Revised regulations for the MSc in System Level Integration

The Taught Masters Programme in System Level Integration is offered jointly by the University of Edinburgh, the University of Glasgow, Heriot-Watt University and the University of Strathclyde who together have formed the Institute for System Level Integration. There are two forms of the programme: a residential version and a part-time version by distance learning.

Below are revised regulations for the programme. The substantive changes are to the list of courses specified in the Degree Programme Tables. These update the list with the new courses previously approved, but not yet included in the Tables.

These regulations are specific to this programme and have a structure determined by the Memorandum of Agreement between the Universities involved. Hence the course credits and structure of the DPT do not conform to the standard University of Edinburgh format.

The Committee is invited to approve the changes to the regulations.

16. MSc/Dip/Certificate/Continuing Education in System Level Integration (Institute for System Level Integration)

The Taught Masters Programme in System Level Integration is offered jointly by the University of Edinburgh, the University of Glasgow, Heriot-Watt University and the University of Strathclyde who together have formed the Institute for System Level Integration. The aim of this course is to provide students with the knowledge and skills required in the design and integration of electronic systems for today's electronic market. Emphasis will be given to the design, authoring and integration of Intellectual Property (IP) cores for SOC products for fast time-to-market including both hardware and embedded software design.

16.1 MSc/Dip/Certificate/Continuing Education in System Level Integration

The Programme is open to graduating and Continuing Education students who may undertake one or more masters modules in a mixture of study modes including full-time or part-time. It is also possible to carry out a number of these activities in a distance learning mode of study (see regulation 16.2). On successful completion of a prescribed number of credits, graduating students will be awarded a postgraduate qualification made in the name of all four universities. Continuing Education students who successfully complete one or more masters modules will be awarded credit and will be supplied with an appropriate record of achievement which can be used for formal continuing professional development purposes.

The approved curriculum is composed so that the main theme of the programme is that of System Level Integration. However, a number of optional streams exist that allow students to specialise in a preferred area. In addition, the postgraduate qualifications available share common coursework thus facilitating the transfer in full of completed credit between these awards.

General Regulations Unless otherwise specified in these course specific regulations, the general regulations of the nominated administering university (presently the University of Edinburgh) shall apply to all students on the Masters Programme in System Level Integration.

Admissions

Entrance Requirements: Candidates must normally possess:
(i) at least a second class honours degree in Computing/ Computer Science or Electronic and/or Electrical Engineering from a university in the United Kingdom; or
(ii) a qualification deemed by the Institute Management Committee to be equivalent to the above; and/or
(iii) professional or industrial experience deemed appropriate by the Institute Management Committee.
Entrance Date: Full-time students shall normally join the programme at the beginning of each academic year (early October). Part-time students may be allowed to join the programme at any appropriate point within the academic year.

Concurrent Registration and Transfer: All graduating students shall normally be initially registered concurrently for the postgraduate degree/diploma/certificate until a final decision on the award has been reached. Transfer between awards will normally occur through agreement between the student and Programme Director or as recommended by the Institute Board of Examiners. The Examiners shall have the discretion to recommend that a candidate registered for the Master of Science in System Level Integration transfer to the Postgraduate Diploma or Postgraduate Certificate in System Level Integration. The SCOTCAT credits given for work performed towards the Master of Science shall count towards the alternative award of Postgraduate Diploma or Postgraduate Certificate.

Duration of Study

Normal Duration - The minimum and maximum duration of study is dependent on the individual award and applies to graduating students only. The following minimum and maximum duration of study applies:

(i) Normal Minimum Period of Study
   - Postgraduate Certificate: 4 months full-time 12 months part-time.
   - Postgraduate Diploma: 9 months full-time 18 months part-time.
   - Master of Science: 12 months full-time 21 months part-time.

(ii) Normal Maximum Period of Study
   - Postgraduate Certificate: 12 months full-time 3 years part-time.
   - Postgraduate Diploma: 2 years full-time 5 years part-time.
   - Master of Science: 2 years full-time 6 years part-time.

Nature of Study

The programme is organised in terms of a set of modules whose successful completion earns a SCOTCAT credit rating (Scottish Master’s level). Each SCOTCAT credit accounts for 10 notional hours of student learning activity.

Activities may include lectures, self study, laboratories, seminars, tutorials, case studies, group work, project work, and work experience.

Curriculum

Approved List of Taught Modules: All candidates will undertake activities as set out in the Degree Programme Table.

Master of Science: All candidates for the award of Master of Science in System Level Integration will be required to undertake activities totalling 180 or more SCOTCAT credits (Scottish Masters Level) made up of 120 or more SCOTCAT credits (Scottish Masters Level) taken from the approved list of taught modules and normally including ALL compulsory modules. Additionally, there will be a distinctive dissertation reporting on a supervised project whose rating is 60 SCOTCAT credits (Scottish Masters Level). All candidates for the Master of Science will undertake this project activity which must be on an approved topic in System Level Integration.

