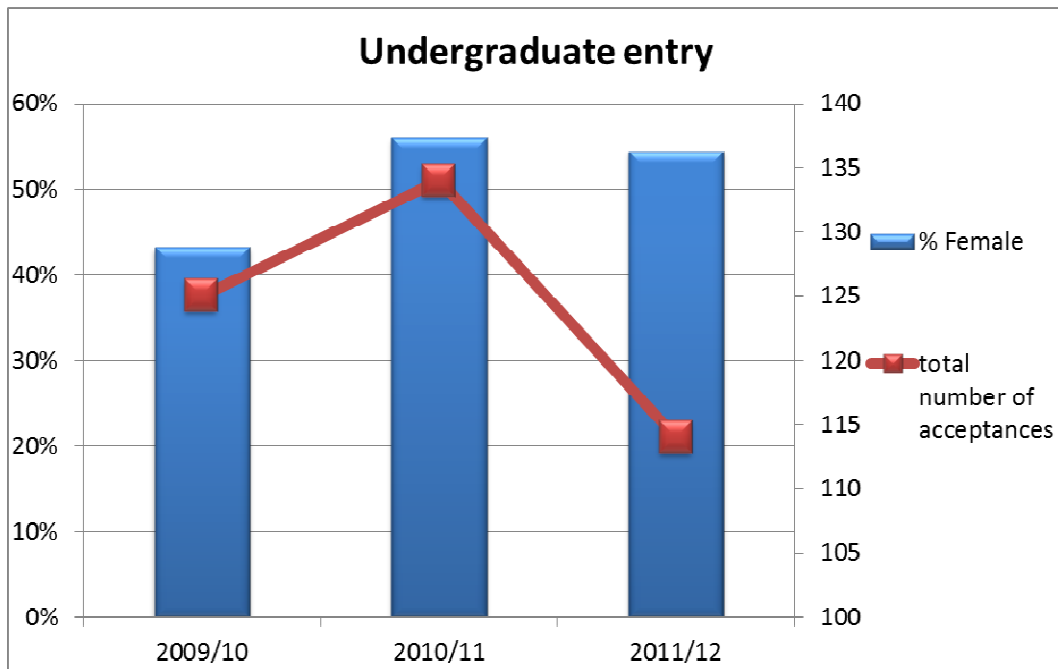
(v) Ratio of course applications to offers and acceptances by gender for (ii), (iii) and (iv).

Until 2009/10, the University's combined student data systems did not allow this data to be provided. Only data from the last three years have therefore been included in this report.

The undergraduate courses in the School are extremely popular with over 7 applications for each place. The percentage of female students over the last 2-years has averaged at 55% (of an intake of 248). This is high for a Chemistry department in the UK (HESA stats for 2010/11 were 43%, see above).

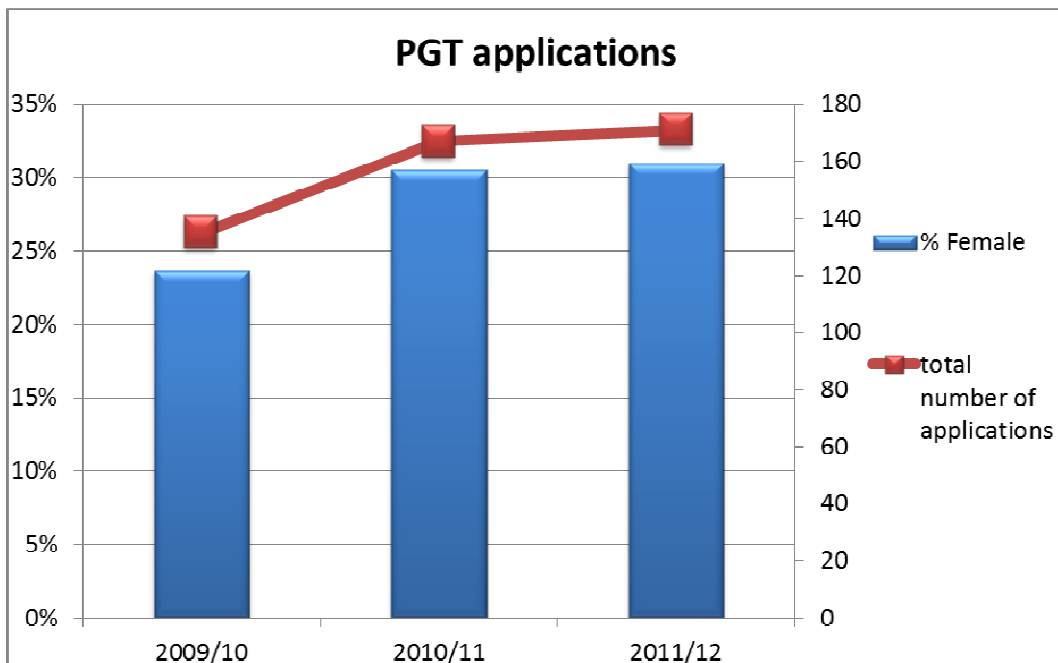
Undergraduate Taught Courses

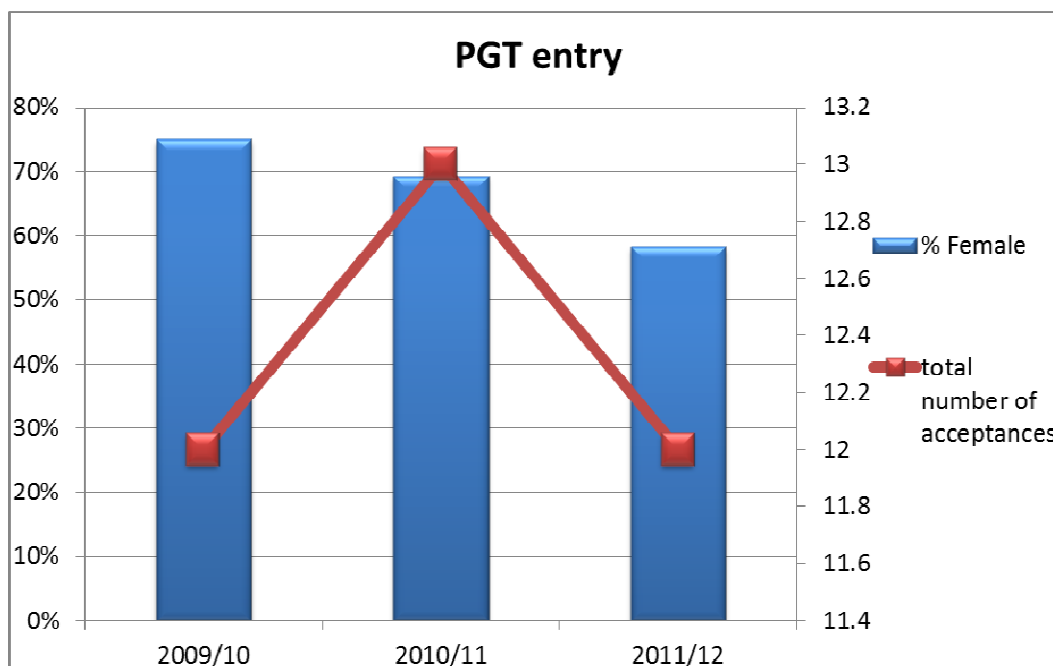
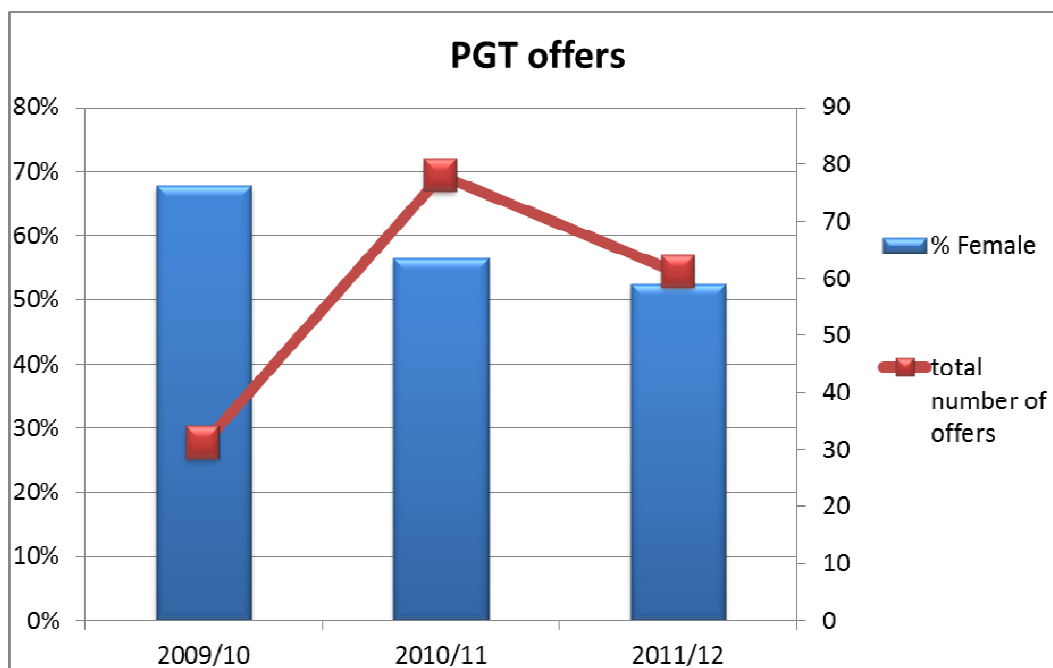




These statistics highlight our almost 50:50 ratio of female:male undergraduate students, with percentage applications, offers and entry all varying within 5% of each other. The percentage of female students over the last two years has averaged at 55%, however in the last two years 48% of applications were received from, and 50% of offers made to, female students.

