Athena SWAN Silver award application form

Name of institution: University College London
Year: 2009

Department: Chemical Engineering

Contact for application: Dr Eva Sorensen

Email: e.sorensen@ucl.ac.uk
Telephone: 2076793802

Departmental website address: http://www.ucl.ac.uk/chemeng/

Date of Bronze SWAN award: 01/03/2006

Applications at Silver level should demonstrate what the department is doing in addition to university-wide policies to promote gender equality and to address challenges particular to the discipline.

Click here for additional guidance on completing this form.

We recognise that not all institutions use the term ‘department’, and that there are many equivalent academic groupings with different names. If in doubt, contact Athena SWAN staff in advance to check whether your department, or equivalent, is eligible to apply.

It is preferable that the contact person for the application is based in the department.

Letter of endorsement from the Head of Department

An accompanying letter of endorsement from the Head of Department should explain how SWAN plans and activities contribute to the overall university strategy.

The letter provides the opportunity for the Head of Department to confirm their support for the application and to endorse and commend any activities which have made a significant contribution to the achievement of the university and departmental mission.

The letter should not exceed 500 words.
1. A picture of the department

Provide data on the following areas, and comment on their significance and how they have affected action planning. Data should be provided over a three-year period to enable comparisons to be made. The purpose of asking for this data is to identify what you are doing to create a pipeline for future appointments in your discipline, how you are attracting new staff and what you are doing to retain staff and promote them. The data also enable the recognition panel to get a snapshot of the department. If you are unable to provide any of the data please comment on the reasons for this.

We recommend that you use graphical illustrations to highlight the trends emerging from the data, in addition to providing the statistics and analysis. The tables and graphical illustrations must be included in a separate spreadsheet with the data clearly labelled.

There is a maximum of 100 words for the commentary on each section (i–xvi).

Student data

(i) **Numbers of males and females on access or foundation courses** – comment on the data and describe any initiatives taken to attract non-traditional groups of women to the courses.

The department itself does not run access or foundation courses but regularly takes students from other foundation courses, including UCL’s own "University Preparatory Certificate for Science and Engineering".

The preferred A-level choice for entry to our programmes is Chemistry, Mathematics and Physics, however, girls are under-represented in Physics after the age of 16 (http://www.iop.org/) and only 22% of A-level Physics students are currently female. Recognising this, the department widened its entrance requirements and now runs a first-year module "Physics for Chemical Engineers" for students without A-level Physics. This module is taken by approximately 20% of our intake, over 40% of which are female, a higher proportion than our entry as a whole.

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

The number of undergraduate students has almost doubled over the last 4-5 years. The increase is 98% for male students but only 69% for female students (see Illustration ii).

The percentage of female students has varied from 28 to 40% over the same time period but seems to have stabilised around 30% (Illustration ii).
The national average for Chemical, Process & Energy engineering is 28% (Ref: HESA Students in HE institutions 2006/07).

The department has no part-time undergraduate students.

The department will be addressing the imbalance by i) reviewing its publication material to attract more female applicants and ii) involving current female students in UCAS visits to attract more female acceptances.

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

The number of taught postgraduate students has ranged between 15 and 23 over the last 5 years, while the percentage of female students has increased dramatically from 20% to 48% over the last 4 years.

The completion rate is similar for male and female postgraduate taught students. The rate was higher for female students from 2003/4 till 2005/6, below in 2006/7, and almost the same in 2007/8.

The department has no part-time taught postgraduate students.

The MSc admissions tutor is actively encouraging female students to apply and to accept offers. The publicity material has a good gender balance and, in particular, student profiles of successful past female students are included. The effect of this has been very good with a substantial increase in the number of female students.

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

The number of postgraduate students has remained constant between 18 to 31 over the last 5 years, but the percentage of female students has increased dramatically from 26% to 46% over the last 4 years (Illustration iv).

The national average of female postgraduate students for Chemical, Process & Energy engineering is 28% (Ref: HESA Students in HE institutions 2006/07).

The PhD admissions tutor, as the MSc admissions Tutor (see iii), is actively encouraging female students to apply and to accept offers, and the effect of this has been very good with a substantial increase in the number of female students.
(v) **Ratio of course applications to offers and acceptances by gender for (ii), (iii) and (iv) above** – comment on the differences between male and female admissions and describe any initiatives taken to address any imbalance and the effect to date. Comment upon any plans for the future.

The department has experienced a large increase in the number of undergraduate applications over the past 4-5 years. At the same time, the number of both taught and research postgraduate applications has gone down although the number of acceptances is up.

For undergraduate students, the ratios of applications to offers and to acceptance is similar for male and female students.

For postgraduate students, the ratios appear to fluctuate but with a higher ratio of acceptance for female students.