Postgraduate Diploma: All candidates for the award of Postgraduate Diploma in System Level Integration will be required to undertake 120 or more SCOTCAT credits (Scottish Masters Level) taken from the approved list of taught modules normally including ALL compulsory modules.

Postgraduate Certificate: All candidates for the award of Postgraduate Certificate in System Level Integration will be required to undertake 60 or more SCOTCAT credits (Scottish Masters Level) taken from the approved list of taught modules normally including ALL compulsory modules.

Diploma Practical Exercise: With the permission of the Programme Director, candidates for the award of Postgraduate Certificate or Postgraduate Diploma in System Level Integration may substitute modules from the approved list with a practical exercise of value 20 SCOTCAT credits.
(Scottish Masters Level). This prescribed/optional practical exercise must be on an approved topic in System Level Integration.

Under instruction from the Institute Board of Examiners, candidates for the award of Postgraduate Certificate or Postgraduate Diploma in System Level Integration may be directed to undertake a practical exercise of value 20 SCOTCAT credits (Scottish Masters Level) as an alternative to resitting failed or incomplete modules.

**Recognition of Prior/External Learning or Experience:** With the approval of the Programme Director, recognition up to a maximum of 45 SCOTCAT credits (Scottish Masters Level), or equivalent, which have not contributed to the award of another degree, may be given for prior/external learning or experience. This recognition will normally be based on relevance to the System Level Integration theme and the award being sought. Credits taken more than five years prior to admission will not be accepted. Maximum credit recognition for the following qualifications applies:

**Award Maximum Recognition of Prior/External Learning**

<table>
<thead>
<tr>
<th>Qualification</th>
<th>Maximum Recognition</th>
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<tbody>
<tr>
<td>Postgraduate Certificate</td>
<td>20 SCOTCAT</td>
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<tr>
<td>Postgraduate Diploma</td>
<td>30 SCOTCAT</td>
</tr>
<tr>
<td>Master of Science</td>
<td>45 SCOTCAT</td>
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</tbody>
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**Continuing Education for Electronics Systems Integration (CEESI):** With the approval of the Programme Director, recognition up to a maximum of 60 SCOTCAT credits (Scottish Masters Level), or equivalent, which have not contributed to the award of another degree, may be given for prior/external learning or experience gained through the CEESI programme. This recognition will normally be based on relevance to the System Level Integration theme and the award being sought. Credits from CEESI may not be combined with credits from other sources for the purposes of credit recognition. Credits taken more than five years prior to admission will not be accepted. Maximum credit recognition for the following qualifications applies:

**Award Maximum Recognition of Prior/External Learning Under CEESI**

<table>
<thead>
<tr>
<th>Qualification</th>
<th>Maximum Recognition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Postgraduate Certificate</td>
<td>20 SCOTCAT</td>
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<tr>
<td>Postgraduate Diploma</td>
<td>40 SCOTCAT</td>
</tr>
<tr>
<td>Master of Science</td>
<td>60 SCOTCAT</td>
</tr>
</tbody>
</table>

**Assessment**

**Method of Assessment:** Each module will be assessed by any approved combination of written examinations, continuous assessment, a dissertation, or oral examinations.

**The Institute Board of Examiners:** The Board of Examiners shall consist of: the Programme Director; the co-ordinators of the taught modules; the Heads of the contributing Departments; the External Examiners; and such other members of academic staff of the partner universities as may be required from year to year. The Board shall be chaired by a professor of the nominated administering university. A quorum must include the External Examiners, the Programme Director and a representative from each of the Universities.

**Reassessment:** A candidate whose performance in any activity within a module fails to satisfy the Institute Board of Examiners may be permitted by the Examiners to attempt to pass in that activity on one further occasion only and normally not later than 1 year from the date of the first attempt. In such cases the examiners shall prescribe whether the candidate shall be required to re-attend the whole course or specific parts of the course, or whether the candidate may be permitted to present for re-examination without further attendance on the course.

**Award**

**Master of Science:** In order to qualify for the award of the Master of Science in System Level Integration, a candidate must have:

(i) accumulated no fewer than 180 SCOTCAT credits (Scottish Masters Level) on the basis of successful completion of the approved curriculum and/or recognised prior/external learning or experience;
(ii) a pass in the individual dissertation worth 60 SCOTCAT credits (Scottish Masters Level) included in the total of 180 credits.