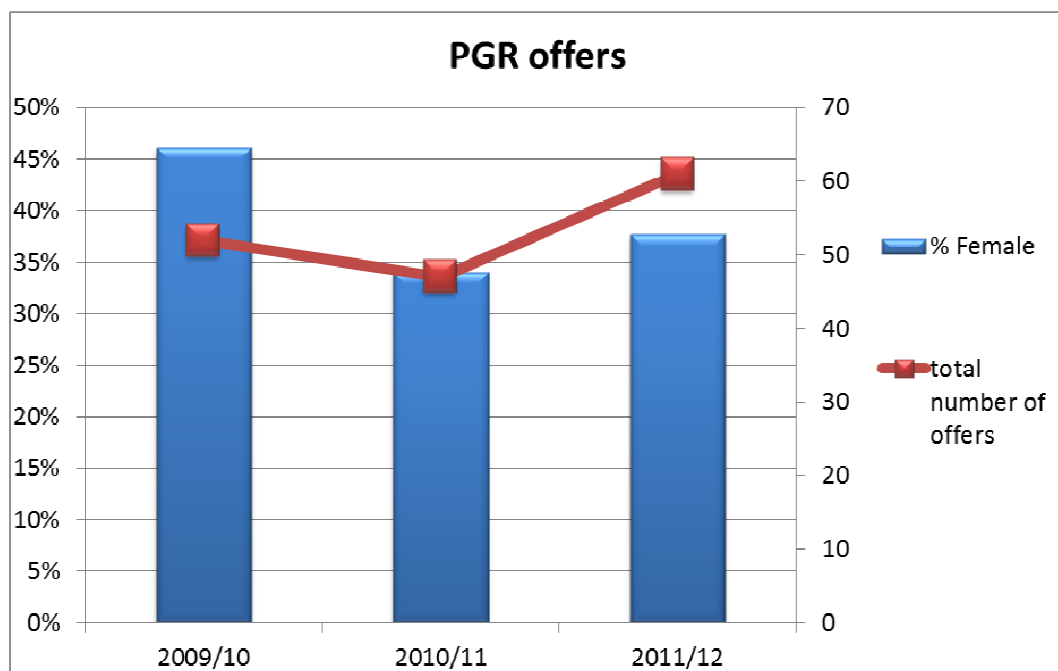
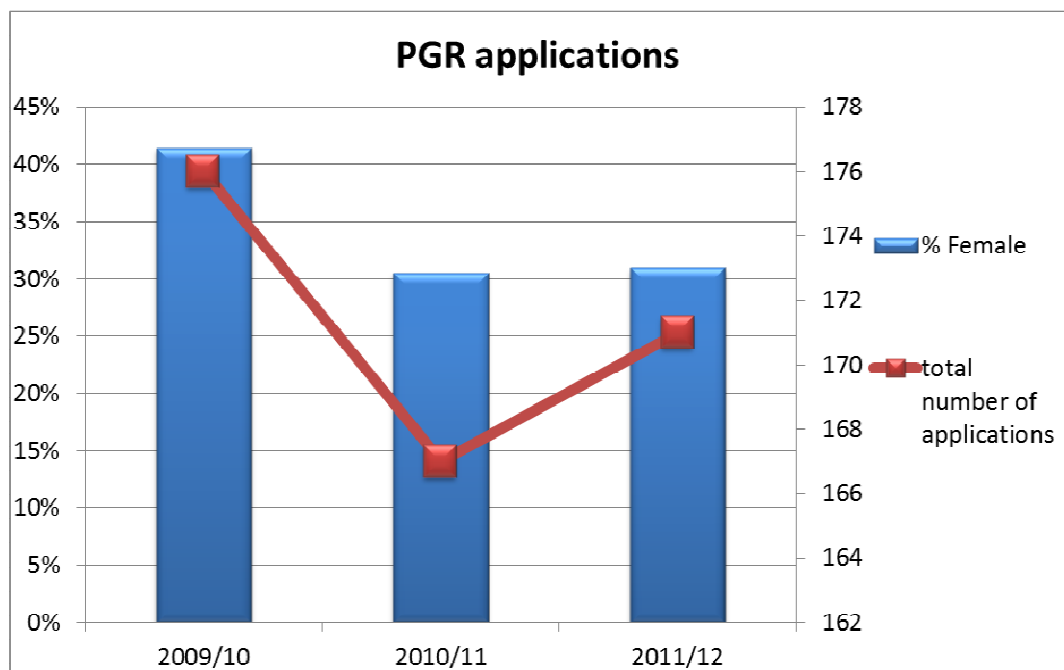
Postgraduate Taught Course (PGT)

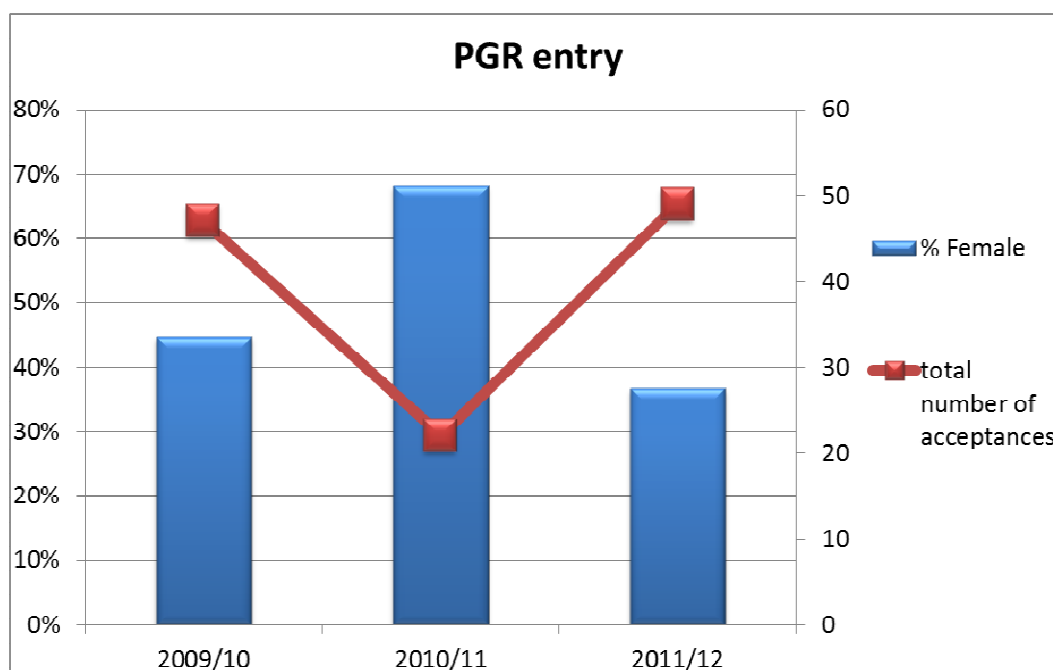




Although only 31% of PGT applicants are female, 51% of offers and 58% entry are achieved for female PGT students within the School in 2011/12. Note that the numbers are small and it is difficult to draw conclusions from these statistics.

Postgraduate Research Degrees (PGR)