The department will continue to monitor the applications ratios closely through the undergraduate and postgraduate admissions tutors. Changing the publicity material for undergraduates as for postgraduates (see iii and iv) will be considered.

(vi) **Degree classification by gender** – comment on any differences in degree attainment between males and females and say what action you are taking to address any imbalance.

The difference in attainment between male and female students fluctuates considerably from year to year as does the proportion receiving 2.1 or above. However, the total numbers are low and therefore not statistically significant. (The total has increased from 13 to 36 over the last 5 years and will continue to increase in line with the higher entry numbers.)

The attainment is closely monitored by the Departmental Tutor. In the past, there has been a weak correlation between entry level of individuals, their progression and attainment at graduation. In recent years, as average entry quality has risen, so has the average attainment of the group as a whole. The monitoring of attainment will continue, including that be based on entry levels to monitor value added.

(vii) **Length of time for postgraduate completion by gender** – comment on any differences in completion times between males and females and say what action you are taking to address any imbalance.

The completion rate for male and female postgraduate research students is similar and between 3.79 and 4.23 years.

The completion rate is closely monitored by the Departmental Graduate Tutor.
Staff data

(viii) **Number of male and female staff (academic and research) at each grade** – comment on any differences in numbers between males and females and say what action you are taking to address any underrepresentation at particular grades/levels.

The number of academic and research staff has remained almost constant at 13 over the last decade, however, two additional members of academic staff have joined in 2009, both male, bringing the current number to 15 (May 2009).

Three members of academic staff are female (two joined in 1996 and the third in 2001). All three are currently Readers (i.e. 18.8% female vs national average of 16.7% for chemical engineering (Illustration viii)).

The department currently has no female research assistants but will have one from August.

Over the last decade, the department has only employed new members of staff every ca. 2-3 years. The department closely monitors the application process and encourages female candidates to apply by using positive action statements according to UCL policy.

(ix) **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 you are taking to address this.

Details of the last three application rounds for academic staff:

2008: 2 male recruited and starting 2009
   (28 applicants of which 5 female, 1 female interviewed)

2007: 1 male recruited
   (data no longer available)

2005: 1 male recruited on fixed term contract
   (data no longer available)

The department is continuously monitoring the application procedures. At least one member of female staff will be part of the recruitment panel. Female candidates are encouraged to apply by using positive action statements according to UCL policy.

(x) **Turnover by grade and gender** – comment on any differences between men and women in turnover and say how you plan to address this. Where the number of women in the department is small you may wish to comment on specific examples.

The turnover within the department is extremely low and most likely a result of the supportive and friendly atmosphere.
Over the last decade, one member of male academic staff has resigned and one has retired. Two further members of staff are due to retire over the next 10 years.

No members of female staff have left.

(xi) **Maternity return rate** – comment on whether your maternity return rate has improved or deteriorated and say how you plan to improve further. If you are unable to provide a maternity return rate, please explain why.

The maternity return rate is 100%.

The two members of female staff who joined in 1996 have both been on maternity leave twice (Sorensen: 1998 & 1999/2000 and Angeli: 2002 & 2005/6) and both returned after around 4 months maternity leave.

Lettieri is currently on maternity leave and is expected to return in November 2009.

Upon returning from maternity leave, the teaching and administrative load is now reduced for at least one term (See also 2 viii).

(xii) **Paternity, adoption and parental leave uptake** – comment on the uptake of paternity leave by grade and parental and adoption leave by gender and grade and whether this has improved or deteriorated and say how you plan to improve further.

Over the last decade, two members of male academic staff have been on paternity leave out of two possible. Both took 2 weeks paternity leave with some further annual leave although both still attended some meetings and lectures etc during this period. Men will continue to be encouraged to take full paternity leave.

(xiii) **Promotion application and success rates by gender and grade** – comment on whether these have improved and say what further action may be taken. Where the number of women is small you may comment on specific examples of where women have been through the promotion process. Explain how potential candidates are identified.

The success rate for promotion application is very high. Over the last 3 years, only one member of staff has been put forward for promotion which was successful.

The progression of the 3 female members of staff has been:

Sorensen: 1996: Lecturer, 2000 Senior Lecturer, 2006: Reader  
Angeli: 1996: Lecturer, 2002 Senior Lecturer, 2006 Reader  
Lettieri: 2001: RAEng Research Fellow, 2006 Senior Lecturer, 2007: Reader
Potential candidates for promotion are identified by the Head of Department following staff appraisals and discussions.

(xiv) **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.

