Cardiff University
School of Computer Science & Informatics
Handbook: MSc Programmes with placement

Programmes with Placement:
MSc Computing
MSc Information Security & Privacy
MSc Computing & IT Management
MSc Computer Science
Contents

HANDBOOK: MSC PROGRAMMES WITH PLACEMENT 1

1. Introduction 3
   1.1 Finding a Placement 3
   1.2 Eligibility 4

2. Responsibilities 5
   2.1 The Student 5
   2.2 Placement Consultants 6
   2.3 Module Leader 7

3. Placement Timetable 8

4. Assessment 9
   4.1 Learning Outcomes 9
   4.2 Assessment whilst on placement 9
   4.3 Initial Report (formative assessment) 10
   4.4 Interim Report - (Formative Assessment) 11
   4.4 Final Appraisal 12
   4.5 In-School Assessment 13
   4.6 Presentation – (Formative Assessment) 13
   4.7 Final Reflective Report - (Summative Assessment) 14

APPENDIX 1: GLOSSARY 15
   A1.1 Assessment Panel 15
   A1.2 Module Leader 15
   A1.3 Placement Consultant 15
   A1.4 Placement Mentor 15
   A1.5 Placement Provider 15
   A1.6 Student Professional Placement (SPP) Tutor 15

APPENDIX 2: 16
   A2.1 Skills Framework for the Information Age. 16
   A2.2 How SFIA works 16
   A2.3 Generic skills and levels of responsibility 16
   A2.4 Professional IT Skills / categories of work 17
   A2.5 Generic Skills 17
   A2.6 Using the SFIA Framework on your Placement 18

Acknowledgement

This handbook is based on the Cardiff School of Physics & Astronomy placement handbook.
1. Introduction

The aim of the Placement is to provide students with an opportunity to gain valuable work experience as part of their Master’s programme. The placement will normally last between 7 and 10 months and will take place between the taught phase and the dissertation phase of the programme.

Students will work with the Placement Provider (which may be a company, charity or institution) and the School to identify suitable professional and personal development objectives for the placement. It is expected that students on placements will be paid by the company for the duration of the placement.

Students will be assessed on their reflection on the placement experience through a reflective report which will be written after successfully completing the placement.

Undertaking the Placement will enable students to plan, review, record and evaluate their progress against agreed objectives. Core to the placement will be the ability to demonstrate competency to Level 4 in one or more of the Professional Skills from the Skills Framework for the Information Age (SFIA). Students will be required to reflect on how they have developed their employability skills and discuss how these will contribute to their on-going professional development. This will be accompanied by identifying how their experience on placement relates to the programme of study by reflecting on the linkage between theory and practice. During the Placement students will engage in Continuing Professional and Personal Development activities.

The placement provides a strong platform for post-MSc future personal development planning to enable students to continue to develop their skills to Level 5 in the SFIA framework, which is required for Chartered IT Professional Status under the BCS – The Chartered Institute for IT (http://www.bcs.org/category/10976).

1.1 Finding a Placement

You are responsible for finding your own placement, but the School is using placement consultants, Symmons Madge Associates Ltd, to inform students of suitable placement opportunities. The School does not guarantee that a placement can be found for all students. We therefore strongly encourage you to look for placement opportunities yourself, as well as responding to the opportunities that will be presented via the placement consultants. Many companies only consider students for their placements through on-line recruitment via their web-pages.

A series of workshops and talks will be provided by our placement consultants in the Autumn Semester to give you advice on finding and applying for a placement and on developing skills to help you how get the most from your placement opportunity.

You need to update your CV and send it to Symmons Madge at the start of the Autumn Semester. Once your CV has been approved you will be sent opportunities for placements that you can apply to if you are interested.

The University's Careers and Employability service also offers good advice on finding work placements. A good place to start is the Career Central resource provided by through the Careers and Employability web pages. This has a Work Experience

---

1 Terms within this document e.g. placement provider, module leader, assessment panel are defined in Appendix 1 – Glossary.
2 SFIA - http://www.sfia.org.uk/
section that includes a list of work experience web-sites that can be a useful starting point in finding your placement. The Career Central website can be found at:

https://careercentral.cardiff.ac.uk

The School will ensure that the placement conforms to the University’s Code of Practice on Study Away from the University.

1.2 Eligibility

It is expected that students who have not secured a placement by the end of the Spring Semester examination period will transfer to the one year version of their programme and begin their dissertations immediately following the successful completion of the taught phase.

Students are not normally expected to start their placement until after they have successfully completed the taught phase. Students will normally be expected to return to the School on the Monday following the appropriate Normal Finish Date given below. They will have three weeks to complete their Final Reflective Report. Students will also do a presentation during that three week period. Further information about the assessment is given in Section 4.