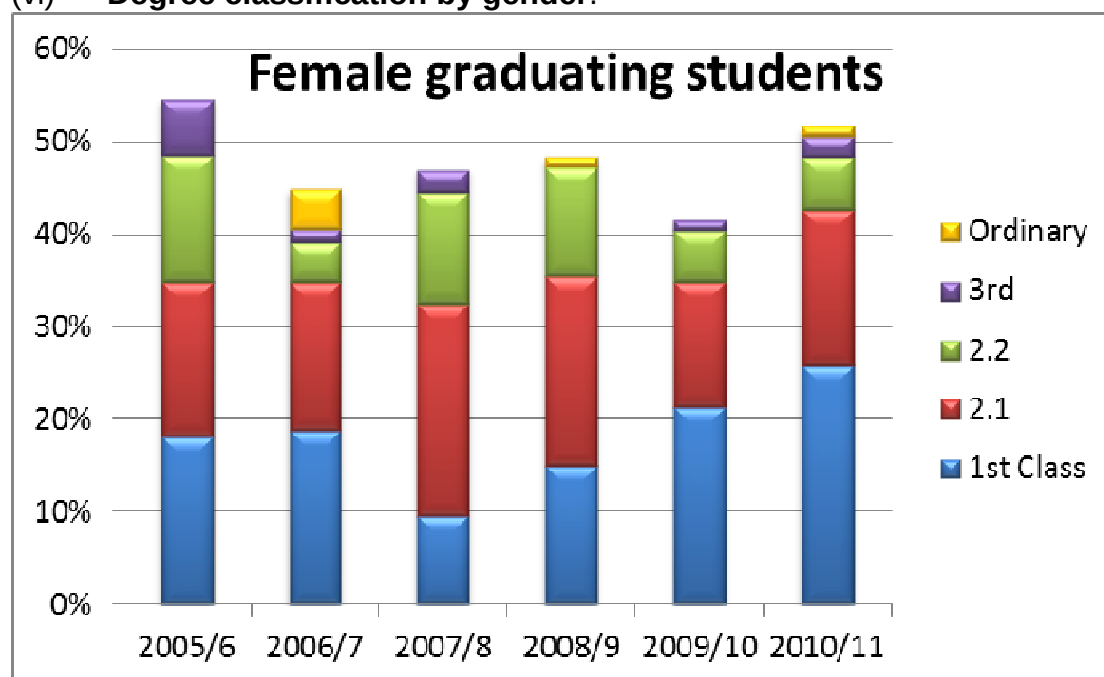


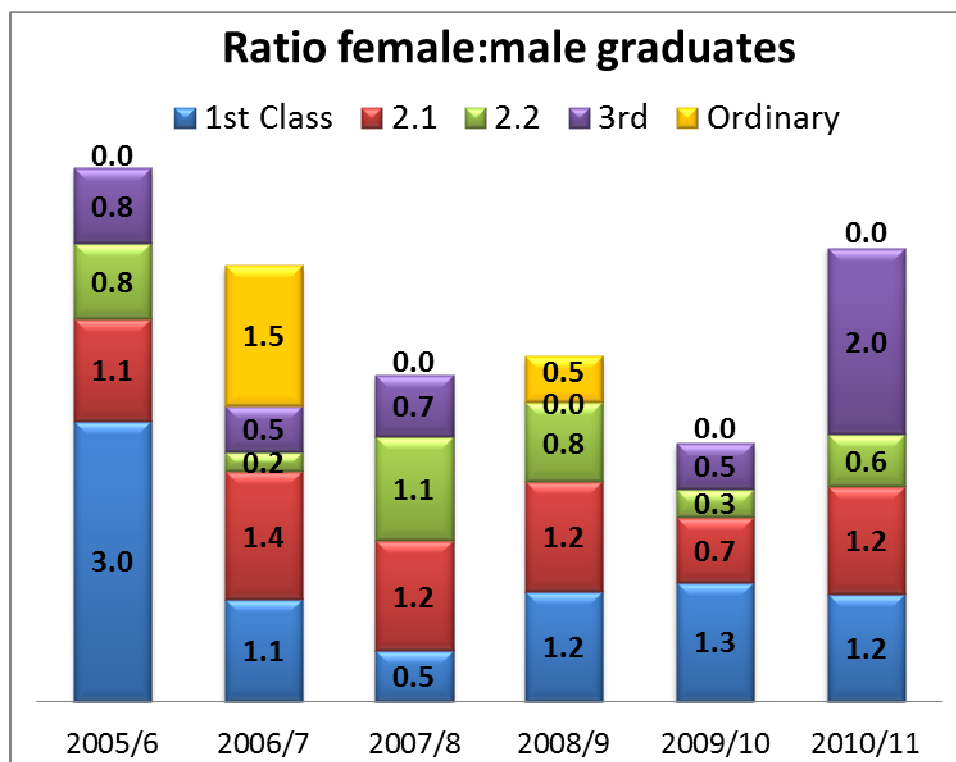
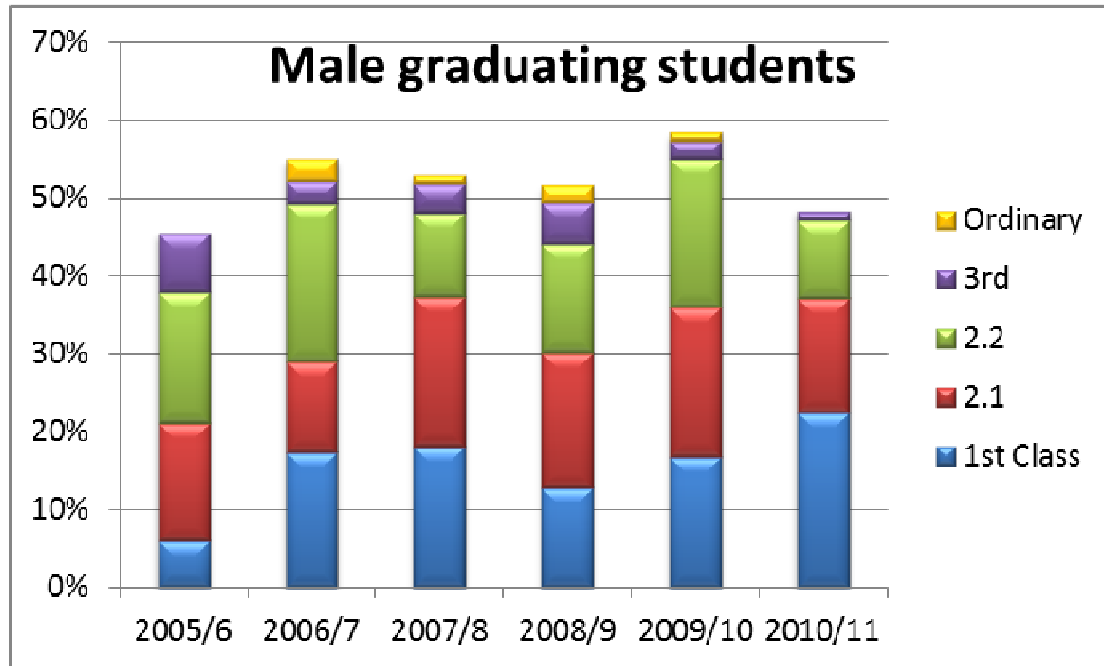


Although only 31% of PGR applications were female in 2011/12, 38% of offers and 37% of entry female PGR students was achieved in the School. There is a strong fluctuation in the numbers and it will be important to follow the trends over a longer period and to introduce a mechanism to record the destination of our own female undergraduates in order to develop a medium-term strategy to improve the percentages where necessary. We will also actively engage our student representatives (undergraduate and postgraduate) to ascertain any potential reasons for such a drop and develop a strategy to achieve a 50:50 ratio.

Action 4D

(vi) **Degree classification by gender.**





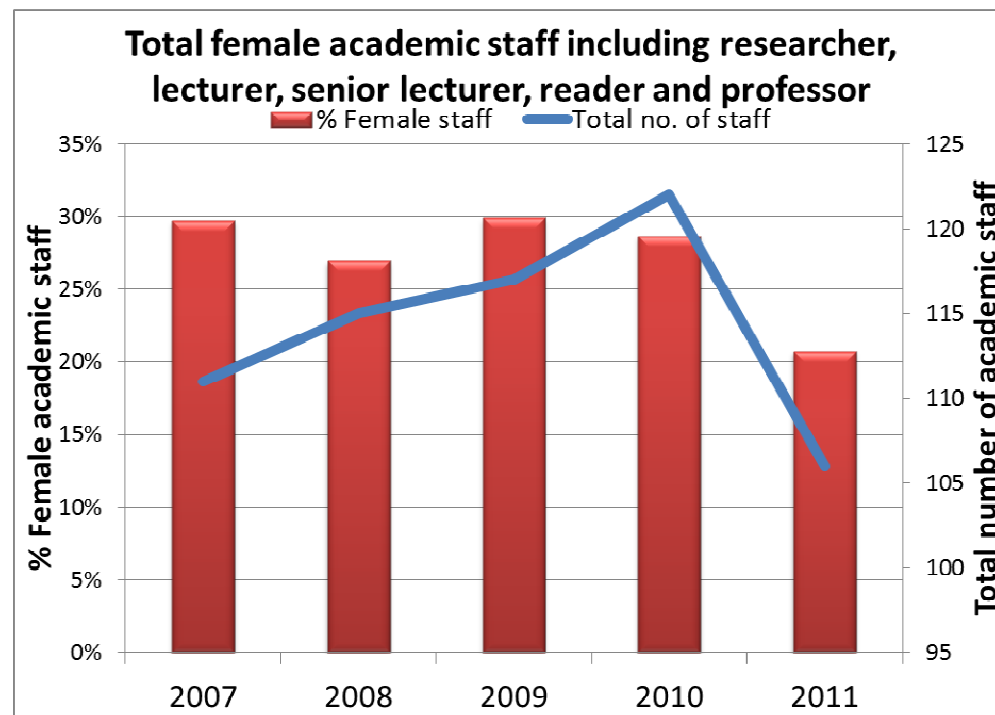
The ratio of female:male students is dominated by numbers >1, for the higher degree classifications indicating that female students slightly outperform their male counterparts, particularly for 2.1 and 1st class degrees. This is highly encouraging for our female students, though the reason for this is currently unknown, and we aim to investigate it further.

Action 1D

Staff data

(vii) Female:male ratio of academic staff and research staff

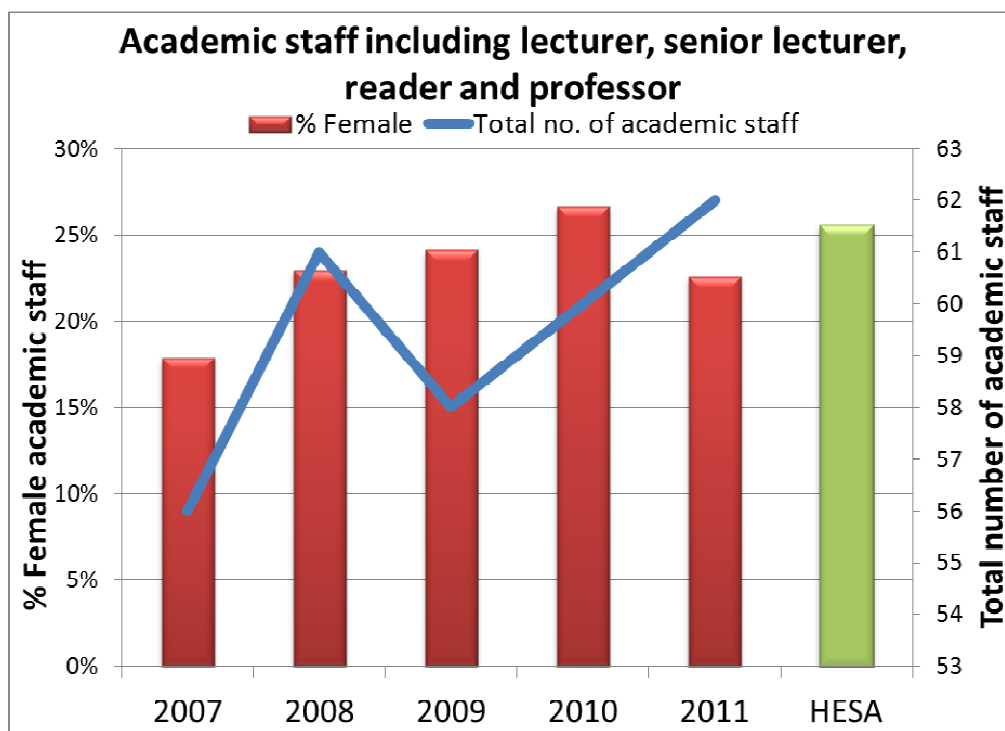
Overall research staff numbers



In the School, we have had a reduction in overall staff numbers; in particular the number of research staff has fallen by 23% (14). It should be noted that the decrease in numbers does make any loss in female staff more significant; an increase in female postdoctoral researchers by six for example, would increase the %female staff to 2010 levels (28%). It is, however, unclear why the overall reduction in numbers in 2011 seems to particularly affect female staff. We will closely monitor these statistics to determine if 2011 is a “blip” or if there is a continuing trend.