Membership of the departmental committees (*: chair):

<table>
<thead>
<tr>
<th>Committee</th>
<th>Members</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teaching Committee</td>
<td>5 Male*, 3 Female</td>
</tr>
<tr>
<td>Research Committee</td>
<td>5 Male*, 2 Female</td>
</tr>
<tr>
<td>Publicity and Recruitment Committee</td>
<td>4 Male, 3 Female*</td>
</tr>
<tr>
<td>Staff-Student Consultative Committee</td>
<td>2 Male, 1 Female*</td>
</tr>
<tr>
<td>Safety Committee</td>
<td>2 Male*, 2 Female</td>
</tr>
<tr>
<td>School Computing Committee</td>
<td>2 Male*, 1 Female</td>
</tr>
</tbody>
</table>

(See also 2 vi)

Potential members for a committee are identified based on a review by the Head of Department and the Committee Chair of the current committee membership and possible knowledge gaps, and the roles, skills, interests and development needs of staff.

The proportion of time spent by female staff attending meetings is accounted for in their workload.

(xv) **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 you may wish to comment on specific examples.

The department is small and there is a culture of trust where flexible working practices operate informally. Hence, all members of academic and research staff make use of flexible working and work from home on a regular basis. The arrangements for this are flexible as long as core commitments such as teaching, tutoring and research supervision are covered. In order to deal with external queries etc, staff are expected to let the Departmental Administrator know their whereabouts.

Four members of staff (2 male (Professor and Reader), 2 female (both Reader) also use flexible working around nursery and/or school drop off/pick up.

(xvi) **Female: male ratio of academic 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 you are doing to address them.
The department currently has 1 male member of academic staff on a full time fixed-term contract which will come to an end in September 2010. The department also has 2 male research staff on fixed contracts.

All female members of staff are on permanent contracts.

The Head of Department is actively working to reduce the number of full time fixed term contracts and his efforts have so far been very successful.

2. Initiatives to advance and support women in the department

Provide commentary on the thematic areas below, explaining what the key issues are in your department, based on the data above, what steps have been taken to address any imbalances, what success/impact has been achieved so far and what additional steps may be needed (maximum 200 words each for sections i–xii).

(i) **Promotion and career development** – comment on the appraisal and career development process and the evidence of gender balance in the process of identifying people for promotion.

The department is proactive in identifying and preparing women for promotion and women are being put forward for promotion, and are being promoted, at a similar rate and on the same basis as men.

Candidates for promotion are identified by the Head of Department through staff appraisals and he will discuss the application process with the candidate and give recommendations for the actual application. Although research is still considered the main promotion criterion, other criteria such as teaching responsibilities, pastoral roles and outreach, knowledge transfer and public engagement work are also considered as per College guidelines.

The requirements for each promotion stage is often discussed during staff appraisals. Shortcomings in terms of promotion are identified as well as plans for how to fill these.

(ii) **Support for staff at key career transition points** – comment on any initiatives, drawing out different approaches at different levels.

All members of academic staff are supported at key career transition points. The main support is from the Head of Department through staff appraisals where shortcomings in terms of promotion are identified together with plans for how to overcome them.

All new members of academic staff are appointed a mentor when taking up their posts and is supported by the mentor for 3 years. The mentor is normally a more senior member of staff, although not necessarily of the same gender, within the same research area who will help the new arrival in setting up his/her research as well as in any other departmental or college duties.
Personal development training is discussed and planned in collaboration with the Head of Department on a continuing basis and formally at all staff appraisals. Funding is provided by the department if not available elsewhere.

Leadership training is discussed and planned for more senior members of staff. Funding is provided by the department if not available elsewhere.

Professional networking within College and externally is strongly encouraged for all members of staff.

Significant achievements are highlighted during staff appraisals, staff meetings and wider departmental social gatherings.

(iii) **Flexible working** – comment on the numbers of staff working flexibly and at what grade 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 you raise awareness of the options available.

All members of academic and research staff make use of flexible working and work from home on a regular basis. The arrangements for this are informal but are flexible as long as any core commitments are covered and their whereabouts is known to the department.

Four members of staff, 2 male (Professor and Senior Researcher) and 2 female (Senior Researchers) also use flexible working around nursery and/or school drop off/pick up.

The Head of Department has received training in promoting and managing flexible working arrangements. Awareness of the options available is discussed with new members of staff when they arrive and in discussions with their mentors on a regular basis.

(iv) **Culture** – comment on how you demonstrate that the department is female-friendly and inclusive.

The atmosphere within the department is good and probably a result of the size of the department and the diverse group of staff of different nationalities and ages. Although members of staff do not interact much socially outside work due to distance from homes and other commitments, the atmosphere is nevertheless very friendly. For instance, the members of staff who have children share ideas about parenting.

There is no culture of long working hours and members of staff are not normally expected to be available outside normal College working hours but are expected to partake in the social life of the department and College as far as practicable.

A good work-life balance is strongly encouraged and is achieved to a reasonable extent by all members of staff.
Younger members of staff in particular are reminded of its importance by their mentors and the Head of Department. (As Chemical Engineering is not as lab-based as many other SET disciplines, there are perhaps more opportunities for flexible working).

