

# Student Transitions

## Learning and Teaching Enhancement Project Report, May 2016

**Project Title:** Online content to support MSc level

**School & department:** EPS

1	<p><b><i>Names and Heriot-Watt University contact details of project team (please identify the project lead/ report author):</i></b> <b><u>Dr Gudrun Kocher-Oberlehner; <a href="mailto:g.kocher@hw.ac.uk">g.kocher@hw.ac.uk</a>; Ext: 8399</u></b> Dr Tadhg O'Donovan, <a href="mailto:T.S.ODonovan@hw.ac.uk">T.S.ODonovan@hw.ac.uk</a> Dr Amanda Hughes, <a href="mailto:a.j.hughes@hw.ac.uk">a.j.hughes@hw.ac.uk</a> Dr Medi Nazarinia, <a href="mailto:m.nazarinia@hw.ac.uk">m.nazarinia@hw.ac.uk</a> Dr Nick Bennett, <a href="mailto:n.bennett@hw.ac.uk">n.bennett@hw.ac.uk</a> Dr Firas Ibrahim, <a href="mailto:Firas.Ibrahim@hw.ac.uk">Firas.Ibrahim@hw.ac.uk</a></p>
2	<p><b><i>Key words:</i></b> <i>Postgraduate transitions, podcasts, mini-lectures</i></p>
3	<p><b><i>The problem being addressed, with background and context:</i></b></p> <p>Online content consisting of short, virtual, interactive mini-lectures (SVLs), MSc project podcasts and short interviews with teaching staff will be developed to aid student transitions to MSc programs across the School of Engineering and Physical Sciences. The project addresses three transitional aspects:</p> <ol style="list-style-type: none"><li>1. Transitional support for postgraduate students differs from undergraduate transitions. In a survey by the recruitment office, MSc students identified “to get a better idea of both the curriculum and the style and level of teaching and assessment in the MSc courses” as most important to them.</li><li>2. MSc programs at EPS recruit heavily from overseas, and MSc project students come from a wide range of academic and cultural backgrounds. Their transition can be made more complicated by the cultural and procedural difficulties.</li><li>3. Embedding of materials (already prepared mini-lectures) from previously funded (Transition Theme) and ongoing project on a Cross-Campus Collaboration Research Group project.</li></ol>
4	<p><b><i>Project overview &amp; aims:</i></b></p> <p>In order to address all aspects of the transitional needs of potential MSc students identified above, we proposed to produce a selection of reusable learning objects in different forms:</p> <ol style="list-style-type: none"><li>a) High-quality online mini-lectures, freely available for interested students on Heriot Watt's website (or YouTube). The lectures will be made available on the MSc programme websites and other information on curriculum and modules. The short video lectures will eventually cover modules from all courses offered within the school. Brief quiz questions during the lecture will provide immediate revision and feedback for the viewers on how well the section has been understood. The mini-lectures end with a typical exam questions covering the topic discussed. The problems to solve should provide a good representation of what is expected</li></ol>

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within the Scottish higher education system. This scheme is modified for continuous assessment courses like Advanced Renewable Energy Engineering (AREE), where former students will talk about their own design project.

Potential MSc students have reported that they are unsure about what is expected and how the teaching and learning will differ from their undergraduate study<sup>1</sup>. Focussing on virtually enhanced short online lectures will help students prepare for the “next” level in their education by giving them a clear example of what to expect.

- b) To introduce the teaching staff in a personal manner, a series of interviews with program directors is produced. These are in the form of short, 3 - 5 minute long pod-casts/interview with a common design. The interviews will cover both expectations from students to academic staff as well as expectations from staff to students. Student expectations will be evaluated by a short poll conducted during induction at the beginning of the next academic year. These interviews will provide further support to MSc student transitions.
- c) We will produce student lead, short, annotated podcasts of MSc projects with interactive links as another valuable resource to students. These podcasts will be modelled on the annotated podcasts produced in the previously funded project. The measures will further support preparedness to study.

First mini-lectures have been produced as part of a previously funded program (Student-Led Virtual Guides of Mechanical & Chemical Engineering) for the MSc course in Renewable Energy Engineering and for a cross-program lecture on plagiarism. The experiences gained in producing these first SVLs are extremely valuable and will significantly reduce production time for the additional lectures to be produced.