Action 4A

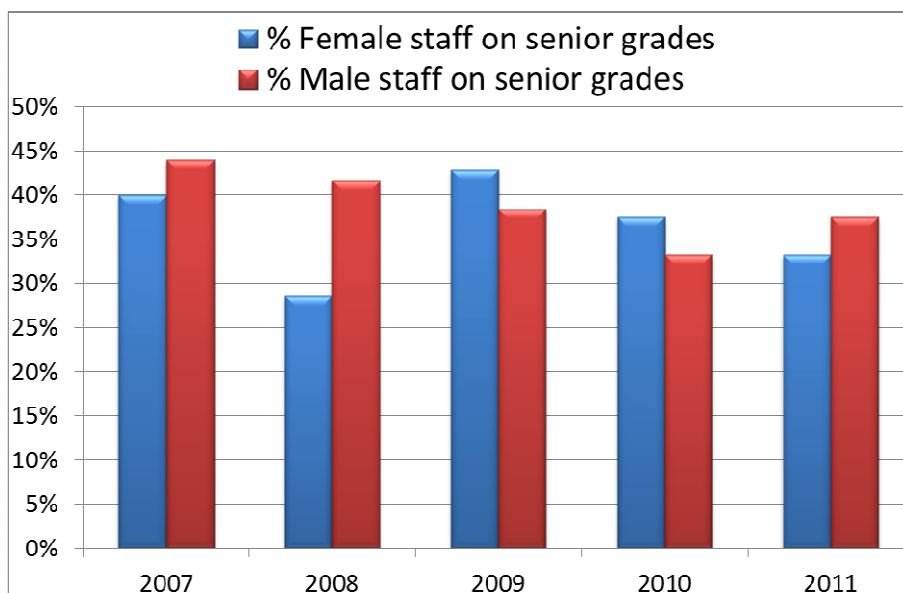
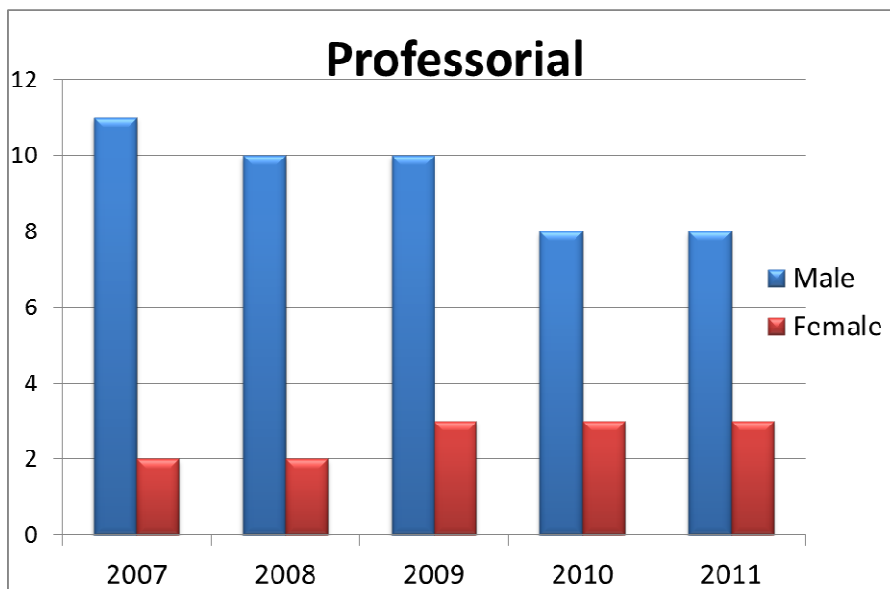
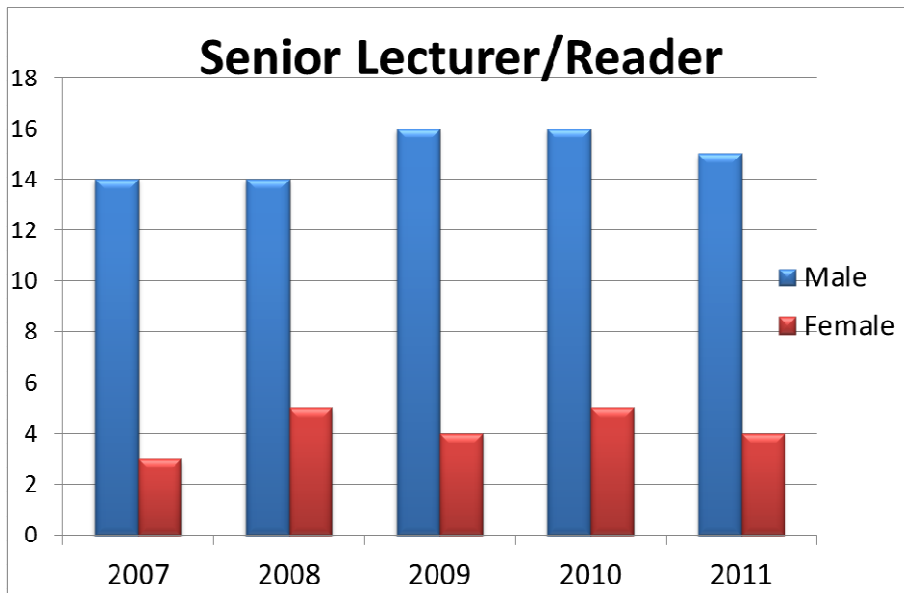
Academic Staff



Between 2007-2010 we have had a continuous growth in the percentage of female members of academic staff, until a slight drop in 2011. Highlighted in green, are the Higher Education Statistics Agency (HESA) acquired statistics (HESA data enquiry ref: 32611) for % female academic Chemistry staff in the UK, which in 2010/11 stood at 26%. In 2010, our School was comparable to this, with 27% of our academic staff being female. The slight drop in 2011 is due to the successful recruitment of a number of our female members of staff in the last year to new senior academic positions elsewhere. These include Dr. Sarah Masters (a previous research fellow, appointed to a lectureship at the University of Canterbury, New Zealand), Dr. Cristina Flors (a previous RS-URF appointed to a permanent post at the Madrid Institute for Advanced Studies), Dr Rosario Sanchez-Martin (a previous Dorothy Hodgkin Fellowship holder, to a permanent Lectureship at the University of Granada) and Prof. Serena Margadonna (a previous Reader, appointed to a Chair at the University of Oslo, Norway).

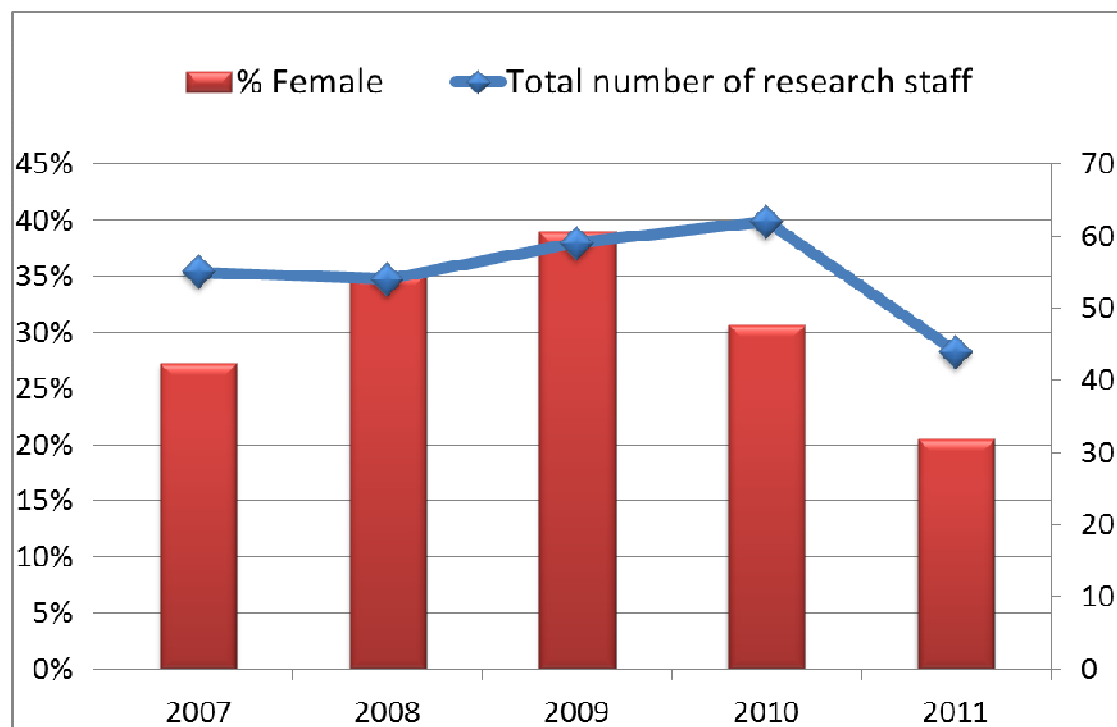
The School actively supports young independent researchers (both female and male) and allows them to flourish, providing them with the means of rapidly developing their careers. This naturally makes them attractive to other HEI. We consider the recent loss of female members of staff to be a positive rather than negative reflection on the practices within the School.

Actions 4A&B



From 2007 onwards, we have had an almost equal proportion of female and male members of staff in senior grades (senior grade refers to grades of senior lecturer and above), with a slightly greater percentage of female staff in senior grades in 2 of the last 5 years.

Research Staff (postdoctoral or research)



There has been a general trend to decreasing numbers of postdoctoral and research staff (as seen above). It should be noted that because female staff numbers are smaller than male, any loss in female researchers appears much more significant; an increase in female postdoctoral researchers by four for example in 2010/11, would increase the %female staff from 20% to 30%. However, the trend toward a lower number of female staff is a cause for concern. This is reflected in the application statistics for 5 year “tenure track” Research Fellowships recently announced across the University. Chemistry received 187 applications from external applicants of which only 41 were from females (22%). We will consider this with urgency in our Action Plan and work together with our undergraduate and graduate students and postdoctoral researchers to address the issues behind this apparent trend. It should be noted that postdoctoral research staff are generally recruited from outside the School. We will also collect information on the destinations of our PhD students to determine if a trend can be identified in those statistics.

Actions 2B&4A

(viii) **Turnover by grade and gender**

	2007			2008			2009			2010			2011		
	F%	M%	Total	F%	M%	Total	F%	M%	Total	F%	M%	Total	F%	M%	Total
UE06	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
UE07	5.5%	4.3%	4.7%	11.1%	15.6%	14.3%	12.4%	12.4%	12.4%	21.6%	12.2%	15.1%	21.3%	4.8%	8.9%
UE08	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	6.7%	4.8%	24.5%	0.0%	6.5%	0.0%	0.0%	0.0%
UE09	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	24.5%	6.4%	10.1%
UE10	0.0%	9.1%	8.3%	0.0%	0.0%	0.0%	0.0%	10.4%	8.6%	0.0%	10.3%	7.9%	0.0%	0.0%	0.0%

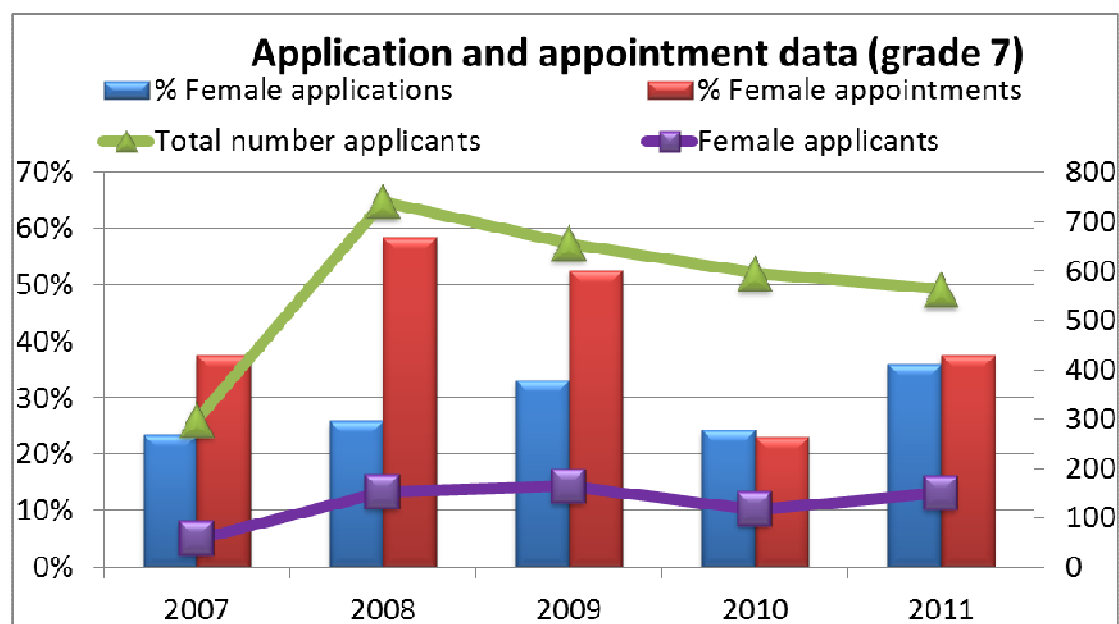
The number of staff leaving the Chemistry department is very small. Over the last two years, only 9 members of the permanent staff have left, and include the 4 female staff members mentioned in section 3b(vii) above, one retirement, one elected chair at a department outside Edinburgh (promotion), and three support staff (two members of staff moved for promotional reasons, the third moved to a different department within the University). There does not appear to be a significant gender difference in these statistics.