The School appreciates that the placement provider and the student may wish to extend the placement period beyond the Normal Finish Date. This needs to be agreed with the Module Leader. The Module Leader will need to be assured that the student will be able to complete their reflective report whilst working and submit it by the appropriate date given below and that the placement provider will allow the student to attend the presentation. Students must complete the placement and return to the School for the start of the Dissertation phase.

<table>
<thead>
<tr>
<th></th>
<th>Taught Phase Completed:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Earliest Start Date:</td>
<td>30/06/14</td>
</tr>
<tr>
<td>Normal Finish Date</td>
<td>08/05/15</td>
</tr>
<tr>
<td>Reflective Report Due</td>
<td>01/06/15</td>
</tr>
<tr>
<td>Results considered in Exam Board</td>
<td>Jun 2015</td>
</tr>
<tr>
<td>Dissertation Starts</td>
<td>03/07/15</td>
</tr>
</tbody>
</table>
2. Responsibilities

2.1 The Student

The Student's first duty is to the Placement Provider. Students should also be aware that they are representing Cardiff University and the School of Computer Science & Informatics.

Students should:

• Ensure that they understand and act within the Placement Provider’s rules and regulations in all areas, and specifically with respect to confidentiality, responsibilities, inter-personal relationships, and Health and Safety.
• Work in a team and/or as an individual as directed towards agreed goals and in a timely manner.
• Be involved in defining and/or negotiating the path through the Placement.
• Apply their academic knowledge to the tasks they are working on and show initiative.
• Realise that there may be some times when the Placement Provider will wish them to do work not directly related to the main task/s.
• Record their work appropriately, and submit reports by the specified deadlines.
• Be frank about any shortcomings in their work, and think about the accuracy, reliability, and significance of the outcomes.
• Ensure that they understand the role of their Placement Mentor (defined herein).
• Ensure that they understand the role of their Student Professional Placement (SPP) Tutor.
• Ask to have information clarified and/or re-confirmed if they are not sure.
• Define boundaries and responsibilities with their Placement Mentor.
• Conform to normal Placement Provider hours of attendance.
• Be aware of their responsibilities to the Programme and the University, including the timely return of reports.
• Be aware of their rights to a safe workplace environment.
• Be aware of local safety regulations and the University’s guidelines in the Code of Practice for Study Away from Cardiff University which can be found at: http://learning.cf.ac.uk/curriculum-design/code-of-practice-on-placement-learning/
• Be aware of their rights to be treated in accordance with applicable legislation for the workplace.
• Maintain contact with the University throughout the placement period
• Inform your SPP Tutor and your Placement Mentor of any issues that arise in the course of the placement. If these are likely to affect your progress on the placement then you should also inform the Module Leader.
2.2 Placement Consultants

The School is working with Placement Consultants at Symmons Madge Associates Ltd (http://www.symmonsmadge.co.uk) to deliver the workshop programme and support the operation and assessment of our undergraduate and postgraduate placement modules.

The Placement Consultants for the Placement are responsible for ensuring placements that they find, are suitable for the purposes of the Programme and allow the students to satisfy the required learning outcomes. This may be achieved through visits or telephone communication with the Placement Provider. The Placement Consultant(s) or deputy will (along with the nominees from the School) assess all the reflective self-assessments and investigate and document any concerns that arise.

The Placement Consultants will check that each Placement Provider has provided the student with a Placement Mentor who will maintain effective mentoring and supervision. The Placement Mentor will also provide reports on the student’s progress for each of the two visits and at the end of the placement.

The Placement Consultants will appoint an SPP Tutor for each student. The SPP Tutor will check the student’s progress and liaise with their employer, on two occasions during the placement period. The SPP Tutor will also be involved with the assessment final reflective report and will provide feedback on the other reports and on the presentation.

In addition, the Placement Consultant(s) will:

- At the beginning of the Autumn Semester provide a presentation explaining the Placement Programme and the advantages gained from choosing it.
- Deliver a series of weekly tutorials during the Autumn Semester covering the essentials for acquiring a placement, i.e. CV writing, interview skills, team role identification etc.
- Provide 1-hour drop in sessions for students to discuss any issues or concerns.
- Deliver up to two separate Health & Safety lectures. Note: Attendance at one of the H&S lectures is compulsory.
- Review, comment on and where appropriate correct student’s CVs.
- Contact and liaise with prospective employers.
- Email/phone/communicate placement opportunities to students and responding to student email/phone calls etc.
- Provide prospective employers with suitable CVs or where applicable direct students to online application processes.
- When appropriate/necessary arrange interviews.
- Contact employers to obtain the result of interviews and when possible obtain detailed feedback.
- Manage the subsequent selection/appointment process.
- Make arrangements for undertaking visits to the students and liaise with their employer, once after approximately 2 months of employment and again approximately half way through the placement period.
• Raise any concerns with the employer or student as appropriate.
• As appropriate maintain contact with students during their placement.
• On return of the students to University (having completed their Placement) attend and comment on their presentations.