The language used, both formally and informally, is consciously respectful in terms of gender, age, disability, race, sexuality and religion or none.

(v) **Recruitment of staff** – comment on how your recruitment processes ensure that female candidates are attracted to vacancies and how you ensure that recruitment processes comply with the university’s equal opportunities policies.

As noted previously in items 1 viii) and ix), the department has only employed new members of staff approximately every 2-3 years. The recruitment process follows College guidelines.

At least one female member of staff, normally two, will be part of the recruitment panel. (The last recruitment panel was chaired by a female). All members of the panel have received fair recruitment training into which equalities considerations are incorporated.

The advertisements for new posts have a positive action statement according to UCL policy. The applications from candidates are acknowledged by the chair of the recruitment panel.

Candidates are shortlisted based on qualifications and approximately 6-8 candidates are invited for interviews. The shortlisted candidates give a scientific presentation to which all academic staff are invited followed by a formal interview by the panel. The candidates are then given a tour of the department and finally given an opportunity to meet with all staff informally over tea/coffee.

The candidate who will be offered the post is selected based on the job and personal specifications for the post.

(vi) **Representation on decision-making committees** – comment on evidence of gender balance in the mechanism for selecting representatives.

Potential members for a departmental committee are identified based on a review by the Head of Department and the Committee Chair of the current committee membership and possible knowledge gaps, and the skills, interests and development needs of academic staff.

Students are represented on Teaching and Publicity Committees. All members of staff are encouraged to put themselves forward to serve on UCL committees. At present, the female members of academic staff are serving on the following College committees:
- Academic Board (Sorensen, Lettieri)
- Academic Committee (Sorensen)
- Committee for Equal Opportunities (Sorensen)
- Teaching Spaces Executive Sub-Committee (Sorensen)

All members of staff are encouraged to put themselves forward to serve on Professional Committees beyond the College. At present, the female members of academic staff are serving on the following Professional Committees:

- Institution of Chemical Engineers' Subject Groups (Sorensen, Lettieri)
- European Federation of Chemical Engineers' Working Parties (Sorensen, currenty chair of a Working Party, and Lettieri)
- Scientific Conference Committees (Sorensen, Angeli and Lettieri).

(vii) **Workload model** – comment on evidence of transparency and fairness.

Workload allocation aims is to be as fair as possible to all staff bearing in mind their individual contributions over time to UCL Expectations (teaching, research, enabling, knowledge transfer), circumstances, development needs and strengths.

Although not prescriptive, a spreadsheet Work Hours Allocation Model (WHAM) is used to inform management judgements on role and teaching allocation decisions, which normally follow discussions with individuals.

At its inception ca 2004, the model focussed on core teaching and enabling activities (including administrative, committee and research enabling) that must be done for the department to undertake its primary responsibilities. It was recognised that time, rather than course unit value as used hitherto, was the basic currency most important to academic staff.

Since then, the model has become quite complex. Some outreach activities and enabling roles beyond the department are included and others will be added from 2009/10. All activities and weighting factors are visible on the intranet and feedback has been invited.

Given the miriad of activities undertaken by academic staff, the freedom allowed for the individual interpretation of roles and tasks and the absence of a time sheet management culture in the department, the model is only expected to be indicative rather than exact.

Nevertheless it demonstrates that research active staff, including all females, have ample time to pursue their personal research and other professional activities.

The model is updated periodically and a review will be undertaken shortly.
(viii) **Cover for maternity and adoption leave and support on return** – comment on the mechanisms for covering workload absence and specific support on return.

There has been 4 instances of maternity leave within the department during the last decade (Sorensen: 1998 & 1999/2000 and Angeli: 2002 & 2005/6 and both returned after around 4 months maternity leave). Lettieri is currently on maternity leave and is expected to return in November 2009.

Any female member of staff about to go on maternity leave is supported by the Head of Department before going on leave and procedures for how to cover her duties in her absence is discussed and agreed. In particular, she is encouraged not to continue any duties whilst on leave.

Upon return from maternity leave, the returner will be allocated a reduced work load for at least the first term after returning to allow her to focus more on her research.

The department will consider establishing a procedure for mentoring by a female member of staff who has recently been on maternity leave to further support female members of staff returning from maternity leave.

(ix) **Timing of departmental meetings and social gatherings** – evidence of consideration for those with family responsibilities.

Departmental meetings are predominantly scheduled in the early afternoon, between noon and 4pm. If meetings overrun, members of staff doing school runs are excused if necessary.

The time tabling of teaching activities has in the past always taken into account nursery and school drop offs/pick ups, though with the introduction of a new Common Timetable within College, this may no longer be possible.

