1. Programme Code(s) (recruitment & exit awards)
   F2CC-CSE (Hons)
   F2CD-CSE (Ord)

2. Programme Titles for all awards (unabbreviated)
   Computer Systems

3. Main Award(s) (to be recruited to)
   BSc Honours
   BSc Ordinary (ALPs only)

4. Exit Awards (graduation only)
   BSc Honours / BSc Ordinary / Diploma HE / Certificate of HE

5. Date of Production
   06 April 2016

### 6. MANDATORY COURSES

<table>
<thead>
<tr>
<th>Edinburgh/Orkney/SBC</th>
<th>HWUM</th>
<th>Dubai</th>
<th>ALP</th>
<th>Collaborative Partner</th>
<th>Stage</th>
<th>Semester</th>
<th>Phase (Part-time only)</th>
<th>Code</th>
<th>Course Title</th>
<th>Credit Value</th>
<th>SCQF Level</th>
<th>Notes</th>
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<td>Web Design &amp; Databases</td>
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</tbody>
</table>

**STAGE 2**

|                      | F28IN |       |     |                        | 2     | 1        |                         |      | Interaction Design                  | 15           | 8          |       |
|                      | F28WP |       |     |                        | 2     | 1        |                         |      | Web Programming                      | 15           | 8          |       |
|                      | F28DA |       |     |                        | 2     | 1        |                         |      | Data Structures & Algorithms         | 15           | 8          |       |
|                      | F28PL |       |     |                        | 2     | 1        |                         |      | Programming Languages                | 15           | 8          |       |
|                      | F28SD |       |     |                        | 2     | 2        |                         |      | Software Design                      | 15           | 8          |       |
|                      | F28DM |       |     |                        | 2     | 2        |                         |      | Database Management Systems          | 15           | 8          |       |

**STAGE 3**

|                      | F29SO |       |     |                        | 3     | 1        |                         |      | Software Engineering                | 15           | 9          |       |
|                      | F29DC |       |     |                        | 3     | 1        |                         |      | Data Communications & Networking     | 15           | 9          |       |
|                      | F29AI |       |     |                        | 3     | 1        |                         |      | Artificial Intelligence & Intelligent Agents | 15           | 9          |       |
|                      | F29KM |       |     |                        | 3     | 1        |                         |      | Knowledge Management                 | 15           | 9          |       |
|                      | F29PD |       |     |                        | 3     | 2        |                         |      | Professional Development             | 15           | 9          |       |
|                      | F29OC |       |     |                        | 3     | 2        |                         |      | Operating Systems & Concurrency      | 15           | 9          |       |
|                      | F29LP |       |     |                        | 3     | 2        |                         |      | Language Processors                  | 15           | 9          |       |
|                      | F29SS |       |     |                        | 3     | 2        |                         |      | Sociotechnical & Soft Systems        | 15           | 9          |       |

**STAGE 4**

|                      | F20PA |       |     |                        | 4     | 1        |                         |      | Project: Research Methods & Requirements Engineering | 15           | 10         |       |
|                      | F20PB |       |     |                        | 4     | 2        |                         |      | Project: Design & Implementation      | 15           | 10         |       |
|                      | F20PC |       |     |                        | 4     | 2        |                         |      | Project: Testing & Presentation       | 15           | 10         |       |
# Form P6  Heriot-Watt University – Undergraduate Programme Structure & Notes Template

1. Programme Code(s) (recruitment & exit awards)
   F2CC-CSE (Hons)
   F2CD-CSE (Ord)

2. Programme Titles for all awards (unabbreviated)
   Computer Systems

3. Main Award(s) (to be recruited to)
   BSc Honours
   BSc Ordinary (ALPs only)

4. Exit Awards (graduation only)
   BSc Honours / BSc Ordinary / Diploma HE / Certificate of HE

5. Date of Production
   06 April 2016

### 7. OPTIONAL COURSES

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<th>HWUM</th>
<th>Dubai</th>
<th>ALP</th>
<th>IDL</th>
<th>Collaborative Partner</th>
<th>Stage</th>
<th>Semester Phase (Part-time only)</th>
<th>Courses: (Please highlight any new courses and include the course descriptors)</th>
<th>Credit Value</th>
<th>SCQF</th>
<th>MQA</th>
<th>SCQF Level</th>
<th>Notes</th>
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</tbody>
</table>