2.3 Module Leader
The Module leader will oversee the module and ensure that close ties are maintained with the Placement provider to ensure smooth running of each placement.

Module leader should:

• Ensure that the Placement module provides a programme of learning that will enable students to develop and document their professional skills and knowledge
• Set the coursework and feedback forms for all formative and summative assessments on the placement.
• Ensure that students are provided with details of each assessment and appropriate feedback forms.
• Work with the student, SPP Tutor and Placement Mentor to try to resolve concerns raised by the student or employer.
• Ensure that an appropriate Academic member of staff provides feedback for the initial report, interim report and presentation.
• Ensure that an appropriate Academic member of staff is involved in marking the final reflective report for each student.
## 3. Placement Timetable

<table>
<thead>
<tr>
<th>Event</th>
<th>Autumn Year 1</th>
<th>Spring Year 1</th>
<th>Summer Year 1</th>
<th>Autumn Placement Year</th>
<th>Spring Placement Year</th>
<th>Dissertation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Placement Workshops &amp; Talks</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Drop in Sessions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Transfer if placement not found</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Start placement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Submit initial report</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Submit Interim Report</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Finish Placement</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Submit Final Reflective Report</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Start Dissertation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**

1. Students who have not obtained a placement by the end of the Spring Exam Period should start work on their dissertation. They will be required to transfer to the one year version of their programme after the June Exam Board.
2. The placement can start anytime after students have successfully completed the taught part of the programme as long as the student has an agreed start date by the June Exam Board (see section 1.2).
3. The draft of the initial report is due 1 week before the first visit and the final version is due 2 weeks after the second visit (see Section 4).
4. The draft of the interim report is due 1 week before the first visit and the final version is due 2 weeks after the second visit (see Section 4).
5. The placement will normally finish at the start of May (or start of July for students starting their dissertation in September).
6. The presentation is normally done about 2 weeks before submission of the final reflective report (see Section 4).
7. The final reflective report needs to be submitted towards the end of May (or end of July for students starting their dissertation in September) (see section 4).
4. **Assessment**

4.1 **Learning Outcomes**

The Learning Outcomes for this module are:

*On Completion of this module a Student will be able to:*

- Plan, review, record and evaluate their progress against agreed objectives.
- Demonstrate competency to Level 4 in one or more of the Professional Skills from the SFIA framework.
- Reflect on how they have developed their employability skills and discuss how these will contribute to their on-going professional development.
- Discuss how their experience on placement relates to the programme of study by reflecting on the linkage between theory and practice.

4.2 **Assessment whilst on placement**

Formative assessment will be through two reports submitted during the placement, and a final appraisal based on reports provided by the Placement Mentor. It is also strongly recommended that students keep a reflective log of their experience throughout the placement. This will not be submitted but will provide a useful source of information to draw on for report writing as well as for discussion at meetings with the Placement Mentor and SPP Tutor.

Regular meetings should take place between the student and the Placement Mentor to provide guidance and monitor progress.

An SPP Tutor will normally make two visits to the student’s workplace, coinciding with the submission of the two reports. The first visit will be about two months into the placement. The second visit will be about half way through the placement. There will be an opportunity for the SPP Tutor to provide feedback on the reports. The Placement Mentor and SPP Tutor will also provide feedback and discussion on the student’s progress. The visits will also fulfill a pastoral role, and help to resolve any difficulties that may have arisen.

The formative assessments take place in three stages:

i. **Initial report** (due two weeks after the first visit) - assessed jointly by the Module Leader and your SPP Tutor.

ii. **Interim report** (due two weeks after the second visit) – assessed jointly, by a member of Academic staff and your SPP Tutor.

iii. **Final Appraisal** (at the end of the placement) – assessed using feedback forms provided by the Placement Mentor.

The student will be required to successfully complete each stage before he/she proceeds to the next stage, with an opportunity to resubmit stage 1 or stage 2 within a short time frame following a failure. The student must complete all three stages to complete the placement.

Your assessments should not contain confidential or sensitive information so please make sure you check with your Placement Mentor to what extent you are able to include project information and work deliverables in your assessments.
4.3 Initial Report (formative assessment)

The main aim of the first visit is to assess that you have appropriate objectives to give you the opportunity of meeting the Learning Outcomes for the module. The first visit will take place approximately 2 months into your placement. You will need to submit a draft of your initial report to the Assessment Section of the CMT305 module on Learning Central one week before the first visit. Your SPP tutor will provide formative feedback during the visit so you can improve your report. You will then need to submit the final version two weeks after the second visit.