The department has two annual evening social gatherings; one at Christmas attended by past and present staff and friends of the department within College, another which is attended by past and present students and staff.

(x) **Outreach activities** – comment on the level of participation by female and male staff and whether they get recognition for being involved and the time and work put in.

The department is aware of the College Widening Participation agenda and outreach activities are encouraged and are taken into consideration in appraisal and promotion processes.

Several members of staff are involved in outreach activities through primary and secondary schools as outlined in UCL’s Widening Participation Strategy 2007-2011 (item 23).

Angeli and Sorensen were involved in UCL’s WISE events through the faculty for several years until these stopped. A male member of staff has also been involved in his previous post in a different College.
Sorensen is Chair of Governors at a large primary school and is involved in supporting the science activities within this school through support to teachers and evaluating pupils’ science work through, for instance, a Science Fair. She is also on the School's Curriculum Committee and chair of the Finance and Staffing Committee.

Angeli has been running an Open Day and a University of London Taster Course which aim to provide school children a chance to experience university life and also to introduce them to chemical engineering concepts and career prospects. In addition, she has been organising the activities of the UCL Summer School in the Department for teachers.

Lettieri has been involved (2001-2007) in the organisation of the Engineering programme for the annual BA Festival of Science, working in collaboration with the British Association for the Advancement of Science, the Royal Academy of Engineering and the Learning Grid, and is currently acting as mentor for her replacement on the committee.

(xii) **Support for female students** – comment on the support provided for female students to enable them to make the transition to a sustainable academic career, particularly from postgraduate to researcher.

All students, both able undergraduates and all postgraduates, are encouraged to pursue an academic career in science and engineering.

Strong pastoral support from both female and male members of staff is given to female undergraduate students who are encouraged to apply for postgraduate courses either at UCL or elsewhere. (In 2009, 4 out of 23 final year students have been offered PhD positions at UCL or elsewhere, out of which 2 are female).
Postgraduate students are encouraged to pursue a career in academic science. Seminars are organised on a regular basis to give them an opportunity to practice presenting their work. Regular review meetings take place with their supervisors as well as less frequently with the (male) Departmental Graduate Tutor during which their career plans are discussed.

The support activities are formally recognised by the department through the Work Hours Allocation Model (WHAM).

3. Case study: impacting on individuals

Describe how your department’s SWAN activities have benefitted an individual woman working in the department (maximum 200 words).

Lettieri joined the department in 2001 following the award of a 5-year Royal Academy of Engineering Research Fellowship and she was the first woman engineer to receive this award.

She graduated in Mechanical Engineering in 1994 from the University of Roma “La Sapienza” and obtained a PhD in Chemical Engineering at UCL (this department) in 1999.

Her PhD was a collaboration with BP, and before commencing her academic career at UCL, she spent five years working as a RA and PDRA and researcher at the BP Chemicals Research Centre in Sunbury (1995-2000).

The support received from the department throughout the tenure of her Fellowship was instrumental in realising her long term vision, as well as carefully planning for the short term, enabling her to develop a successful academic career.

The department endorsed the development and management of an effective balance between her research and teaching activities.

The department provided her with priority access to research funding (DTA) and laboratory space and equipment and this enabled her to quickly establish an internationally recognized research group.

In parallel, a gradually increased teaching load allowed her to develop the experience and skills needed as a full academic.

In recognition of her achievements, the department was very supportive towards promotion to Senior Lecturer at the end of the Fellowship (2006) at which point a new post was created for her following direct HoD representations to the Provost in the Departmental Strategy Review, and the subsequent promotion to Reader in Chemical Engineering in 2007.
4. Further SET-specific initiatives

Comment on any particularly innovative programmes not covered above which have been undertaken, noting their effectiveness to date and any plans to introduce new initiatives and/or review present practice (maximum 200 words).

The department strongly supports the Institution for Chemical Engineer's (IChemE) whynotchemeng? campaign including financial contribution (http://www.whynotchemeng.com/Splashpage/), which aims to promote chemical engineering to primary and secondary school children.

Several members of academic staff have been directly involved in, for instance, activities supporting science teachers.

The whynotchemeng? campaign has been extremely successful and the department's increase in the number of undergraduate students is a clear indication of this.

One member of male staff has also been involved in support for the National Academy of Gifted and Talented Youth (NAGTY).

5. The self-assessment process

Describe the Self-Assessment Team members and the action planning process, as well as any consultation processes that were undertaken (maximum 500 words).