Postgraduate Diploma: In order to qualify for the award of the Postgraduate Diploma in System Level Integration, a candidate must have accumulated no fewer than 120 SCOTCAT credits (Scottish Masters Level) on the basis of successful completion of the approved curriculum and/or recognised prior/external learning or experience.

Postgraduate Certificate: In order to qualify for the award of the Postgraduate Certificate in System Level Integration, a candidate must have accumulated no fewer than 60 SCOTCAT credits (Scottish Masters Level) on the basis of successful completion of the approved curriculum and/or recognised prior/external learning or experience.

Distinction: Both the MSc in System Level Integration and the Diploma in System Level Integration may be awarded with distinction.

16.2 MSc/Dip/Certificate/Continuing Education in System Level Integration (by Distance Learning)

Description

The Programme is open to graduating and Continuing Education students who may undertake one or more masters modules in a part-time, distance learning mode of study. On successful completion of a prescribed number of credits, graduating students will be awarded a postgraduate qualification made in the name of all four universities. Continuing Education students who successfully complete one or more masters modules will be awarded credit and will be supplied with an appropriate record of achievement which can be used for formal continuing professional development purposes.

The approved curriculum is composed so that the main theme of the programme is that of System Level Integration. However, a number of optional streams exist that allow students to specialise in a preferred area. In addition, the postgraduate qualifications available share common coursework thus facilitating the transfer in full of completed credit between these awards.

General Regulations

Unless otherwise specified in these course specific regulations, the general regulations of the nominated administering university (presently the University of Edinburgh) shall apply to all students on the Masters Programme in System Level Integration.

Admissions

Entrance Requirements: Candidates must normally possess:

(i) at least a second class honours degree in Computing/ Computer Science or Electronic and/or Electrical Engineering from a university in the United Kingdom; or

(ii) a qualification deemed by the Institute Management Committee to be equivalent to the above; and/or

(iii) professional or industrial experience deemed appropriate by the Institute Management Committee

Residence Requirements: Candidates on this programme will be exempt from any normal on-campus requirements.

Entrance Date: Students may be allowed to join the programme at any appropriate point within the academic year.

 Concurrent Registration and Transfer: All graduating students shall normally be initially registered concurrently for the postgraduate degree/diploma/certificate until a final decision on the award has been reached. Transfer between awards will normally occur through agreement between the student and Programme Director or as recommended by the Institute Board of Examiners. The Examiners shall have the discretion to recommend that a candidate registered for the Master of Science in System Level Integration transfer to the Postgraduate Diploma or Postgraduate Certificate in System Level Integration. The SCOTCAT credits given for work performed towards the Master of Science shall count towards the alternative award of Postgraduate Diploma or Postgraduate Certificate.

Duration of Study

Normal Duration - The minimum and maximum duration of study is dependent on the individual award and applies to graduating students only. The following minimum and maximum duration of study applies:

(i) Normal Minimum Period of Study

Postgraduate Certificate: 12 months part-time.
Postgraduate Diploma: 18 months part-time.
Master of Science: 21 months part-time.
(ii) Normal Maximum Period of Study
Postgraduate Certificate: 3 years part-time.
Postgraduate Diploma: 5 years part-time.
Master of Science: 6 years part-time.

Nature of Study
The programme is organised in terms of a set of modules whose successful completion earns a SCOTCAT credit rating (Scottish Master's level). Each SCOTCAT credit accounts for 10 notional hours of student learning activity.

Modules are available online via Blackboard, a secure managed learning environment, hosted on the ISLI server. Students can access course materials via the internet at any hour of the day from any geographical location. Blackboard is used to give access to learning materials, enhance communications, encourage peer support and monitor student progress. Modules have been carefully planned and structured to assist students pace their learning. Dedicated tutors support students in their studies by a variety of methods, including web-based discussion groups, email and telephone. Some modules have a 2-3 day residential component where students may be required to attend ISLI or a partner institution world-wide for face-to-face tutorials, access to industry design tools/design exercises and to undertake examinations under controlled conditions.

Curriculum
Approved List of Taught Modules: All candidates will undertake activities as set out in the Degree Programme Table.
Candidates studying modules by distance learning will only follow modules provided on this basis unless approval is given by the College Postgraduate Studies Committee. Candidates studying modules delivered through the traditional methods (see regulation 16.1) will only be able to study modules by distance learning following approval by the College Postgraduate Studies Committee.

Master of Science: All candidates for the award of Master of Science in System Level Integration will be required to undertake activities totalling 180 or more SCOTCAT credits (Scottish Masters Level) made up of 120 or more SCOTCAT credits (Scottish Masters Level) taken from the approved list of taught modules and normally including ALL compulsory modules. Additionally, there will be a distinctive dissertation reporting on a supervised project whose rating is 60 SCOTCAT credits (Scottish Masters Level). All candidates for the Master of Science will undertake this project activity which must be on an approved topic in System Level Integration.