The Module Leader and your SPP Tutor will check that the objectives that you will provide in your Initial Report are suitable for meeting the Learning Outcomes for the module. They will also provide formative feedback on your report.

You should also ask your Placement Mentor to fill in the M2 and M3 assessment forms so they can give an initial appraisal of your skills. You should fill out the M4 form. These forms should also be submitted to the Assessment Section of the CMT305 module on Learning Central one week before the first visit.

The initial report will need to address the following:

i) Placement Overview

You should provide an overview of your placement organisation, the sections/departments/teams you have worked for and your roles, duties and responsibilities whilst on placement.

ii) Setting Objectives

You should provide objectives that will help you achieve the main learning outcomes for this module. These objectives should relate the following criteria:

   a) Demonstration of competency of IT Professional Skills at Level 4

      Choose one or two IT Professional Skills from the SFIA framework that you feel you are most likely to be able to demonstrate competency at level 4 by the end of placement. Set objectives relating to your role on placement that will enable you to demonstrate competency at level 4 in your chosen IT professional skills (see Appendix 2 for further information).

   b) On-going professional development related to business and employability skills.

      Use the Generic Skills in the SFIA framework (autonomy, influence, complexity and business skills) to provide objectives that will show that you have developed these skills whilst on placement (see Appendix 2 for further information).

   c) Relating experience on placement to your programme of study

      Set objectives that will allow you to reflect on the linkage between theory and practice and show how the activities of the teams or groups you have worked with have been influenced by research, standards and best practice
It helps if make your objectives SMART:
• **Specific** – you should provide an outcome/ achievement that is clear and well-defined.
• **Measurable** – state how you will measure progress against the objective
• **Achievable** – ensure you have the skills and can obtain the resources needed to meet the objective
• **Relevant** - is the objective relevant to your company and/or yourself
• **Time bound** – set a deadline or clear timescale for achieving the objective

The guideline for the length of the initial report is about 1,000 words.

During the visit you will meet with the SPP tutor and your Placement Mentor in order to review your initial report and discuss the Placement Mentor’s feedback on the M2 and M3 forms. If necessary, the objectives in your initial report may be updated or expanded as a result of this review and you can include these in the final version of your Interim Report when you submit it to Learning Central.

**4.4 Interim Report - (Formative Assessment)**

The second visit is approximately half way through your placement. You should upload a *draft* of your interim report to the Assessment Section of the CMT305 module on Learning Central *a week before* your visit. Your SPP tutor will provide formative feedback during the visit so you can improve your report. You will then need to submit the final version *two weeks after* the second visit.

You should also ask your Placement Mentor to fill in the M2 and M3 assessment forms so they can give an update on how you are progressing. These forms should be submitted to the Assessment Section of the CMT305 module on Learning Central *one week before* the second visit.

The interim report should include the following:

i) **Critical Review of Progress**

   a. **Demonstration of competency of IT Professional Skills at Level 4**

   Provide a critical evaluation of the progress you have made against the objectives set to demonstrate your competency in your chosen IT Professional Skills and assess your current level for each skill. Include *two* interesting reflective examples to provide evidence of your progress.
   
   **Note:** If you have progressed in several Professional IT Skills then limit your discussion to 2 or 3 Professional IT Skills that best demonstrate your competency at level 4.

   b. **On-going professional development related to business and employability skills.**

   Provide a critical evaluation of the progress you have made against the objectives set to demonstrate your progress in the SFIA Generic Skills and assess your current level for each skill (autonomy, influence, complexity and business skills). Include *two* interesting reflective examples to provide evidence of your progress.
c. *Relating experience on placement to your programme of study*

Provide a critical evaluation of the progress you have made against the objectives set to relate your experience on placement to your programme of study. Include one interesting reflective example to provide evidence of your progress.

**ii) Setting Objectives**

Set detailed objectives for the remainder of the placement for the three areas you have discussed above.

The guideline for the length of the interim report is about 2,500 words.

The main aim of the second visit is to assess how you are progressing on placement and to determine that you are on track for meeting the Learning Outcomes for the module. The Placement Provider and the School both need to be satisfied that you are making sufficient progress to successfully complete the placement. You will meet with the SPP tutor and your Placement Mentor in order to review and discuss your progress. This will take into account the progress reported and objectives set in your draft Interim Report and your Placement Mentor’s feedback on the M2 and M3 forms.

If your SPP Tutor and your Placement Mentor decide that you are not making sufficient progress to successfully complete the placement then normally a further assessment will be arranged.