Supporting and advancing women's careers – maximum 5000 words

4. Key career transition points

- a) *Provide data for the past five years (where possible with clearly labelled graphical illustrations) on the following with commentary on their significance, how they have affected action planning, and any improvements since the department's Silver award.*

(i) **Job application and success rates by gender and grade.**



Job application and success rates for UE07* are shown above. In 4 of the last 5 years, success rates for women have been higher than men.

In grades UE08* or greater, seven members of academic staff have been hired during this period, three of whom were female (43%).

*For grade scale, see section (ii) below.

(ii) **Applications for promotion and success rates by gender and grade.**

Over the last 3-years the School has a 48% success rate in promotions. This is balanced evenly between both men and women, having 53% (9 of 17) and 43% (3 of 7) success rates respectively. 12% of both male and female staff have been put forward for promotion, highlighting equality within the School. This we believe is a direct result of the School identifying and encouraging women to apply for promotion.

The data is analysed by grades in the University of Edinburgh's grade structure and equivalent clinical and other grades. These correspond to typical academic job titles as follows:

Grade UE10: Professor and equivalent

Grade UE09: Senior Lecturer/Reader and equivalent research/teaching-focussed roles

Grade UE08: Lecturer and equivalent research/teaching-focussed roles.

Grade UE07: Associate Lecturer and equivalent research/teaching-focussed roles.

Year	Applications to School Promotions Panel						Successful Promotions					
	UE08		UE09		UE10		UE08		UE09		UE10	
	M	F	M	F	M	F	M	F	M	F	M	F
2008/9	2	1	6	1	1	2	2	1	3	0	0	1
2009/10	0	0	4	1	0	1	0	0	2	1	0	0
2010/11	0	0	3	1	1	0	0	0	1	0	1	0

Note: Promotions processes did not take place in the normal way in 2006 as the University was undergoing its pay and reward modernisation process and 2007 was a transitional year as new grading processes were being introduced with data straddling two different structures.

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.**

The School policy is to encourage women to apply for and accept posts by showing the University Athena SWAN Silver logo on advertisements and on the School webpage, ensuring female membership on recruitment panels, inviting HR to observe interviews (and at least one external observer) and stating work flexibility and family leave policy in recruitment material. This is all in-line with the University policy. The University is currently undertaking a cross-college recruitment project to assess and optimise mechanisms in the light of equality and diversity issues.

Action 1A

(ii) Support for staff at key career transition points.

Line Managers within the School of Chemistry are responsible for the recruitment, induction, personal and development objective setting, career development, motivation, leadership, workload and performance management of the staff they line manage. Within the School, we have successfully used the role of line managers to encourage female academic staff, particularly at a level of UE08 and above to apply for promotion, and help their career development whilst in Edinburgh. This is ratified in the ratio of female:male members of staff at senior academic grades (see section 3b(vii)). This scheme appears to have helped female academic staff within the School at UE08 and above to progress in their careers (see section 3b(vii)). However, the key area of attrition of female staff appears to occur both in staff at the UE07 level (postdoctoral and research levels), and at postgraduate level. Attrition of postgraduate students is discussed in section 5a(iii) below. In order to further promote postdoctoral staff in the school and encourage female staff to remain in academia, the following School policies have been applied (these are generally not specific to females but applied to all members of staff equally, regardless of gender);

School personal support

- All postdocs are given the opportunity to gain experience in teaching if they so desire. This typically involves teaching 1st year undergraduate students and is specifically aimed at the postdocs who may want to pursue a career in academic research or teaching. They are also given encouragement to work for a Postgraduate Certificate in University Teaching.
- Senior postdocs are supported in applying for EPSRC, Royal Society and Royal Society of Edinburgh fellowships. This is achieved by giving interview practice and guidance on their applications.
Over the last 12 years, 15 postdocs within the department have been successfully awarded Royal Society, EPSRC or Royal Society of Edinburgh fellowships, of which 8 were female. Over the same period 17 fellows have come from outside of the School, of these 5 were female.

Development training

- Postdocs are expected to undergo annual development appraisals, 66% of postdocs have undergone appraisals in the School so far this year. Final year postdocs are especially targeted to ensure support at this crucial stage. Appraisals identify career aspirations and in particular, discuss ways in which to enhance skills and progress their careers.
- Attendance at Roberts Funding-supported training and transferable skills training courses (including Career Management and Management Skills courses) has been promoted, and several events have been run in the School including 'Effective C.V. Writing', 'Video training for making podcasts', 'Technology Commercialisation' and a Chemical Sciences Careers Event.
- Postdocs are encouraged to supervise students at both postgraduate and undergraduate level. Training is provided by example from senior staff and targeted HR courses.
- New PIs are required by the School to take a new central HR course on 'Management', a course on running postdoctoral appraisals and to complete online Equality and Diversity training.
- New lecturing staff and Research Fellows are assigned a mentor, chosen from among the more senior academic staff in the School, for a period of at

least 5 years who provide them with help and advice concerning all aspects of their academic career.

Women in Science and Engineering (WISE) Networking Event.

- The recognition of the drop in percentages of females mainly at postdoctoral level prompted the organisation of a networking event aimed predominantly at young female researchers (postgraduates and postdocs) but open to all members of staff. This was initially planned to take place within Chemistry but was extended to incorporate all Schools within the College of Science and Engineering under the prompting (and with the financial support) of the Head of College. The first event took place on 20th April 2012, hosted by the School of Chemistry. The written feedback is currently being evaluated but the overall impression and oral feedback received on the day was very positive. The event consisted of a series of talks by distinguished invited female speakers in the morning ranging from scientific general interest talks to personal biographical talks; events to encourage networking such as a “speed-dating” and poster sessions and discussion break-out sessions in the afternoon where a range of topics of relevance to women in academic careers were discussed and a number of problems and potential solutions presented. Eighty participants signed up for this event with representation from all Schools. It is intended to make this an annual event. Issues raised at the break-out discussions will inform our Action Plan.

These schemes have mainly been introduced during the last 2-3 years and it is difficult to identify a positive influence yet based on the staff statistics. We will monitor this closely and will utilise data from School surveys, feedback from the Women in SET networking events and extended exit interviews with all staff to gain further insight. Once we have this data, the Athena SWAN self-assessment team / School Equality and Diversity committee will assess and present these data to the School, and identify and, with the support of the School Management Team, implement policies to further help postdoctoral staff progress in their careers. This falls in line with the results from the Good Practice' index (see section 2b above).

Action 1B&2C

5. 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 .

The School is committed to personal development, and review of its staff is achieved via a mentoring system whereby line managers are responsible for the career development of the staff they manage. So far this year, 66% of postdocs and researchers have had a formal appraisal, compared to 40% last year and 90% of academic staff (with the remaining 10% due to be appraised within the next month) compared to 45% last year. This is high compared to other Schools within the College of Science and Engineering (averaging at 55% for appraisals for both academics and postdocs); though more needs to be done here to ensure 100% appraisals are achieved every year, particularly for postdoctoral researchers.

Actions 2F&3C.

Postdoctoral researchers should undergo performance and developmental review meetings annually (P&DR). Supervisors must have attended the appropriate training course before any appraisal can be undertaken. During appraisals (P&DR) project progress, aspirations and skills/achievements of the staff are discussed and a note of action for the forthcoming year is documented, signed by both parties and the Head of School and a copy is filed centrally. These are regarded as important meetings to help progress postdocs in their careers, whether that is in industry, academia or elsewhere. The School also arranges voluntary P&DR-type meetings between postdoctoral and research staff and external representatives from industry (chosen predominantly from our alumni). The first of these events took place in 2010 and received very positive feedback from the staff who participated. It is intended to make this a biennial event.

Academic staff have P&DR's annually, and these are carried out by the appropriate Line Manager (typically the Head of Section). The aspirations and achievements of the staff are discussed and contribute to decisions of the School Promotions Panel which meets annually and consists of the three Academic Section Heads, the Director of Teaching and the Head of School. Successful cases are put forward to the College Academic Promotions Panel (consisting of all Heads of Schools, the College HR advisor, the Head of College, a representative from another College in the University and a Union representative). Any training and development needs of the member of staff are identified at the P&DR and acted upon. All staff P&DRs are formally recorded, and an agreed note of action completed, signed by both parties and the Head of School and placed in the personnel file; the School HR Administrator follows up any needs.

Staff who are directly responsible for P&DR reviews of other members of staff (including postdoctoral researchers) and who have not completed these, are ineligible for promotion.

The University has standardised academic promotions guidance and criteria that are openly available on the staff web pages and which take into account performance in research, teaching and leadership/administration (incorporating outreach and knowledge exchange activities). Promotion can be achieved on the basis of performance in at least two of the categories with the level of performance matched against the detailed published criteria.

Actions 2E&F

(ii) Induction and training.

All new members of staff attend an induction meeting with the School Administrator (SA), followed by a Welcome meeting with the Head of School. The induction meeting with the SA covers specific areas outlined in the School Staff Handbook, which is issued to new staff members along with the contract of employment. The SA introduces the administrative support functions of the School and details how these fit into the University structure. The discussion includes topics such as, roles and responsibilities of School staff, annual leave entitlement, sickness absence, terms and conditions of employment, expense claims, staff and stores cards, office key deposits etc. It is an opportunity for staff to ask questions about their role and contract. The School also circulates an induction checklist to PIs which acts as a prompt for their own discussions but also divides up topics to be covered between the PI and SA induction sessions.

All new postgraduate students attend an induction day during Fresher's week which covers information on the structure and expectations of the degree, monitoring procedures, supervisory arrangements, roles and responsibilities of School staff, ChemSoc, School Services, and Stores etc. There is also a compulsory safety lecture, Risk Assessment Lecture and Fire Safety Training which takes place during Fresher's week. The School has recently begun an 'Introduction to your PhD' event which focusses on the structures and milestones, with an overview of training and skills development.

Since our Silver Award, the School identified that no specific equality and diversity training was offered for new members of staff. The University provides an online Equality and Diversity training package. Completion of this training has now been implemented in the induction process and existing staff are being encouraged to complete the training package. To date 22% of academic staff have completed this training, and we aim for 100% completion within the next year.

The School ensures that recruiting managers have attended additional training sessions and it is essential that at least one member on every interview panel has attended interview training.

Action 2G

(iii) Support for female students.