The Self-Assessment Team consisted of the following members:

<table>
<thead>
<tr>
<th>Member</th>
<th>Position</th>
<th>Children</th>
<th>Departmental duties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eric Fraga</td>
<td>Professor</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Eva Sorensen</td>
<td>Reader</td>
<td>2</td>
<td>First Year Tutor</td>
</tr>
<tr>
<td>Paola Lettieri</td>
<td>Reader 1*</td>
<td></td>
<td>Postgraduate Research Admissions Tutor</td>
</tr>
<tr>
<td>Tim Elson</td>
<td>Senior Lecturer</td>
<td></td>
<td>Departmental Tutor</td>
</tr>
<tr>
<td>Dan Brett**</td>
<td>Lecturer</td>
<td></td>
<td>Deputy MSc Tutor</td>
</tr>
<tr>
<td>Mithila Manage</td>
<td>UG student</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(*: currently on maternity leave, **new member of staff from 2007)

The SWAN application was mainly compiled by Sorensen based on extensive consultation with the Head of Department, academic staff and groups of students with data provided by UCL Student Records and UCL Human Resources.

An early draft of the application was discussed and re-edited by the team and the Head of Department.
Several undergraduate students were consulted particularly regarding the action plan and their ideas were incorporated.

A final draft was circulated to all academic staff for final consultation before final approval by the Head of Department.

6. **Action plan**

Please attach your action plan which summarises actions identified from the data and commentary above, naming the person responsible and time scale.

7. **Any other comments**

Please comment here on any other elements which you think relevant to the application, e.g. recent mergers between departments (maximum 100 words).

-
University College London Dept of Chemical Engineering
Silver award application - Illustrations

Student data

Numbers refer to corresponding numbers on application form

(ii) Students on Undergraduate (UG) Courses

(ii) Female and male students on UG courses
(iii) Students on Postgraduate Taught (PGT) Courses

Students on Postgraduate Taught (PGT) Courses

![Chart showing the number of students on PGT courses for 2004/05 to 2008/09, with data for females and males separately.]

2004/05: Female 4, Male 14; 2005/06: Female 2, Male 8; 2006/07: Female 6, Male 15; 2007/08: Female 8, Male 9; 2008/09: Female 11, Male 12.

(iii) Students Completing PGT Courses

Proportion Completing Postgraduate Taught (PGT) Courses

![Chart showing the proportion of students completing PGT courses for 2004 to 2009, with data for females and males separately.]

2004/05: Female 80%, Male 60%; 2005/06: Female 100%, Male 85%; 2006/07: Female 100%, Male 75%; 2007/08: Female 67%, Male 83%; 2008/09: Female 80%, Male 85%.

(iv) Students on Postgraduate Research (PGR) Courses

Students on Postgraduate Research (PGR) Courses

![Chart showing the number of students on PGR courses for 2004/05 to 2008/09, with data for females and males separately.]

2004/05: Female 8, Male 23; 2005/06: Female 8, Male 21; 2006/07: Female 7, Male 12; 2007/08: Female 7, Male 11; 2008/09: Female 12, Male 14.
(v) Applications/Offer/Acceptances to UG Courses

Applications/Offer/Acceptances (UG)

<table>
<thead>
<tr>
<th>Year</th>
<th>Applicants - Female</th>
<th>Applicants - Male</th>
<th>Offers - Female</th>
<th>Offers - Male</th>
<th>Firm Acceptances - Female</th>
<th>Firm Acceptances - Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004/05*</td>
<td>146</td>
<td>379</td>
<td>110</td>
<td>279</td>
<td>17</td>
<td>34</td>
</tr>
<tr>
<td>2005/06</td>
<td>202</td>
<td>410</td>
<td>154</td>
<td>310</td>
<td>21</td>
<td>58</td>
</tr>
<tr>
<td>2006/07</td>
<td>200</td>
<td>477</td>
<td>160</td>
<td>391</td>
<td>47</td>
<td>108</td>
</tr>
<tr>
<td>2007/08</td>
<td>204</td>
<td>515</td>
<td>192</td>
<td>469</td>
<td>63</td>
<td>149</td>
</tr>
<tr>
<td>2008/09</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

(v) Applications/Offer/Acceptances to PGT Courses

Applications/Offer/Acceptances (PGT)

<table>
<thead>
<tr>
<th>Year</th>
<th>Applicants - Female</th>
<th>Applicants - Male</th>
<th>Offers - Female</th>
<th>Offers - Male</th>
<th>Firm Acceptances - Female</th>
<th>Firm Acceptances - Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004/05*</td>
<td>42</td>
<td>146</td>
<td>35</td>
<td>95</td>
<td>4</td>
<td>13</td>
</tr>
<tr>
<td>2005/06</td>
<td>44</td>
<td>136</td>
<td>31</td>
<td>102</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>2006/07</td>
<td>42</td>
<td>123</td>
<td>34</td>
<td>88</td>
<td>9</td>
<td>17</td>
</tr>
<tr>
<td>2007/08</td>
<td>42</td>
<td>96</td>
<td>25</td>
<td>66</td>
<td>15</td>
<td>32</td>
</tr>
<tr>
<td>2008/09</td>
<td>35</td>
<td>96</td>
<td>29</td>
<td>58</td>
<td>19</td>
<td>32</td>
</tr>
</tbody>
</table>
(v) Applications/Offer/Acceptances to PGR Courses