#### STAGE 1

- Students in Edinburgh must choose either option or elective in semester 1

#### STAGE 2

- Students must choose 2 options in semester 2

#### STAGE 4

- Student choose 3 courses in semester 1 and 2 courses in semester 2

### 8. ELECTIVES (please provide a detailed description and course lists where possible)

**Stage 1:** Any SCQF Level 7 course, which must be approved by the Board of Studies.

**Stage 2:**

**Stage 3:**

**Stage 4:**

**Stage 5:**
1. Programme Code(s) (recruitment & exit awards)
   F2CC-CSE (Hons)
   F2CD-CSE (Ord)

2. Programme Titles for all awards (unabbreviated)
   Computer Systems

3. Main Award(s) (to be recruited to)
   BSc Honours
   BSc Ordinary (ALPs only)

4. Exit Awards (graduation only)
   BSc Honours / BSc Ordinary / Diploma HE / Certificate of HE

5. Date of Production
   06 April 2016

PROGRAMME NOTES

9. COMPOSITION & STAGE NOTES e.g. xx taught Courses (xx mandatory & xx optional)
   Stage 1:
   8 taught courses: 7 mandatory
   1 optional/elective in Edinburgh
   1 optional in Dubai & ALPs

   Stage 2:
   8 taught courses: 6 mandatory and 2 optional
   Direct entrants to Stage 2 and internal transfers from other degrees will be expected to have an appropriate background
   in programming and database technology

   Stage 3:
   8 taught courses, all mandatory
   Direct entrants to Stage 3 will be expected to have appropriate programming experience and background knowledge.
   Candidates shall pursue a group project throughout the year, which shall be synoptically assessed in conjunction with
   material from the associated courses (F29SO and F29PD).

   Stage 4:
   Stage 4 will not be offered at the ALP.
   Edinburgh and Dubai Programmes have 3 mandatory and 5 optional
   In any one year not all optional courses may be offered. Guidance in course choice will be given by academic
   mentors. Candidates are required to undertake an individual dissertation project which shall run throughout the year.

10. NOMINAL PASS MARK/GRADE

11. SUMMARY OF ASSESSMENT METHODS (Expressed as a percentage)
   (Highlight any changes)

   Coursework: Varies in courses from 0% to 50%
   Examination: Varies in courses from 50% to 100%

   Integrated Masters
   Mark Grade
   Honours
   Ordinary 40% D
   Diploma 40% D
   Certificate 40% D

12. PROGRESSION REQUIREMENTS
   Part A. Minimum number of credits required to progress through each stage are as follows
   Stage 1 to 2: 120 credits (8 courses)
   Stage 2 to 3: 240 credits (16 courses)
   Stage 3 to 4: 360 credits (24 Courses) and an overall exam average of 50% at the first attempt.
   Stage 4 to 5:

   Part B. Minimum grade D required in the following courses: (progression requirements exceeding a grade D must be qualified)
   Stage 1: Software Development (F27SA), Interactive Systems (F27IS), Web Design & Databases (F27WD), Introduction to
   Computer Systems (F27CS), Software Development 2 (F27SB) and Software Development 3 (F27SG)
   Stage 2: Interaction Design (F28IN) Web Programming (F28WP), Data Structures & Algorithms (F28DA), Database
   Management Systems (F28DM), Software Design (F28SD) and Programming Languages (F28PL)
   Stage 3: 6 courses including Software Engineering (F29SO) & Professional Development (F29PD). Re-assessment in Stage 3 is
   available for credit only and not to improve overall average.

   Stage 4:

13. RE-ASSESSMENT OPPORTUNITIES
   The re-assessment policy for this programme is in line with University Regulations as set out below (please tick)
   Yes √ No
   If you have selected “No” please amend the statement below and highlight changes.

   If you have selected “No” please amend the statement below and highlight changes.

   1. A student who has been awarded a Grade E or a Grade F in a course may be re-assessed in that course.
   2. A student shall be permitted only one re-assessment opportunity to be taken at the Resit diet of examinations following the first
   assessment of the course.
   3. A student shall not be re-assessed in any qualifying course taken in the final stage of a course of study.
   4. The Progression Board may permit a student to be re-assessed in any qualifying course not taken in the final stage in order to gain
   credits for the course, provided that the mark or grade obtained in the first assessment of any such course is used in determining
   the classification of the degree to be awarded.
1. Programme Code(s) (recruitment & exit awards)
F2CC-CSE (Hons)
F2CD-CSE (Ord)

2. Programme Titles for all awards (unabbreviated)
Computer Systems

3. Main Award(s) (to be recruited to)
BSc Honours
BSc Ordinary (ALPs only)

4. Exit Awards (graduation only)
BSc Honours / BSc Ordinary / Diploma HE /
Certificate of HE

5. Date of Production
06 April 2016

14. AWARDS, CREDITS & LEVEL
The awards, credits and level for this programme is in line with University Regulations as set out below (please tick)  Yes [√] No
If you have selected "No" please amend the statement below and highlight changes.