There are a number of high-profile female role models in the School, with the last two Heads of School being female. Our previous Head of School, Prof. Lesley Yellowlees is the first female president-elect of the Royal Society of Chemistry, while our current Head of School (Prof. Eleanor Campbell) is a Fellow of the Royal Society. Also sitting on the management group is Prof. Polly Arnold, who is the current Head of Research and is a Fellow of the Royal Society of Edinburgh.

For postgraduate students, ChemSoc provides a number of female role models. Over the last 5 years, 4 of the last 5 ChemSoc presidents were women (section 6a(i)) ChemSoc runs a series of events, both social and training events. Over the last 5 years, these have included a 'Careers evening', where current members of staff (a female professor and a current research fellow) presented a short talk on how they managed to advance to their current positions. More recently, a College wide networking event for Women in Science and Engineering (WISE) was held in the School (see section 4b(ii)). The event was open to all male and female academic staff, fellows, postdocs and PhD students from the College of Science and Engineering and the School of Biomedical Sciences. The day included presentations from distinguished scientists, including: Sally Price (UCL), Fiona Rutherford (Shell Global Solutions) and Julia Buckingham (Imperial). These events were put in place as an action to the Good Practice Index (section 2b above).

The College of Science & Engineering also provide a PGR wiki, which provides help on progression reports, (1st year PhD students have to submit a formal report, while in the 2nd year of study a progress report has to be submitted, and a mock viva is carried out). Further details on thesis submission, a 'frequently asked questions' section, a section on concessions and details on how to make complaints and appeals is also included. Contact details are also given for Postgraduate secretaries and directors of the various Graduate Schools, as well as Postgraduate administration.

More recently, a postdoc-led group called KingsLinks (funded by the EPSRC) has been set-up whose aim is to encourage greater mixing and to initiate collaborations within and between the Colleges of Science and Engineering (CSE) and Medicine and Veterinary Medicine (CMVM). They have organised a series of events including 4 themed KingsLinks Colloquia. The aim of the society is to create a space for researchers (in particular PhD students, postdocs and young academics) across the University of Edinburgh with a general interest in a topical research theme to meet and connect.

PhD students are provided with at least 2 supervisors. One is directly responsible for supervising the research activities of the student, the other is an independent advisor. The student may specifically request a female advisor in the latter role. The supervisors meet formally with the student on an annual basis to discuss project and personal issues; the student can also meet independently with their supervisors at any time with typically at least a weekly meeting between the direct supervisor and the student. The student is given written feedback on their scientific progress after the formal annual meetings and a written record is completed and submitted to the College Postgraduate Committee. All PhD supervisors are required to attend supervisor training, and a record of attendance is kept. Supervision of a PhD student is not allowed unless the course has been attended.

The Edinburgh University Students Association [EUSA] Advice Place is an impartial advisory service for all students. There is also a dedicated Women's Club, run by the University which offers support for female postgraduates, postdocs and their families. The group run regular meetings and provide social support; local information and English lessons are offered. Children are welcome and crèche facilities are available

6. Organisation and culture

- a) *Provide data for the past five years (where possible with clearly labelled graphical illustrations) on the following with commentary on their significance, how they have affected action planning, and any improvements since the department's Silver award.*

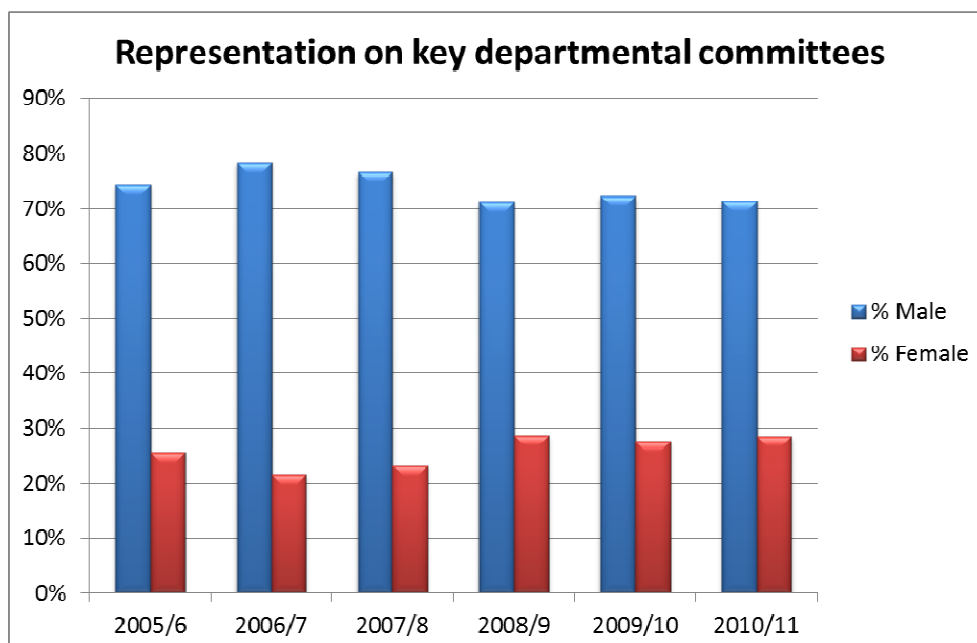
(i) Male and female representation on committees.

Women hold senior academic posts at all levels in the University management structure including the Chancellor, Secretary, Vice-Principals and Students' Association leaders. The School policy is to *not* proportionally increase the participation of women in management roles as this unnecessarily overburdens female members of staff. The School aims to ensure that females are fairly represented on all major committees.

The key committees that govern the School are:

Management Board
Safety Committee
Research Committee
Graduate School Committee
Graduate School Steering Committee
Graduate School Staff- Student Liaison
Studentship Allocation Committee
Recruitment Strategy Committee
Undergraduate Staff-Student Liaison Committee

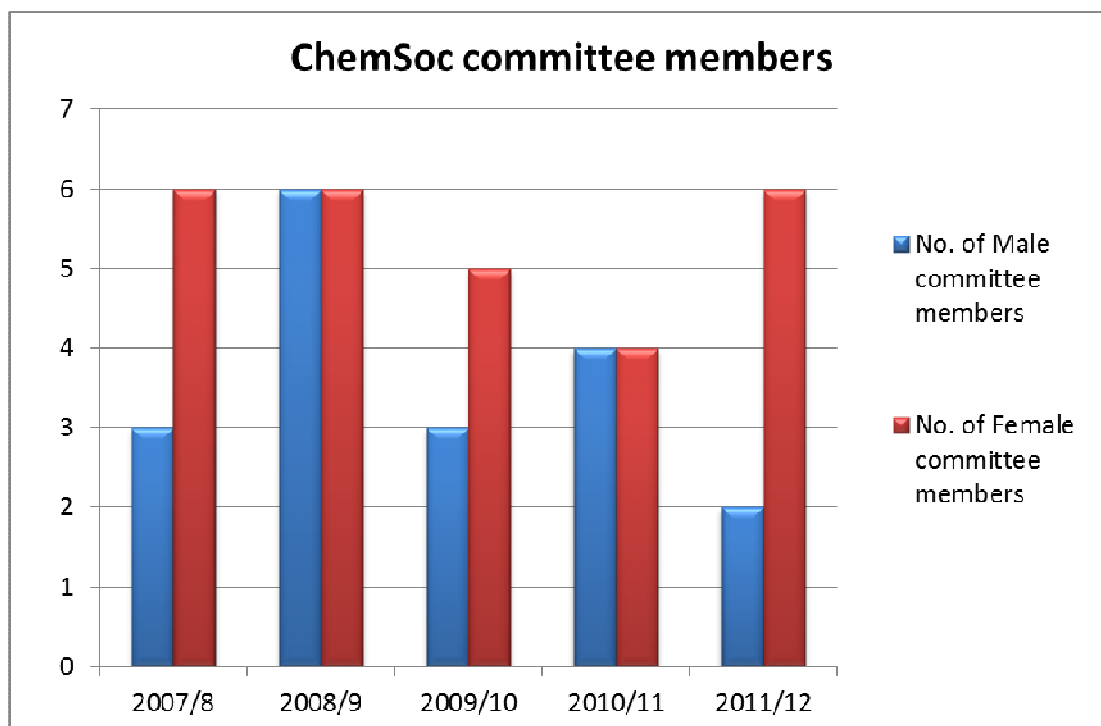
Board of Studies
Board of Examiners



These data encompass the key departmental committees outlined above. All committees have female members and they represent on average 26% of committee membership. The gender balance on committees reflects the academic gender balance in the Department.

Membership selection of the various committees is undertaken by coordinating with the appropriate line managers to ensure an equal representation between the Sections. The line managers take into account teaching and administrative workloads based on the workload model implemented by the school (see workload model, section 6b(ii)) and the research activities of the individuals concerned. This prevents unintentionally overburdening any member of staff with administrative roles in the department.

The procedure for selecting the senior management team (Head of School, Section Heads, Director of Research, Director of Teaching and Head of Graduate School) has been recently reviewed and is clearly laid out in a document that will be freely available on the School wiki. The procedure for appointing the Head of School and Director of Teaching is defined at University level and involves invitation to staff to apply and selection via interview where the make-up of the panel is clearly defined. Other senior management roles are appointed to by inviting the relevant staff category to apply (e.g. if it is a Section Head then staff allocated to that Section will be invited to apply). Applicants are interviewed by a panel selected by the Head of School with at least one representative from outside the School.



Female PGR students represent key members of the ChemSoc committee, which engages with both postgraduate and undergraduate students and organises various events, including postgraduate open days and social events. Four of the last 5 ChemSoc presidents were women, providing clear visibility of young female research Chemists to our undergraduate chemistry students. The School has a great history for participation of female students within ChemSoc over the years. This is clearly illustrated by comparing Pictures 1 and 2 below.