<table>
<thead>
<tr>
<th>Year</th>
<th>Applicants - Female</th>
<th>Applicants - Male</th>
<th>Offers - Female</th>
<th>Offers - Male</th>
<th>Firm Acceptances - Female</th>
<th>Firm Acceptances - Male</th>
</tr>
</thead>
<tbody>
<tr>
<td>2004/05*</td>
<td>15</td>
<td>52</td>
<td>9</td>
<td>37</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>2005/06</td>
<td>10</td>
<td>34</td>
<td>4</td>
<td>25</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>2006/07</td>
<td>14</td>
<td>39</td>
<td>6</td>
<td>18</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>2007/08</td>
<td>7</td>
<td>49</td>
<td>5</td>
<td>26</td>
<td>3</td>
<td>7</td>
</tr>
<tr>
<td>2008/09</td>
<td>12</td>
<td>26</td>
<td>9</td>
<td>16</td>
<td>7</td>
<td>10</td>
</tr>
</tbody>
</table>
(vi) Degree Attainment of students on UG Degree Courses

![Degree Attainment on Undergraduate (UG) Courses](image)

(vii) Students on PGR Courses – average time to submission

![Average time to submission (where submitted)](image)
Staff data

Numbers refer to corresponding numbers on application form

(viii) Number of male and female staff (academic and research) at each grade

![Graph showing number of employees by gender and occupation type]

<table>
<thead>
<tr>
<th></th>
<th>Oct'05</th>
<th>Oct'06</th>
<th>Oct'07</th>
<th>Oct'08*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male - Research assistant</td>
<td>3</td>
<td>0</td>
<td>0</td>
<td>2</td>
</tr>
<tr>
<td>Male - Lecturer/researcher</td>
<td>4</td>
<td>3</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>Male - Senior lecturer/researcher</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Female - Senior lecturer/researcher</td>
<td>3</td>
<td>3</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>Male - Professor</td>
<td>7</td>
<td>7</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

![Bar graph showing female employees vs UK HE institutions 2006/7 (%)]

<table>
<thead>
<tr>
<th>Occupation Type</th>
<th>Research assistant</th>
<th>Lecture/researcher</th>
<th>Senior lecturer/researcher</th>
<th>Professor</th>
</tr>
</thead>
<tbody>
<tr>
<td>CE</td>
<td>0.0%</td>
<td>50.0%</td>
<td>0.0%</td>
<td>4.5%</td>
</tr>
<tr>
<td>UK HE*</td>
<td>26.6%</td>
<td>22.7%</td>
<td>16.7%</td>
<td>6.4%</td>
</tr>
</tbody>
</table>
University College London - Department of Chemical Engineering

Gender Action Plan 2009-12

2009 -2012

Long term objectives…

STUDENTS:
L1. To attract more female undergraduate students aiming at least 10% above UK HE average (30% vs 28%, so already above)
L2. To maintain the number of female postgraduate students at least 10 % above UK HE average (46-8% vs 28%, above)

STAFF:
L3. To maintain the supportive and friendly atmosphere in the department
L4. To attract more applications to academic positions from females
L5. To have more female postgraduate research students going into academic positions at UCL or elsewhere