Part A. Credit Requirements

<table>
<thead>
<tr>
<th>Integrated Masters</th>
<th>N/A</th>
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</thead>
<tbody>
<tr>
<td>Honours Degree (inc MA)</td>
<td>480 SCQF credits including a minimum of 180 credits at Level 9 and 10 of which at least 90 credits at Level 10</td>
</tr>
<tr>
<td>Ordinary or General Degree</td>
<td>360 SCQF credits including a minimum of 60 credits at Level 9</td>
</tr>
<tr>
<td>Diploma of Higher Education</td>
<td>240 SCQF credits including a minimum of 90 credits at Level 8</td>
</tr>
<tr>
<td>Certificate of Higher Education</td>
<td>120 SCQF credits including a minimum of 90 credits at Level 7</td>
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</table>

Part B. Mark/Grade Requirements

<table>
<thead>
<tr>
<th>Integrated Masters</th>
<th>N/A</th>
</tr>
</thead>
</table>
| Honours Degree (inc MA) | 1st: Weighted Average >=70% over all qualifying courses at grades A-D
2.1: Weighted Average >=60% over all qualifying courses at grades A-D
2.2: Weighted Average >=50% over all qualifying courses at grades A-D
3rd: Weighted Average >=40% over all qualifying courses at grades A-D |
| Ordinary or General Degree | Minimum of grade D in all pre-requisite courses
These are default marks/grades. The Board of Examiners may exercise some discretion in accordance to University Regulations |
| Diploma of Higher Education | Minimum of grade D in all pre-requisite courses
These are default marks/grades. The Board of Examiners may exercise some discretion in accordance to University Regulations |
| Certificate of Higher Education | Minimum of grade D in all pre-requisite courses
These are default marks/grades. The Board of Examiners may exercise some discretion in accordance to University Regulations |

Part C. Additional Award Requirements
Honours degree classification is determined by performance in:
- Stage 3 averaged over all 8 courses (20%) at the first attempt
- The 5 assessed courses in Stage 4 (50%)
- The individual dissertation project in Stage 4 (30%)

15. ADDITIONAL PROGRAMME INFORMATION

16. Programme Accredited by
British Computer Society

17. QAA Subject Benchmarking Group(s)
Computing

18. UCAS Code(s)
I100
1. Programme Code(s) (recruitment & exit awards)
   F2CC – CSE
   F2C2 - CGP

2. Programme Titles for all awards (unabbreviated)
   Computer Systems
   Computer Systems (Computer Games Programming)

3. Main Award(s) (to be recruited to)
   BSc (F2CC-CSE)

4. Exit Awards (for graduation only)
   BSc (Ord) F2CD-CSE
   BSc (Hons) F2CC-CSE
   BSc (Hons) F2C2-CGP

5. Type
   School specialist degree

6. Programme Accredited by
   Mathematical & Computer Sciences

7. UCAS Code
   I100

8. School
   Accredited by
   Mathematical & Computer Sciences

9. QAA Subject Benchmarking Group(s)
   Computing

10. Date of Production/Revision
    09 October 2013

11. Educational Aims of the Programme

   The educational aim is to provide students with a blend of Computer Science and Information Systems. Students will gain expertise in management and socio-technical systems together with a theoretical foundation in, and applied skills with, Computer Science. They will also be provided with professional skills which will enable graduates to communicate clearly, work effectively and efficiently in industry and commerce.

12. The Programme provides opportunities for learners to achieve the following outcomes:

   - **Subject Mastery**
     - Understanding, Knowledge and Cognitive Skills
       - To develop knowledge and skills in the elicitation and analysis of user requirements, design and evaluation of solutions, and the implementation and quality assurance of the chosen solution.
       - To be able to develop well-structured, efficient, usable and well-documented programs.
       - To know what general classes of problems are amenable to computer solution and be able to select the appropriate tools required for particular problems.
       - To be able to develop an abstract model for a given problem and devise appropriate mechanized techniques to solve the problem.
       - To develop knowledge of the aspects of management required to understand the commercial and business contexts within which information systems are used.