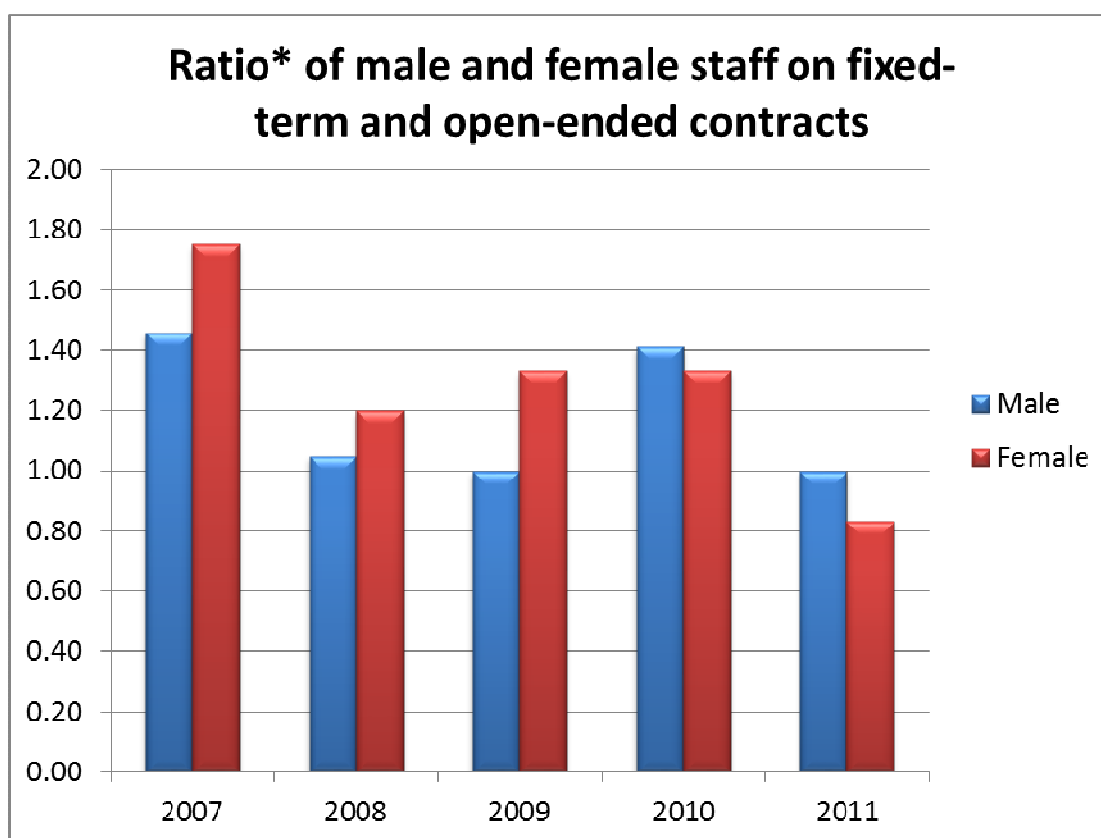


Picture 1: ChemSoc committee 2011/12



Picture 2: ChemSoc committee, 1931/32.

- (ii) **Female:male ratio of academic and research staff on fixed-term contracts and open-ended (permanent) contracts.**



*Ratio refers to fixed-term/open-ended contracted staff numbers. Shown here is a general trend to lower ratio of fixed-term:open-ended contract staff. This implies that relatively fewer members of staff are on fixed-term contracts. The differences between men and women on fixed- or open-ended contracts is minimal, and the drive here to fewer fixed-term contract staff is a consequence of the reduced postdoc and

research staff numbers. Where it is not possible to move fixed-term contract staff to open-ended contracts (due to funding limitations), staff are encouraged and supported to apply for positions within (and outwith) the School. In particular, tools can be utilised within the University, such as the 'Talent Register', which provides details of staff available for redeployment to those who are recruiting for staff in the University. Academic staff in the School are required to check this register for any qualified applicants when advertising for staff.

Action 4E

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.

The primary decision-making committee is the Management Board: members include the Head of School, Heads of Section (Physical, Organic and Inorganic), Head of Research, the School Administrator, the Technical Services Manager, Director of the Graduate School, Director of the Chemistry Teaching Organisation (CTO) and Head of IT services. Four (40%) of the ten members of the Management Board are female. Currently, 13 members of staff sit on College decision-making committees, of which 4 (30%) are female. Senior female staff members are very active nationally and internationally at committee level.

The range of committees and the ratio of female:male staff on these committees represents a fair administrative role in the department, while allowing female staff to participate in and influence a range of different committees.

Avoidance of committee overload (as discussed in section 6a(i)), is the responsibility of the line managers who ensure that administrative duties, including committee membership is taken into account when allocating duties. The local administrative and committee duties are fully reflected in the School Workload Model. Female staff, at present, do not appear on average to be overburdened with committee duties, but this will be regularly monitored.

Action 2A

(ii) Workload model.

The School has a points-based administrative and teaching workload model that it uses to ensure that teaching and administrative tasks are taken into account when planning workload allocations to its staff. The general principles include:

- All staff contribute to the smooth running of the School.
- All academic staff contribute, directly or indirectly, to Research, Teaching and Administration.
- The balance of these should, largely over time, be the same for all staff
- Staff can focus on one or two of these areas, as determined by the needs of the School.
- The workload model assesses the volume of work, not the quality of performance, as the aim is the fair allocation of duties.
- No attempt is made to quantify the volume of research work.

- The model is not intended to be used in a mechanical way to allocate duties; it is intended to be used as an information tool for Head of School, Section Heads and Director of Teaching.
- The details of the model are open and available within the School of Chemistry.
- 'Points' represent approximate hours.

The 'point's scheme' represents approximate hours spent on particular administrative or teaching duties. It is the Head of Section's role, as line manager to allocate teaching duties to their staff, and this is incorporated into the workload model. The model is sent to each member of staff, who must check, and agree that the model calculated for them is correct for each academic year. This approach gives members of staff the opportunity to query any concerns about the workload model, and they can discuss this with either the Head of School or Head of Section.

Working with 'women in science' initiatives is taken into account within the workload model, and is included in the 'Miscellaneous' section under Equality and Diversity.

The roles taken on by individual members of academic staff are discussed with their corresponding Head of Section at their annual appraisal. It is here that roles with a heavy workload and those which are seen as a progression in an individual's career are assessed.

The workload model was implemented in 2009, during our Athena SWAN Silver renewal submission, and has been extremely successfully in providing a transparent model for allocating teaching and administration duties.

Action 2D

(iii) Timing of departmental meetings and social gatherings.

Every effort is made to ensure that 'family friendly' hours are kept for departmental meetings and social gatherings. Committee meetings are held between the hours of 10:00-15:00, while academic staff meetings are usually held at 14:00. Departmental seminars are usually held between 13:00-15:00 in order to allow those members of staff on flexible working hours to attend.

Social gatherings usually take place at 16:00, including ChemSoc (see section 5a(iii)) run events, in order to allow members of staff to participate before heading home. The School also runs an intramural Chemistry 5-a-side football league, in which female members of staff and students are encouraged to take part. The department also has an annual barbeque, where members of staff, students and their families are invited. This usually takes place during the afternoon on a Saturday in September, and is made as inclusive as possible.

The School does not have a 'core hours' policy and every effort is made to implement flexibility in working hours whenever desirable and possible. Evidence for this can be seen in both case studies 1 and 2 (section 10).

Action 3C

(iv) Culture.

The Head of School operates an open door policy and encourages staff to discuss matters with her informally. She meets every new member of staff at all levels of employment during their induction into the School and is a firm believer in making all

decisions within the School as transparent as possible. This is demonstrated by the initiation of a School wiki in which minutes from all School committee meetings are made available to all members of staff. Important information, decisions and policy changes are specifically emailed to all members of staff in addition to being made available on the wiki.

The School has also created a designated 'quiet room' within the building, where members of staff who return to work after maternity leave, but are still breast feeding can express milk in comfort. The room is fitted with a refrigerator, sink and armchairs.

In order to create a sense of community within the school, a quarterly newsletter has been running since 2009. Here, news regarding academic promotions, retirements, celebratory events within the School, academic excellence (awards and publications), marriages, birth of children and communication of science to the public are publicised. Since 2010, the "staff coffee room" has been opened up to postdoctoral researchers, postgraduates and undergraduates to encourage closer, informal interactions.

Talks on the Athena ethos, where the remit of the Athena SWAN self-assessment team and the advantages for the School in taking part in the self-assessment process have been presented, have been given at staff meetings by the current Athena SWAN coordinator.

All of the above, along with incorporating flexible working hours, and a friendly and collaborative research and teaching culture within the School provide the Chemistry department with a very positive atmosphere in which to work. We believe that this encourages our female undergraduate and postgraduate students, and academic staff, however we have no direct evidence for this. In order to ascertain whether this is the case, an 'organisation and culture' survey will be undertaken, to ascertain opinions from female students and staff.

Actions 1C, 5A, B&C

(v) Outreach activities.

The School has a rich and diverse outreach programme, with over 24 different events organised over the last three years (8 of these run annually). The programme is organised and coordinated by a 0.6 FTE member of staff devoted to Public Engagement Activities. These events include the Edinburgh International Science Festival, LEAPS summer school (section 3b(i)), and various other seminars and exhibitions. These events are aimed at a range of audiences, including young children (4-11 years), secondary school children (11-18 years) and the general public. The events also incorporate 'roadshows', where the department travels to various schools, social clubs and science festivals in the UK and Europe.

Having a good range of experience and staff involved in outreach activities is essential, and the presence of talented young female Chemists is an important part of encouraging the next generation of female Chemists. Out of the 224 members of staff, postgraduate and undergraduate students who took part in these events, 113 (50.4%) were female.

Outreach activities are highly rated during appraisals (P&DR's), and the Heads of Section (line managers) include this work in their overall progress reports. Currently, outreach activity is not formally incorporated into the workload model. Since many

staff members and students participate the overall load on one individual is typically relatively low (with the exception of the Public Engagement Officer who is employed specifically in this role), however there are members of staff who contribute significant amounts of time to these activities. This is an issue that will be addressed within our Action Plan.

Action 2D

7. Flexibility and managing career breaks

- a) *Provide data for the past five years (where possible with clearly labelled graphical illustrations) on the following with commentary on their significance, how they have affected action planning, and any improvements since the department's Silver award.*

(i) **Maternity return rate.**

In the last 5-years, 12 members of staff have gone on maternity leave, with 2 members of staff not returning to work. In both cases, exceptional circumstances regarding their children were the cause.

(ii) **Paternity, adoption and parental leave uptake.**

Year	Male	Female
2006/7	0	0
2007/8	1	1
2008/9	2	0
2009/10	4	0
2010/11	4	1

The uptake of paternity leave has increased since our Silver award in 2009. The only members of staff taking up paternity leave prior to 2009 were support staff. Since then, 5 members of academic staff have taken up paternity leave. We feel this is in part due to the culture within the department, which encourages academic staff to take paternity leave to support their partners.

Action 3D

(iii) **Numbers of applications and success rates for flexible working by gender and grade.**

In the last 5-years, five members of staff (all female) have applied for flexible working. All of these were successful and fully supported by the department. Three members of the technical support staff (two male, one female) have successfully requested flexible working during 2011/12.

- 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.**

No male member of staff has requested flexible working hours during the period 2006/7 – 2010/11. Details of female staff across grades UE07 to UE10 are given below.

Number of female staff taking flexible working across grade scales.				
Year	UE07	UE08	UE09	UE10
2006/7	0	0	0	0
2007/8	1	1	0	0
2008/9	0	1	1	0
2009/10	0	1	0	0
2010/11	0	0	0	0

All staff are encouraged to discuss with their Line Manager possibilities for flexible working at any time. Within the last three years, the School has accommodated the requests of staff to work part time following maternity leave. This ranges from 0.5 FTE to 0.8FTE and covers different timetables, such as 5 half days or 3 full days. In order to maximise benefit, the part time hours have been fixed in advance so that meetings, teaching and other commitments can be accommodated to everyone's satisfaction.

