PRIFYSGOL glyndŵr UNIVERSITY

# MODULE SPECIFICATION FORM

| **Module Title:** | **Professional Practice** | **Level**: | 6 | **Credit Value**: | 40 |
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| **Module code**: | SCI622 | New ✓<br>Existing ☐ | **Code of module being replaced**: | NA |
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| **Cost Centre**: | GAFS | **JACS3 code**: | F100 |
|---|---|---|---|

| **Trimester(s) in which to be offered:** | 1, 2 | **With effect from:** | September 16 |
|---|---|---|---|

| **School:** | Applied Science, Computing & Engineering | **Module Leader:** | Clive Buckley |
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|---|---|
| Scheduled learning and teaching hours | 20 hrs |
| Guided independent study | 280 hrs |
| Placement | 100 hrs |
| **Module duration (total hours)** | 400 hrs |

| **Programme(s) in which to be offered** | Core | Option |
|---|---|---|
| BSc (Hons) Chemistry with Education | ✓ | ☐ |

Office use only
Initial approval July 2016
APSC approval of modification July 2016 Version 1.
Have any derogations received SQC approval? Yes ☐ No ✓

| **Module Aims** |
|---|
| To help the student gain confidence in communicating chemistry and related subjects and develop strong communication, organisational, team working and interpersonal skills.<br>To support the student in developing knowledge and skills to help individual learners and devise teaching approaches appropriate to the age group(s) with which the student is placed.<br>To provide an opportunity for students to undertake a small-scale research project relating to issues involving learning and teaching. |

**Intended Learning Outcomes**

On completion of this module students will have:

1. Gained considerable experience of working in a teaching and learning setting.
2. Gained a broad understanding of the key aspects of teaching science in schools or similar educational settings.
3. Developed confidence in explaining complex ideas in science in a potentially demanding setting.
4. The knowledge and skills to critically apply a range of research skills and ethical protocols to collect data relating to an issue relevant to learning and teaching.
5. The knowledge and skills to critically interpret and evaluate data, comparing and contrasting competing explanations and theories to develop informed judgements about the relationship between theory, policy and practice.
6. The ability to summarise and disseminate the main findings that have emerged from the research study and the implications of these in/for practice.

Key skills for employability

| | |
|---|---|
| KS1 | Written, oral and media communication skills |
| KS2 | Leadership, team working and networking skills |
| KS3 | Opportunity, creativity and problem solving skills |
| KS4 | Information technology skills and digital literacy |
| KS5 | Information management skills |
| KS6 | Research skills |
| KS7 | Intercultural and sustainability skills |
| KS8 | Career management skills |
| KS9 | Learning to learn (managing personal and professional development, self-management) |
| KS10 | Numeracy |

| At the end of this module, students will be able to | | Key Skills | |
|---|---|---|---|
| 1 | Considerable experience of working in a teaching and learning setting. | KS1 | KS2 |
| | | KS3 | KS4 |
| | | KS6 | KS7 |
| 2 | Gained a broad understanding of the key aspects of teaching science in schools or similar educational settings. | KS3 | KS4 |
| | | KS5 | KS6 |
| | | KS7 | KS9 |

| | | | |
|---|---|---|---|
| 3 | Developed confidence in explaining complex ideas in science in a potential demanding setting. | KS1 | KS2 |
| | | KS3 | KS5 |
| | | KS8 | KS10 |
| 4 | The knowledge and skills to critically apply a range of research skills and ethical protocols to collect data relating to an issue relevant to learning and teaching. | KS3 | KS4 |
| | | KS5 | KS6 |
| | | KS8 | KS9 |
| 5 | The knowledge and skills to critically interpret and evaluate data, comparing and contrasting competing explanations and theories to develop informed judgements about the relationship between theory, policy and practice. | KS1 | KS3 |
| | | KS4 | KS5 |
| | | KS6 | KS10 |
| 6 | The ability to summarise and disseminate the main findings that have emerged from the research study and the implications of these in/for practice. | KS1 | KS3 |
| | | KS4 | KS5 |
| | | KS8 | KS10 |

Transferable/key skills and other attributes

- Critical thinking, reasoning and argument skills
- Problem-solving skills
- Presentation skills
- Analysis, critical reflection and evaluation
- Communication
- Working with others

| **Derogations** |
|---|
| None |

**Assessment:** Please give details of indicative assessment tasks below.

1. Written journal article which critiques a topic, theme or issue related to teaching and learning. The primary data gathered for this task will normally come from placement.
2. Poster presentation outlining key learning/findings from the research process.

Please indicate the type(s) of assessment (eg examination, oral, coursework, project) and the weighting of each (%). Normally, each intended learning outcome should be assessed only once.

| Assessment number | Learning Outcomes to be met | Type of assessment | Weighting (%) | Duration (if exam) | Word count (or equivalent if appropriate) |
|---|---|---|---|---|---|
| 1 | 1 - 5 | Report | 80% | | 5,000 |
| 2 | 6 | Poster Presentation | 20% | | 1,000 |

**Learning and Teaching Strategies:**

The following is based on a placement setting in a school, where the placement is in an alternative setting, such as an interactive science centre or other learning centre, similar strategies will be employed. For example a member of centre staff would act as mentor.

Lead-in lectures, tutorials and workshops will provide an introduction to working with children and young people and the level of teaching with which they will be involved during their placement. Students will be introduced to relevant elements of the National Science Curriculum and its associated terminology, Students will visit their placement setting prior to placement and be introduced to their teacher mentor.

Placement will take place after the induction period and will consist of one day per week through the academic year.

On placement the teacher/mentor will offer guidance to the student and will determine the level of responsibility to be expected.

Initially the student will work be as a classroom assistant, observing the teaching and classroom dynamics. They will gain knowledge of the level of chemistry/science taught and the structure of the lesson, and offer practical support to the teacher in laboratory or administrative work. With further experience the student will be expected to lead classroom teaching, developing appropriate classroom resources. The placement may require the student to participate in extra-curricular duties such as parent's evenings and sports clubs, this will be usually take place outside the normal school day.

**Syllabus outline:**

There is no formal syllabus but students will be given an introduction to teaching and the national curriculum as described above.
Whilst on placement students will receive direction and advice from their classroom mentor.

**Bibliography:**

**Essential reading**

National curriculum documentation
School policies and procedures
LEA documentation

**Other indicative reading**

Cohen, L., Manion, L. and Morrison, K. (2011) *Research Methods in Education* 7th Edition, Routledge

Marder, M.P. (2011) *Research Methods for Science.* Cambridge: Cambridge University Press.

Bell, J., Waters S. (2014), *Doing Your Research Project: A Guide for First-time Researchers* Milton Keynes: Open University Press.

Gibbs, G. R. *Research Methods in Social Science* YouTube Channel Online https://www.youtube.com/user/GrahamRGibbs Accessed 08 February 2016

Open University (2014) “Engaging with Educational Research” (e-book) [Creative Commons]

Online http://www.open.edu/openlearn/education/educational-technology-and-practice/educational-practice/engaging-educational-research/content-section-0 Accessed 08 February 2016