This will involve:

- Agreeing a timeframe for you to show sufficient improvement (normally between 1-2 months);
- Agreeing clear objectives that you need to meet during this timeframe to show improvement in your performance;
- You submitting a further progress report at the end of this timeframe that critically evaluates your progress against these objectives. This should be sent to your SPP Tutor, your Placement Mentor and the Module Leader;
- The SPPY Tutor, Placement Mentor and Module Leader will formally review your progress within this timeframe. If you fail to satisfy them that you have made sufficient improvement then normally you will be required to leave the placement.

4.4 **Final Appraisal**

Your Placement Mentor should fill in forms M2, M3 and M5 to verify that the student has completed the work placement to the satisfaction of the Placement Provider. The forms should be submitted to the Assessment Section of the CMT305 module on Learning Central by the appropriate Normal Finish Date given in Section 1.2.
4.5 In-School Assessment

Students, who successfully complete a placement to the satisfaction of the Placement Provider and the School, will then be required to prepare a presentation and produce a final reflective report according to the appropriate dates given in Section 1.2.

Students are usually expected to return to the School immediately after the Normal Finish Date and will have three weeks to complete their final reflective report. Students will also give a presentation during this period to receive formative feedback that will help them with their report.

Students may be allowed to extend the placement period beyond the Normal Finish Date with the permission of the Module Leader as discussed in Section 1.2.

4.6 Presentation – (Formative Assessment)

Students will give a presentation lasting no more than 15 minutes to members of staff from the School, other MSc students and staff from the Placement Providers who wish to attend.

The presentation should address the following:

i. Placement Overview (ideally up to 3 minutes)

   Students should provide a concise overview of their placement organisation. They should also outline their main roles and responsibilities during the placement.

ii. Professional IT Skills (ideally up to 6 minutes)

   Students should provide three appropriate examples of their work whilst on placement that clearly demonstrate how they have met Level 4 (or above) in one or more of the Professional IT Skills from the SFIA framework (see Appendix 2).

iii. SFIA Generic Skills (ideally up to 4 minutes)

   Students should provide two appropriate examples of their work whilst on placement that clearly demonstrate how they have developed their SFIA Generic Skills

   Feedback will be provided by members of the Assessment Panel, but all members of the audience will be encouraged to provide constructive comments.

---

3 Made up of Module Team, Placement Consultants and University Representative if different from above.
4.7 Final Reflective Report - (Summative Assessment)

The report contributes 100% to the overall mark for the placement module.

You will be provided with a coursework specification and marking criteria for this assessment in the Assessment Section of the CMT305 module on Learning Central.

Your Final Reflective Report should be uploaded to the Assessment Section of the CMT305 module on Learning Central by the appropriate submission date given on the coursework specification.

A summary of the requirements for the report follows:

i) Placement Overview

You should provide an overview of your placement organisation and discuss how the activities of the teams or groups you worked with have contributed to the business objectives of the organisation. You should also outline your roles and responsibilities whilst on placement.

ii) Development of Professional IT Skills

You should provide a range of reflective examples of the work whilst on placement that clearly demonstrates how you have met Level 4 (or above) in one or more relevant Professional IT Skills from the SFIA framework. You should also discuss how your IT professional skills will contribute to your on-going professional development.

iii) Development of Personal and Employability Skills

You should provide a range of reflective examples to show how you have developed your generic skills (Autonomy, Complexity, Influence and Business Skills) whilst on placement and demonstrate the level they have reached in each of these skills. You should also discuss how these skills will contribute to your on-going professional development.

iv) Relating Theory to Practice

You should provide a range of relevant examples that critically evaluate how your experience gained on placement compares and contrasts to relevant theories studied on your degree programme. You should also discuss how the activities of the teams or groups you have worked with have been influenced by research, standards and best practice.

v) Evaluation of Performance

You should critically evaluate your performance on the placement as a whole and summarize your main achievements and lessons learned from undertaking the placement. You should undertake a full self-appraisal and identify your main weaknesses as well as your strengths. You should reflect on the feedback given by your Placement Mentor/s as part of this evaluation.

The guidance for the size of the report is 6,000 words. The report will be marked by your SPP Tutor and a member of Academic Staff.
Appendix 1: Glossary

A1.1 Assessment Panel
The panel comprising any of: Module Leader, SPP Tutors or other Academic staff is charged with assessing and providing feedback on the student’s presentation and reflective report.

A1.2 Module Leader
The member of academic staff responsible for the placement element of the postgraduate taught schemes which operate “with placement” option. They are responsible for the smooth running and periodic review of the placement element of the programmes. They are responsible for producing the assessment of the modules and will ensure that a suitable member of Academic Staff is involved in providing feedback for the assessments.