(ii) **Cover for maternity and adoption leave and support on return.**

The School covers the cost of the University of the Edinburgh Maternity Pay option for all eligible research-funded female staff whose grant will not cover the cost.

Postdocs

For researchers, if there is a requirement for cover during an employee's absence on maternity leave, the line manager is responsible for obtaining the relevant approval from funding bodies and for making appropriate arrangements. The employee is not responsible for making these arrangements.

Academic staff

For academic staff, discussions regarding maternity leave cover and work arrangements depend largely on when the maternity leave falls and when the employee notifies the department of (i) their pregnancy, and (ii) their intentions for leave. If the potential maternity leave is known about at the time of the annual teaching planning meeting in April/May then line managers will ensure that it is taken into consideration in the following year's work allocation. Otherwise cover may have to be arranged during the Academic Year.

At the moment, individual academics are responsible for ensuring that their research responsibilities are suitably covered either by secondary supervisors or by delegation. Individuals are invited to discuss their planned return to work and any flexible working plans. Individuals' requests are considered on a case by case basis, but wherever possible flexible working is accommodated. As stated previously (section 7a(iii)), in the last 5-years five members of female staff have applied for flexible working, three of whom were academics. All of these were successful and fully supported by the department.

As stated in the Head of School's cover letter, action needs to be taken here to further support academic staff prior to, during and following maternity leave and we will work with the University's senior management to improve child care facilities for staff working at the Kings Buildings campus (the main location for the College of Science and Engineering, including the School of Chemistry). Child care is a crucial issue for many members of staff (female and male) and it is important that we work together within the College to ensure that there is sufficient provision for both pre-school and school-age children. This cannot be achieved at a single-School level but Chemistry will take the lead in lobbying for prioritisation of and investment in such facilities.

Actions 3A,B&4B

(Word count 4932)

8. Any other comments – maximum 500 words

On the journey to applying for Gold, the School, having been the longest serving member of the Athena SWAN charter within the College, has acted as a Champion for the Athena SWAN charter and its principles. This has been highlighted in quarterly meetings with the University's Athena SWAN Network, which discusses Athena SWAN initiatives developed by all departments across the whole University. Experiences and ideas are shared via formal meetings, an internal Athena SWAN wiki and mailing list. In these meetings (and outwith), Chemistry is frequently asked for advice on its experience of Athena SWAN, and the formulation and implementation of its Action plan.

We, as a School, are dedicated to the training of our students, and this is highlighted by our EUSA teaching awards (see section 3a above). Our implementation of the Director of Studies system, to help and encourage our undergraduate students, is used as a benchmark within the University. Further to this, in February 2012 the University also abandoned traditional lectures and tutorials for a limited period to enable staff and students to explore new ways of teaching and learning in an 'Innovative Learning Week'. In the School we decided we would use the week to provide Chemistry students with opportunities to take part in activities that would enhance their employability skills, explore methods of communicating science to a range of audiences, and help make students feel part of the wider chemical community. This involved collaborations with Edinburgh College of Art, workshops on intellectual property, innovation, market research, marketing and simple financial management. In this regard, we are leaders in pioneering new ways to better train our students.

Over the last couple of years we have also introduced Career Development PhD Studentships within the School. This new type of scholarship programme provides a valuable opportunity for postgraduate research students to undertake a package of training and development which will help them to develop the necessary skills required to meet their career choices and offer them a breadth of development opportunities in areas such as teaching, public engagement, entrepreneurship, and research. Since 2009, 13 students have been awarded such studentships in open competition, 10 of whom (77%) were female. Predominately our students have concentrated their career development training in Teaching and Public Engagement.

9. Action plan

See appended document which is cross referenced to the above text

10. Case study: impacting on individuals – maximum 1500 words

Since our Silver award renewal, several initiatives have been successfully implemented from our Action plan, and include;

- The formation of a postdoc society that interacts with postdocs both within the School and across College (see KingsLinks, section 5a(iii)).
- Implemented career development provision for postdoctoral researchers (section 4b(ii)).
- Ensured that appropriate appraisal training is provided to new line managers and Principal Investigators (section 4b(ii)).
- Ensured the effective use of the School workload model in personal and career development planning (section 6b(ii)).
- Promoted Science as a career to girls/young women and to those from non-standard backgrounds using LEAPS and public engagement (sections 3b(i) and 6b(v) respectively).
- Continued to promote the ethos of the Athena SWAN Charter through formal staff meetings and informal chats (section 6b(iv)).
- Embraced diversity of backgrounds of staff and students, and encouraged understanding of the consequences of this diversity by formation of a School Equality and Diversity Committee (section 2c), and by providing inclusive events organised by ChemSoc and the postdoctoral society (KingsLinks).

On-going actions include;

- On-site nursery provision for the Kings Buildings Campus (see actions 3B&4B).
- Ensure the School continues to have a good percentage of female applicants for all jobs advertised (Action 4B).

All of these actions, implemented on our journey to applying for Gold have had a positive effect on our academic staff. The three Case Studies below have been chosen to demonstrate how our staff have benefited.

Case Study 1: Dr. Carole A. Morrison (member of the self-assessment team)

I was appointed as a Royal Society University Research Fellow at the School of Chemistry (SoC), University of Edinburgh, in October 2000. A lectureship position followed in December 2003, and promotion to Senior Lecturer in September 2010. I am also the Manager of the EaStCHEM Research Computing Facility.

My husband and I had a baby in February 2003, after which I returned to work on a part-time basis (0.5 FTE). Our second child arrived in June 2005, and from 2008 until 2010 I gradually stepped-up my working hours until I returned to full-time employment in August 2010, when our younger child starting school.

I should say from the outset that I feel I am an incredibly lucky mum (and scientist!): I have had the pleasure of spending quality time with my children, and witnessed all their little milestones, while managing to continue with a job that I derive an immense amount of satisfaction from. A substantial reason as to why I was able to manage my job on reduced hours for so long was because I was on a personal fellowship, and therefore had a reduced teaching load. The nature of my research (computational chemistry) also naturally lends itself well to working from home. I also had the full

support of my Head of Section and line manager: some negotiation with the Royal Society was required to enable me to work through part of my fellowship on a pro-rata basis, but with their strong support and action my 8 years funding was stretched to 10. In 2009 my line manager encouraged me to apply for a promotion to Senior Lecturer. He gave me lots of good advice with the paperwork, and I was delighted that my application was successful.

Maintaining a healthy work/life balance is not an easy task in any profession, but with a positive attitude from the employer and employee, we can get at least some of the way there. I have certainly benefited from the SoC's culture of recognising flexible working practices and home-working. Regular appraisals are vital, as they allow you to discuss where the pressure points are, and to explore potential solutions. An example of this involved my taking on the delivery of a new lecture course which was scheduled for 9 am slots. My line manager requested a change to 10 am, a small change, but one which had an enormously positive impact on my personal life. I can take my children to school every morning, and three afternoons out of five I am in the playground when the bell rings to take them home. My work/life balance is far from perfect, but with continued support from the SoC, it is just about manageable!

Case Study 2: Dr Paul Lusby (member of the self-assessment team).

Unlike many of my contemporaries, my route to an independent academic position didn't involve postdoctoral research abroad, instead I chose to stay in the UK, initially taking up a postdoctoral position with Dave Leigh at Warwick. My decision to stay in the UK was driven by both science - I was drawn to the group due to their pioneering work in the development of molecular machines – and also in part due to personal circumstances – I wanted to live in the West Midlands, as my partner, Becky, was training as a clinical scientist in the Birmingham area. Ironically, not long after starting at Warwick, Dave announced that he would be moving to Edinburgh! Fortunately, within the next 12 months Becky had found a clinical scientist post in Dundee, which allowed us both to move Scotland, where we decided to move to Kinross, and both commute to work.

Following the move to Scotland, I carried on working with Dave for the next five years, and from 2003 additionally contributed to the undergraduate teaching programme within the School. From a research perspective during this time I was given the academic freedom to explore my own research ideas, and in addition co-supervise a series of keen PhD students. After unsuccessfully applying for Royal Society University Research Fellowships (URF) in 2004 and 2005, I was awarded one in 2006, which was shortly followed by an independent lectureship position. I have no doubt that the support I received from the School played a large part in the successful award of a URF. Since this time, both Becky and I have been blessed by the arrival of Isla in 2007 and Aaron in 2010. Managing to balance my fulltime academic position with Becky's 0.8 FTE principal Clinical Scientist post and childcare arrangements in the absence of family close by, and also significant commutes to work, continues to be a struggle, although without the SoC flexible attitude to working practises, I would say this would be verging on the impossible! Work-life balance pressures are also made significantly easier by working in a department where a large number of the younger staff has families of similar ages – in the organic section alone there are five faculty members who have pre-school age children. Working in the friendly and open environment of the SoC also has many benefits in research terms, most notably encouraging fruitful collaborations. For instance, my own research group has established links with groups in both the physical and inorganic sections.

Case Study 3: Professor Lesley Yellowlees

I was appointed to my first academic position in 1986 at the University of Edinburgh whilst pregnant with my second child. The Department of Chemistry, then as now, was enlightened as to its attitude to working mothers. Meetings were scheduled at reasonable times of the day, my research was encouraged through departmental funding of essential equipment, regular award of funded PhD studentships and the explicit agreement of the Head of Department to work from home – all invaluable to an ambitious academic with a young family. However it was all done on an *ad hoc* basis and depended on senior members of the department wanting to aid my progress. I was duly supported through the promotions process securing senior lecturer, reader and personal chair appointments at the first time of asking. Throughout this time I was given good, sound advice and opportunities from my senior male colleagues – there were no senior female ones around!

Around 2000 I became heavily involved with the Royal Society of Chemistry (RSC) and in particular with their extensive work on equality and diversity issues. This coincided with a new head of Chemistry being appointed at Edinburgh who proved to be a great champion of family life and a decent work/life balance. To my mind he was responsible for the shift in the culture of the department. Using the work of the RSC and Athena Swan the Department implemented wholesale changes resulting in better conditions for all staff which no longer depended on the sympathetic leanings of those in charge. One of the first measurable achievements of my term as Head of Chemistry at Edinburgh (the first woman to hold this position) was the award of the first departmental silver swan award in 2006. I became a mentor, encouraged flexible and part time working, spoke at national and international conferences on the benefits of positive working environments and tried to practice what I preached.

I now hold a senior post within the university – Vice Principal and Head of the College of Science and Engineering – as well as President-Elect of the Royal Society of Chemistry (the first woman in both roles) and make it a priority to remember the help and support I was given and to give back. For example, I have recently funded College-wide HR support for Athena Swan submissions. I never set out to be a role model but was, secretly, delighted when my daughter went to university to study Chemistry!