     - Scholarship, Enquiry and Research
       - To gain an understanding of the theoretical foundations of computation and its relevance to everyday computing.
       - To be able to design, implement, document, verify and validate relatively large heterogeneous software systems.
       - To be able to assess the quality of software systems, both in terms of their functional and non-functional properties.
| 1. Programme Code(s) (recruitment & exit awards) | F2CC – CSE | F2C2 - CGP |
| 2. Programme Titles for all awards (unabbreviated) | Computer Systems | Computer Systems (Computer Games Programming) |
| 3. Main Award(s) (to be recruited to) | BSc (F2CC-CSE) |
| 4. Exit Awards (for graduation only) | BSc (Ord) F2CD-CSE | BSc (Hons) F2CC-CSE | BSc (Hons) F2C2-CGP |
| 5. Type | School specialist degree |
| 6. Programme Accredited by | UCAS Code I100 |
| 7. School | Mathematical & Computer Sciences |
| 8. QAA Subject Benchmarking Group(s) | Computing |
| 9. Date of Production/Revision | 09 October 2013 |

**Personal Abilities**

**Industrial, Commercial and Professional Practice**

♦ To maintain and update technical knowledge; to take responsibility for personal and professional development.

♦ To appraise the impact of computers on society and the influence of society on the development of the technology and use of computers.

♦ To assess aspects of the law related to computer-based information, or the role of standards in safety, quality and security, of security issues and of the BCS Codes of Practice and Conduct.

**Autonomy, Accountability and Working with Others**

♦ To undertake self-directed work; to assimilate information from multiple sources; to examine results and generate conclusions; to impart ideas effectively in visual, verbal or written form.

♦ To work effectively either individually or as part of a team.

♦ To apply subject-mastery outcomes to monitor, analyse, model, specify, design, communicate, implement, evaluate, control and plan.

♦ To be aware of, and be able to respond to, the social and legal implications and consequences of the use of computers.

♦ To be able to analyse problem spaces; develop and work with abstractions; appraise material and ideas; to apply a methodical and innovative approach to problem solving; to integrate theory and practice.

**Communication, Numeracy and ICT**

♦ To be able to present, analyse and interpret numerical and graphical data.

♦ To be able to communicate effectively, informally or formally, to knowledgeable or lay audiences.
<table>
<thead>
<tr>
<th>1. Programme Code(s) (recruitment &amp; exit awards)</th>
<th>2. Programme Titles for all awards (unabbreviated)</th>
<th>3. Main Award(s) (to be recruited to)</th>
<th>4. Exit Awards (for graduation only)</th>
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<tr>
<td>F2CC – CSE</td>
<td>Computer Systems Computer Systems (Computer Games Programming)</td>
<td>BSc (F2CC-CSE)</td>
<td>BSc (Ord) F2CD-CSE BSc (Hons) F2CC-CSE BSc (Hons) F2C2-CGP</td>
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<th>5. Type</th>
<th>6. Programme Accredited by</th>
<th>7. UCAS Code</th>
<th>8. School</th>
<th>9. QAA Subject Benchmarking Group(s)</th>
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<td>School specialist degree</td>
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<td>I100</td>
<td>Mathematical &amp; Computer Sciences</td>
<td>Computing</td>
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<th>10. Date of Production/Revision</th>
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<tr>
<td>09 October 2013</td>
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13. Approaches to Teaching and Learning:

Lectures, Tutorials (practicals, laboratories), Coursework, (assignments, individual projects, group projects, essays, reports, presentations, log/journals, dissertation), Self-study are linked to lecture-based, resource-based and problem-based teaching styles, to relate with motivational, assimilative, consolidative and evaluative phases of learning.

Approaches to teaching and learning are continually reviewed and developed with the aim of matching them to the abilities and experiences of students, with regard also for the subject area. Specific details about teaching and learning methods are provided in the appropriate course descriptors.

14. Assessment Policies:

The following assessment methods are used:

Understanding, knowledge and subject specific skills are assessed through the range of methods reflected by written examinations, coursework assignments, software artefacts, group and individual projects, written reports and oral presentations. Diagnostic, formative, continuous and summative types of assessment aim to correlate with methods of assessment.

Approaches to assessment are continually reviewed. Specific details about methods of assessment are provided in the appropriate course descriptors.