A1.3 Placement Consultant
The School is working in conjunction with a Placement consultant, which is an independent company, contracted to provide services to the School to assist with elements associated with Placements. The Placement consultant for the Placement is responsible for ensuring placements that they find, are suitable for the purposes of the Programme and allow the students to satisfy the required learning outcomes. This may be achieved through visits or telephone communication with the Placement Provider. The Placement Consultant or deputy will (along with the nominees from the School) assess all the reflective self-assessments and investigate and document any concerns that arise.

A1.4 Placement Mentor
The person charged by the Placement Provider with providing help and support for the student whilst on placement. The Placement Mentor will normally be the student’s line manager whilst on placement. The Placement Mentor will normally be the person that assesses the student’s progress whilst on placement and produces reports that inform the final appraisal upon completion of the placement.

A1.5 Placement Provider
The ‘employer’ that will provide the placement. This may be a company, charity or any other suitable organization.

A1.6 Student Professional Placement (SPP) Tutor
Any member of Academic Staff, representatives from the Placement Consultants or any other person the School authorizes may act as the SPP Tutor. A SPP Tutor will normally make two visits to the student’s workplace, coinciding with the submission of the initial and interim reports. The reports will be assessed jointly by the SPP Tutor and a member of Academic Staff. Feedback and discussion between the student, Placement Mentor and SPP Tutor will take place during the two visits. The visits will also fulfill a pastoral role, and help to resolve any difficulties that may have arisen.
Appendix 2:

A2.1 Skills Framework for the Information Age.

The criteria used to assess the learning outcomes of this work placement will be derived from the Skills Framework for the Information Age (SFIA).

The creators of the Skills Framework for the Information Age were determined that SFIA would be a useful tool for managers and professionals working in information technology around the world.

In order to achieve that, the design goals were:

- Emphasis on skills, not technologies or products
- A practical tool that fits into any scheme of management
- Reflects informed thinking in the IT industry

These were achieved so successfully that SFIA has become the IT world’s favourite skills framework.

In May 2003, the SFTA Foundation was established by BCS, e-skills UK, IMIS and the IET to own, promote and maintain SFIA.

SFIA

- is the UK government backed IT skills standard providing a common reference model of roles that exist in IT and the skills needed to perform them
- has gained industry-wide recognition including acknowledgement from the following bodies: e-skills, BCS, IET, IMIS, Intellect, OGC, itSMF and the DTI.
- allows employers to measure the skills they have against the skills they need and identify skill gaps

A2.2 How SFIA works

It is constructed as a two-dimensional matrix, describing levels of responsibility (generic skills) on one axis and categories of work (professional skills) on another.

A2.3 Generic skills and levels of responsibility

There are seven levels of responsibility; each has a full definition expressed in terms of Autonomy, influence and Business skills.
• Level 1 Follow
• Level 2 Assist
• Level 3 Apply
• Level 4 Enable
• Level 5 Ensure / advise
• Level 6 Initiate / influence
• Level 7 Set strategy / inspire / mobilise

The levels cover the range from starter to senior IT manager and world-leading technologist. The nature of these generic definitions makes them suitable for use as the basis of core competencies.

A2.4 Professional IT Skills / categories of work

The skills definitions are diagnostic, not prescriptive; they contain enough information to enable a judgement as to whether someone has the skill, and at what level. They do not attempt to list all the things that the skilled individual might be able to do. The definitions provide precise statements of the various levels of skill required.

There are six main categories of work/professional skills:

1. Strategy and architecture
2. Business change
3. Solution development and implementation
4. Service Management
5. Procurement and management support
6. Client Interface

A2.5 Generic Skills

SFIA’s generic levels provide a background against which the specific professional skills can be judged. Each skill has a name, a code and an overall description; there is also a specific interpretation of the skill at each of the levels at which it is recognised. An example of the layout of a skill (Programming/Software development PROG) is shown here:

Programming/software development PROG

The design, creation, testing and documenting of new and amended programs from supplied specifications in accordance with agreed standards.

Level 4 Designs, codes, tests, corrects and documents large and/or complex programs and program modifications from supplied specifications using agreed standards and tools, to achieve a well-engineered result. Takes part in reviews of own work and leads reviews of colleagues' work.
A2.6 Using the SFIA Framework on your Placement

Identifying Potential Professional IT Skills for your Role

One of the main learning outcomes for the CMT305 Placement module is to demonstrate competency to Level 4 in one or more of the Professional Skills from the SFIA framework.

As soon as you are informed of your role and main responsibilities then you should identify one or more Professional IT Skills from the SFIA Framework Reference that you think are most relevant for demonstrating your competency. There are nearly 100 different IT Professional Skills defined in the framework.

