What are SPELS 1, 2 & 3?

Three 10 SCOTCAT credit modules intended to provide CORE: year long, stand-alone modules to support subject specific modules in Life Sciences at the University of Dundee

SPELS 1 – Year 1 -2008/9
SPELS 2 – Year 2 -2009/10
SPELS 3 – Year 3 -2009/10

Reason for SPELS

1. Depending on the set of generic skills embedded in the modules they had chosen at years 1-3, some life science students were entering the honours (year 4) lacking some basic generic and academic skills.

2. Many capable life science students were graduating with little idea of the graduate job market or how to describe their skills & abilities.

Overall Aims for SPELS 1, 2 and 3?

To enhance graduate attributes & students awareness by enhancing professional development and employability of all life science students while supporting generic skills acquisition for successful completion of an Honours degree and entry to the workplace.

Who are involved in delivery of SPELS?

• Life Science Tutors
• Careers Service Staff
• Learning Centre Staff
• Library staff

Blended learning

• Tutorials
• Workshops
• Self-directed learning
• Computer-aided learning
• Problem-based learning
• PDP
• Work placements

Assessment methods

• QMP
• Data analysis
• Self-peer review
• Oral & poster presentations
• PDP
• Project reports – independent & team-based
• Abstract writing/paper evaluations
• Lab reports & essays revisited

Research on Jobs in the Pharmaceutical Sector

Name at least 5 key Pharmaceutical companies

1. GlaxoSmithKline
2. Eli Lilly
3. AstraZeneca
4. Merck & Co
5. Pfizer

What resources can students use to find out about Careers in the Pharmaceutical Industry?

Could start with Careers Service, University web pages but the main resources are on the internet, using online companies to link on the resources available in those including, such as www.ingest.com, www.jobsite.com, or www.pharmcareers.co.uk (for careers after graduation) or www.unipart.com

List at least 3 evidence roles at this Pharmaceutical industry by:

1. Medicinal, clinical trials director, medical representative, analytical chemist
2. Other potential careers include, marketing, or PDP is required for research
3. Pharmaceutical companies

Transferrable Skills awareness (15% towards SPELS 1 grade)

First year students set up a PDP portfolio and completed the transferrable skills template which contains 27 different descriptions of a variety of generic skills. The following are random examples of transferrable skills diary entries from different students.

<table>
<thead>
<tr>
<th>Description</th>
<th>Competence Level 1-6 (1 is very poor and 6 is excellent)</th>
<th>Examples of Where I Have Done This</th>
</tr>
</thead>
<tbody>
<tr>
<td>I can write in a variety of formats e.g. letters, reports, emails, meeting minutes</td>
<td>3</td>
<td>My time at University has taught me the importance and the skills essential for writing in a number of formats for which I have achieved very good grades e.g. click on this link to one of my essays: Oil Spills.doc</td>
</tr>
<tr>
<td>I can prioritise my work as required</td>
<td>3</td>
<td>In recent years I have held a stable job during both term and exam time and I have achieved good grades and an employment history. I believe I have shown myself to be proficient in juggling tasks and prioritising my work.</td>
</tr>
<tr>
<td>I have participated in voluntary work</td>
<td>4</td>
<td>I taught English in China for several months (click on China.doc) as well as participating in a world record attempt as a cameraman for CH4 Line. In addition to this, I have and continue to be involved in conservation work. (See Child line.jsp)</td>
</tr>
<tr>
<td>I can use spreadsheets to perform calculations using formulas &amp; display data sets</td>
<td>2</td>
<td>I have a basic understanding of spreadsheets as required by scientific calculations and presentations but need to work on these skills.</td>
</tr>
<tr>
<td>I can think critically</td>
<td>3</td>
<td>I tend to approach problems with the mentality of &quot;why couldn't this happen&quot; rather than just accepting scientific fact. I try and understand why the phenomena does not happen as opposed to just simply accepting it does not happen.</td>
</tr>
</tbody>
</table>

Job Sector Research (10 % towards SPELS 2 grade)

In a 2 hour IT workshop, teams of students were provided with sets of questions to investigate a variety of job sectors & were tasked with produce a PowerPoint file to share their findings with their fellow students. The item to the left is an extract from one of these assignments.

From skull to skin – every bone tells a story...

Would your dream job be to wake up on a Monday, measure eyeball protrusion and decide how fat Bach's face would have been? For Dr Caroline Wilkinson this is her reality. As a facial reconstruction expert she specialises in characteristics of the human face her job has taken her from a juvenile reconstruction from the Netherlands, to teaching and research at Dundee University.

Dr. Wilkinson began her studies with an Anatomy and Physiology degree and then combined this with her passion for art by completing a second degree in Medical Art. She then studied for a PhD in Facial Anthropology. In recent years she was asked to join the team at the Centre of Anatomy and human identification at the University of Dundee where her work in facial reconstruction continues.

Group Project (25% towards SPELS 2 grade)

Students investigated who is doing research in their chosen subject area. Each team identified a researcher of interest to the group and produced a set of questions before setting up an interview with the chosen person. The outcome was to produce a person profile in the form of a press release which the team presented at a special poster presentation forum. This task involved team working, written and verbal communication, time management, organisational and networking skills. The following is an extract of one such SPELS 2 poster

Challenges

1. How we can evaluate the effectiveness of the SPELS programme in the current difficult global economic climate.

2. Students stated that they could understand the value for their future of the activities they completed in SPELS but the overwhelming perception, expressed strongly in student feedback, was that the SPELS assignments are less important than their subject specific module assessments and so a waste of valuable time.

3. The success of these modules is due to a lot of dedicated teamwork with a core of academic staff and the associated service staff in careers, library and learning centre. The challenge will be the institution's ability to resource this type of activity across all colleges if the demand arises.