Postgraduate Diploma: All candidates for the award of Postgraduate Diploma in System Level Integration will be required to undertake 120 or more SCOTCAT credits (Scottish Masters Level) taken from the approved list of taught modules normally including ALL compulsory modules.

Postgraduate Certificate: All candidates for the award of Postgraduate Certificate in System Level Integration will be required to undertake 60 or more SCOTCAT credits (Scottish Masters Level) taken from the approved list of taught modules normally including ALL compulsory modules.

Diploma Practical Exercise: With the permission of the Programme Director, candidates for the award of Postgraduate Certificate or Postgraduate Diploma in System Level Integration may substitute modules from the approved list with a practical exercise of value 20 SCOTCAT credits (Scottish Masters Level). This prescribed/optional practical exercise must be on an approved topic in System Level Integration.

Under instruction from the Institute Board of Examiners, candidates for the award of Postgraduate Certificate or Postgraduate Diploma in System Level Integration may be directed to undertake a practical exercise of value 20 SCOTCAT credits (Scottish Masters Level) as an alternative to resitting failed or incomplete modules.

Recognition of Prior/External Learning or Experience: With the approval of the Programme Director, recognition up to a maximum of 45 SCOTCAT credits (Scottish Masters Level), or equivalent, which have not contributed to the award of another degree, may be given for prior/external learning or experience. This recognition will normally be based on relevance to the System Level Integration theme and the award being sought. Credits taken more than five years prior to admission will not be accepted. Maximum credit recognition for the following qualifications applies:
Award Maximum Recognition of Prior/External Learning
Postgraduate Certificate  20 SCOTCAT (Scottish Masters Level)
Postgraduate Diploma    30 SCOTCAT (Scottish Masters Level)
Master of Science       45 SCOTCAT (Scottish Masters Level)

Continuing Education for Electronics Systems Integration (CEESI): With the approval of the Programme Director, recognition up to a maximum of 60 SCOTCAT credits (Scottish Masters Level), or equivalent, which have not contributed to the award of another degree, may be given for prior/external learning or experience gained through the CEESI programme. This recognition will normally be based on relevance to the System Level Integration theme and the award being sought. Credits from CEESI may not be combined with credits from other sources for the purposes of credit recognition. Credits taken more than five years prior to admission will not be accepted. Maximum credit recognition for the following qualifications applies:

Award Maximum Recognition of Prior/External Learning Under CEESI
Postgraduate Certificate  20 SCOTCAT (Scottish Masters Level)
Postgraduate Diploma    40 SCOTCAT (Scottish Masters Level)
Master of Science       60 SCOTCAT (Scottish Masters Level)

Assessment
Method of Assessment: As with the on-campus delivery, students are assessed by a combination of examination and coursework. If required, oral examinations may take place following submission of the MSc or Diploma dissertation and/or submission of coursework assignments.

The Institute Board of Examiners: The Board of Examiners shall consist of: the Programme Director; the co-ordinators of the taught modules; the Heads of the contributing Departments; the External Examiners; and such other members of academic staff of the partner universities as may be required from year to year. The Board shall be chaired by a professor of the nominated administering university. A quorum must include the External Examiners, the Programme Director and a representative from each of the Universities.

Reassessment: A candidate whose performance in any activity fails to satisfy the Institute Board of Examiners may be permitted by the Examiners to attempt to pass in that activity on one further occasion only and normally not later than 1 year from the date of the first attempt. In such cases the examiners shall prescribe whether the candidate shall be required to re-attend the whole course or specific parts of the course, or whether the candidate may be permitted to present for re-examination without further attendance on the course.

Award
Master of Science: In order to qualify for the award of the Master of Science in System Level Integration, a candidate must have:
(i) accumulated no fewer than 180 SCOTCAT credits (Scottish Masters Level) on the basis of successful completion of the approved curriculum and/or recognised prior/external learning or experience;
(ii) a pass in the individual dissertation worth 60 SCOTCAT credits (Scottish Masters Level) included in the total of 180 credits.

Postgraduate Diploma: In order to qualify for the award of the Postgraduate Diploma in System Level Integration, a candidate must have accumulated no fewer than 120 SCOTCAT credits (Scottish Masters Level) on the basis of successful completion of the approved curriculum and/or recognised prior/external learning or experience.

Postgraduate Certificate: In order to qualify for the award of the Postgraduate Certificate in System Level Integration, a candidate must have accumulated no fewer than 60 SCOTCAT credits (Scottish Masters Level) on the basis of successful completion of the approved curriculum and/or recognised prior/external learning or experience.

Distinction: Both the MSc in System Level Integration and the Diploma in System Level Integration may be awarded with distinction.