Example

Dafydd has obtained a placement as a Database Developer in a local software development company. He has been told that he will be allocated to a project team and will be involved in the design, implementation and testing of a database that will form part of a new information system for a client. Daffyd identifies potential Professional IT Skills from the list in the Framework Summary and finds the skills in the SFIA Framework Reference.

<table>
<thead>
<tr>
<th>Subcategory</th>
<th>Skill</th>
<th>Code</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Systems development</td>
<td>Systems development management</td>
<td>ELMG</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Data analysis</td>
<td>DITN</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Systems design</td>
<td>DESN</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Network design</td>
<td>NITD</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
<td>6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Database/repository design</td>
<td>DBRS</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Programming/software development</td>
<td>PROG</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Animation development</td>
<td>ADEV</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Safety engineering</td>
<td>SDEN</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Sustainability engineering</td>
<td>SUEN</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Information content authoring</td>
<td>ICRA</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Testing</td>
<td>TEST</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
</tr>
<tr>
<td>Human factors</td>
<td>User experience analysis</td>
<td>UANA</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Ergonomic design</td>
<td>ERGN</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>User experience evaluation</td>
<td>USEV</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Human factors integration</td>
<td>HRFN</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Installation and integration</td>
<td>Systems integration</td>
<td>SINT</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Porting/software integration</td>
<td>PORT</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td>6</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Systems installation/decommissioning</td>
<td>HSIN</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Dafydd identifies the following Professional IT Skills that seem to be relevant to his role and responsibilities:

- Data Management covering skills 4-6 from the Strategy and Architecture Section
- Data Analysis covering skills 2-5 from the Solution Development and Implementation Category
- Database/Repository Design covering skills 2-6 from the Solution Development and Implementation Category
- Programming/Software Development covering skills 2-5 from the Solution Development and Implementation Category
- Testing covering skills 2-7 from the Solution Development and Implementation Category.
Assessing Your Skills Level

The SFIA framework has defined seven different levels of responsibility based on the levels of autonomy, influence, complexity and business skills required to demonstrate that a person is working at each of the levels. The generic skills are given below:

**Level 5**
Autonomy
- Works under broad direction. Work is often self-initiated, is fully accountable for meeting allocated technical and/or project/supervisory objectives. Establishes milestones and has a significant role in the delegation of responsibilities.

**Influence**
- Influences organisation, customers, suppliers, partners and peers on the continuation of their own specialist. Builds appropriate and effective business relationships. Makes decisions which impact the success of assigned projects i.e. results, deadlines and budget. Has significant influence over the allocation and management of resources appropriate to given assignments.

**Complexity**
- Performs an extensive range and variety of complex technical and/or professional work activities. Understands work which requires the application of fundamental principles in a wide and often unpredictable range of contexts. Understands the relationship between own specialism and wider customer/organisational requirements.

**Business skills**
- Advises on the available standards, methods, tools and applications relevant to own specialism and can make appropriate choices from alternatives. Analyzes, designs, plans, executes and evaluates work to time, cost and quality targets. Assesses and evaluates risk. Communicates effectively, both formally and informally. Demonstrates leadership, facilitates collaboration between stakeholders who have diverse objectives. Understands the relevance of own area of responsibility/specialism to the employing organisation. Takes customer requirements into account when making proposals. Takes initiative to keep skills up to date. Mentors colleagues. Maintains awareness of developments in the industry. Analyses requirements and advises on scope and options for continuous operational improvement. Demonstrates creativity and innovation in applying solutions for the benefit of the customer/stakeholder. Takes account of relevant legislation.

**BCS – The Chartered Institute for IT requires that person needs to demonstrate that they are working at SFIA level 5 when they apply for Chartered IT Professional**
status. SFIA Level 4 in the competencies discussed above align well with our expectations Masters students. This was therefore chosen as the most appropriate level for MSc students to demonstrate their competency for at least one of the IT Professional skills.

At the beginning of the placement you should assess your current skills against the framework for the IT Professional Skills you have identified as being relevant for your role. This will be useful preparation for setting objectives.

Example

At the start of the placement Dafydd assesses his current skills against the descriptors for his identified IT Professional Skills.

Data Management starts at SFIA level 4 and Dafydd realises he has insufficient experience for this skill.

Data Analysis starts at SFIA level 2 but Dafydd realises that his experience is more appropriate to level 3. He has done most of the activities at level 3 except for advising database designers and other application team members.

Dafydd also finds that he has covered most of the areas at SFIA Level 3 for Database/Repository Design, Programming/Software Development and Testing.

Dafydd also looks at the generic skills and identifies several areas that he would like to get the opportunity to develop whilst on placement.