2009-10

Medium-Short term objectives…

M1. To monitor the progression of female students, particularly in relation to ethnicity and culture
M2. To provide information on academic careers earlier in the undergraduate programme
M3. To introduce mentors for women returning from maternity leave to support them for 1 year if required
M4. To ensure full transparency of the Work Hour Allocation Model (WHAM)
M5. To include all relevant aspects of outreach activities and committee roles beyond the department in the WHAM
M6. To include all funded research and knowledge transfer activity in the WHAM
M7. To introduce a formal annual review policy for core committees to ensure a good gender and age balance
M8. To ensure all staff have received fair recruitment training
<table>
<thead>
<tr>
<th>Objective</th>
<th>Target</th>
<th>Action</th>
<th>Time Scale</th>
<th>Success Criteria</th>
<th>Monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>L1 &amp; L2</td>
<td>To ensure a good gender &amp; ethnicity balance in all student publicity material</td>
<td>To review the gender &amp; ethnicity displayed in all student publicity material</td>
<td>July – Dec’09</td>
<td>That the material clearly displays an above average proportion of female and ethnic minority students</td>
<td>Publicity material</td>
</tr>
<tr>
<td>L1</td>
<td>To increase the number of applications to undergraduate courses from female students</td>
<td>To monitor the undergraduate application to offers and to acceptance ratios, To involve more female students in UCAS visits, To closely monitor the progression of female students through personal tutors, To continue to support the IChemE’s whynotchemeng campaign</td>
<td>Continuous</td>
<td>That the number of female undergraduate students is increased to at least 10% above UK HE average level</td>
<td>Monitoring ratios, Monitoring progress</td>
</tr>
<tr>
<td>L2</td>
<td>To maintain the number of female postgraduate students</td>
<td>To monitor the postgraduate application to offers to acceptance ratios, To closely monitor the progression of female students through the MSc and PhD Tutors</td>
<td>Continuous</td>
<td>That the number of female postgraduate students is maintained above 40%</td>
<td>Monitoring ratios, Monitoring progress</td>
</tr>
<tr>
<td>L5 &amp; M2</td>
<td>To have more female postgraduate research students going into academic positions at UCL or elsewhere</td>
<td>To embed material in UG and PG courses early which encourages women to pursue research, To monitor the number of female postgraduate research students who go into academic positions, To encourage academic careers, To offer careers’ advice</td>
<td>Continuous</td>
<td>That more female postgraduate research students go into academic positions at UCL or elsewhere</td>
<td>Monitoring first posts for graduating students</td>
</tr>
<tr>
<td>Objective</td>
<td>Target</td>
<td>Leading*</td>
<td>Action</td>
<td>Time Scale</td>
<td>Success Criteria</td>
</tr>
<tr>
<td>-----------</td>
<td>--------</td>
<td>---------</td>
<td>--------</td>
<td>------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>L1, L2, L5 M1</td>
<td>To better understand the relationship between gender, ethnicity and culture in relation to female students</td>
<td>Departmental Tutor</td>
<td>To monitor the progression of female students, particularly in relation to ethnicity and gender due to a concern that the role of women in some more traditional societies may lead to their being underrepresented in higher education, particularly in science and engineering.</td>
<td>July – Sep.'09</td>
<td>To understand the relationship between gender, ethnicity and culture in relation to female students</td>
</tr>
<tr>
<td>L3 &amp; M3</td>
<td>To support women returning from maternity leave</td>
<td>HoD</td>
<td>To introduce mentors for women returning from maternity leave</td>
<td>July – Sep.'09</td>
<td>That all women returning from maternity leave have a mentor if required</td>
</tr>
<tr>
<td>L3, M4, M5 &amp; M6</td>
<td>To ensure full transparency of the WHAM &amp; inclusion of all relevant factors</td>
<td>HoD</td>
<td>To formalise and agree the weightings used in the WHAM and, to include relevant aspects of outreach activities and committee roles beyond the department</td>
<td>July’09 – July’10</td>
<td>That all members of staff understand the basis and limitations of the WHAM and obtain maximum agreement with the tasks and duties and allocation weightings used</td>
</tr>
<tr>
<td>L3 &amp; M7</td>
<td>To ensure a good distribution of gender and age in departmental committees</td>
<td>HoD &amp; committee chairs</td>
<td>To formalise a policy whereby the membership of all committees are reviewed annually in order to ensure a good balance in terms of gender and in terms of age where possible</td>
<td>July’09 – Dec’09</td>
<td>That all committee memberships are reviewed annually according to the policy and that a good balance is achieved where possible</td>
</tr>
</tbody>
</table>
## UCL Chemical Engineering Athena SWAN Silver application 2009 – Action Plan

<table>
<thead>
<tr>
<th>Objective</th>
<th>Target</th>
<th>Leading*</th>
<th>Action</th>
<th>Time Scale</th>
<th>Success Criteria</th>
<th>Monitoring</th>
</tr>
</thead>
<tbody>
<tr>
<td>L3 &amp; L4</td>
<td>To attract more applications from females to academic positions</td>
<td>HoD</td>
<td>To ensure that females are encouraged to apply through positive statements in advertisements and through contact with the department, and To continue to ensure that females are encouraged to take up a post if offered to them</td>
<td>Next available vacancy</td>
<td>That the proportion of applications from females is increased</td>
<td>Monitoring applications</td>
</tr>
<tr>
<td>L3, L4 &amp; M8</td>
<td>To ensure that all members of staff are aware of fair recruitment policy</td>
<td>HoD and DEOLO</td>
<td>To review which members of staff have received fair recruitment training, To ensure that remaining members of staff also received training</td>
<td>July’09 – Dec’09</td>
<td>That all members of academic staff have received gender equality training</td>
<td>Monitoring uptake of equality training</td>
</tr>
</tbody>
</table>

*: The person leading will depend on departmental position, hence roles are given rather than names as these may change

**Key:**
- DEOLO: Departmental Equal Opportunities Liaison Officer
- HoD: Head of Department
- IChemE: Institution of Chemical Engineers
- WHAM: Work Hour Allocation Model