Setting Objectives for the Initial Report

At the start of your placement you need to work with your Placement Mentor to agree objectives for the Initial Report. Your Placement Mentor should set objectives relating to your work activities. However, you both need to discuss how you can work towards demonstrating competency to SFIA level 4 in one or more of the IT Professional Skills by the end of the placement. If you have identified several potential IT Professional Skills then it is advisable to set objectives for the two most relevant skills for the initial report. If you and your Placement Mentor have difficulty identifying at least one IT Professional Skill that will give you the opportunity to demonstrate you have reached SFIA level 4 if you are capable, then contact your SPP Tutor.

You also need to set objectives for developing your generic skills (autonomy, influence, complexity and business skills). These should address skills that will not be covered through your chosen IT Professional Skills.

When Dafydd first meets his Placement Mentor he discusses how he will be assessed on the placement including the need to demonstrate competency in one or more relevant Professional IT Skills from the SFIA framework. Dafydd discusses his current experience for the IT Professional Skills he has identified as relevant to his
Dafydd and his Placement Mentor meet the next day to discuss the work objectives. They agree that Data Analysis and Database/Repository Design are the two most relevant IT Professional Skills. They particularly focus on understanding the differences between level 3 and level 4 for these two skills to identify the areas that will build on Dafydd’s current skills.

They identify several areas that Dafydd needs to develop to reach SFIA Level 4 and they determine objectives to address these. Dafydd also mentions the generic skills he would like to develop over the placement and agrees objectives with his Placement Mentor.

Dafydd includes the objectives in his initial report. These are approved by the SPP Tutor as appropriate objectives for meeting the learning outcomes of the module and relevant to the programme of study.

**Review, Record and Evaluate your Progress**

You should use the SFIA framework to help you review, record and evaluate your progress on placement.

- On a weekly basis you should record examples in your portfolio that help to demonstrate that you are meeting the objectives in your initial report.
- At least once a month you should evaluate your progress in meeting your objectives. You should then meet to discuss your progress with your Placement Mentor.
- You may need to identify new IT Professional Skills or generic skills from the SFIA framework and agree new objectives with your Placement Mentor if you get further responsibilities during your placement. Objectives for new IT Professional Skills should only be added if there is a good chance that you will be able to demonstrate competency in at least one area that is specific to level 4 for that skill. We recommend that you restrict your objectives to no more than three IT Professional Skills.

**Example**

Dafydd finds time at the end of each week to update his portfolio with examples that show how his work activities are helping him meet his objectives.

At the end of each month Dafydd reviews and records his progress. He starts by evaluating how his work activities are helping him progress on his set of objectives and identifies what he is doing well and what areas need improvement. He then
meets with his Placement Mentor to discuss his progress and to agree any new objectives for the coming month.

Dafydd makes excellent progress and after six months he completes his tasks for the project he is working on. His Placement Mentor provides Dafydd with the opportunity to develop his project management skills by giving him responsibility for managing the database development in another project. They identify areas in the level 4 Project Management Professional IT skills and agree new objectives for Dafydd’s last four months.

**Develop Reflective Examples for the Interim and Final Reports**

For your interim report you will need to provide some reflective examples that demonstrate your competency at Level 4 in the appropriate Professional IT Skills and for developing your generic skills.

For your final report you need to choose a broad range of examples that demonstrate your competency in at least one Professional IT Skill at SFIA level 4. If you have focused on one IT Professional Skill then you will need to provide relevant examples that cover most (if not all) of the areas discussed for Level 4 of that skill. If you have covered two or three IT Professional Skills then you do not need to cover all areas of each skill. Focus instead on providing examples for the areas in each skill that are specific to Level 4 or that incorporate level 4 generic skills that are relevant to each IT Professional skill.

If you have developed several skills during the placement then it is advisable to restrict your chosen IT Professional Skills to two or three skills from the SFIA framework that will give you the best opportunity to demonstrate that you are working at level 4.

**Example**

Dafydd needs to write his interim report. He is pleased that he has recorded his experience on a regular basis and looks through the examples in his portfolio and his monthly progress reviews. Dafydd realises that he has a number of examples that could be included for the IT Professional Skills in the report. He realises that the generic level descriptors on page 12 of the SFIA framework are also useful in identifying the three examples that best demonstrate his autonomy and responsibility in carrying out the task including his involvement in the decision making, his influence with team members and other stakeholders, complexity of the task and how he has tackled this complexity and the relevant business skills required to carry out the task.

Dafydd writes up his examples addressing the relevant generic level descriptors and makes sure that each example has a clear explanation of how his work addresses a specific area of one of the IT Professional Skills for SFIA level 4. Where appropriate Dafydd evaluates the effectiveness of methods, tools and techniques used and he highlights areas for improvement. Dafydd reflects on what he has learnt for each example, and he discusses how he would do things differently in the future where appropriate.