## 5 **Activities and details of project steps taken to achieve aims:**

### a) *Sort mini-lecture:*

*The previously produced mini-lecture on plagiarism has been modified after delivery in module B81EZ and subsequent student feedback. The mini-lecture will be used during the induction week in September 2016 as a compulsory component to ensure a common level among all new MSc students in EPS. Camtasia includes an automatic reporting system to make sure all students have worked through the mini-lectures. Mini-lecture on other modules will be made available via the information sites on Heriot-Watt's EPS MSc programme websites.*

*Mini-lectures on AREE have been structured as short pod-casts of previous students talking about their own design project and experience during their MSc.*

### b) *Interviews:*

*Interview Questions asked:*

- 1) *Can you please introduce yourself*
- 2) *Can you please introduce your programme*  
*(in case of Wolf Fruh, the question was modified to : Can you please introduce the MSc courses within EPS?)*

<sup>1</sup> <http://www.enhancementthemes.ac.uk/sheec/learning-from-international-practice/taught-postgraduate-student-experience/case-studies/case-study-23-transition-into-postgraduate-study-university-of-greenwich-london>

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	<p>3) <i>How do students chose their MSc thesis?</i>            4) <i>What do you see as the main difference between undergraduate and Postgraduate teaching?</i>            5) <i>What do you expect from your MSc students?</i>            6) <i>Whatis your main advice to MSc students?</i></p> <p><i>The intervies all start with a picture of Heriot-Watt's main entrance at Riccarton and the title of the respective programme. The questions are presented static without Audio (4 seconds each), which lead to the recorded answers; an added optical transition smoothes the transition from static to dynamic component.</i></p>
6	<p><b>Key points including challenges your team may have encountered:</b></p> <ul style="list-style-type: none"> <li>• <i>Missing recording equipment; this was partially elevated for Edinburgh campus by the equipment boughtby T. O'Donovan in a previous project, but delayed the recording of podcasts in Dubai.</i></li> <li>• <i>Schedules of programme directors: It was difficult to schedule the interviews with the respective project during semester 2 teaching. Interviews were subsequently conducted after the Easter Holidays.</i></li> </ul>
7a	<p><b>Describe specific project outputs so far:</b></p> <ul style="list-style-type: none"> <li>• <i>4 Mini-lectures on Plagiarism and two other modules (1 lecture on DMES, 2 podcasts on AREE). 2 of the mini-lectures are completely new, the other two have been modified and improved. The mini-lecture on Plagiarism will be included in the induction week in September 2016.</i></li> <li>• <i>5 interviews with programme directors</i></li> <li>• <i>1 podcast on MSc thesis from student in Edinburgh</i></li> <li>• <i>Heriot-Watt's webteam has been contacted for putting the project outputs online</i></li> <li>• <i>Doing similar interviews with Course responsible persons to describe course content and learning outcomes.</i></li> </ul>
7b	<p><b>Media output? Yes</b>  <i>A DVD with the produced content will be delivered by the deadline.</i></p>
8	<p><b>Please describe how your project has contributed to the Heriot-Watt University strategy and priorities for Enhancement in terms of changes brought about to date, which may be described in terms of combinations of strategy, policy or practice (as relevant):</b></p> <p><b>1. Shorter time to completion for Post-graduate Research students (PGR)</b>  <i>As mentioned, the levl of knowledge in some areas can differ considerable due to the inherent global diversity in the MSc student cohort at EPS. Plagiarism has been known as one of the areas, where these differences are particularly pronounced. Inclusion of the mini-lecture on plagiarism as a compulsory component of the induction week ensures a common base level for student knowledge on plagiarism from the onset of the program and helps avoid problems at a latter stage.</i></p>

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	<p><b>2. Improved retention and progression of undergraduate students</b></p> <ul style="list-style-type: none"> <li>• I would state that the measure described above also applies here, as it aims to minimise any disciplinary issues with plagiarism during assessment of students.</li> <li>• The informal setting used in the interviews with programme directors is aimed so students feel already familiar with lecturers when they arrive at Heriot Watt. We believe that this familiarity will make it more likely for students to approach lecturers at an early stage of their studies and improve communications, with a positive effect on their performance.</li> </ul> <p><b>3. Graduate attributes (strategy, policy, practice)</b></p> <p>Our mini-lectures follow the structure of Massive Open Online CourseS (MOOCs) ,with a period of presenting content and immediate revision/assessment in the form of a quiz. The experience of using these tools during their MSc can help our graduates to use them further as part of lifelong learning.</p>
9	<p><b>Describe how you are sharing good practice within Heriot-Watt and beyond. In particular, give details of any liaison with other universities in Scotland (e.g. plans for papers, attendance at conferences):</b></p> <p>We will suggest similar digital information packages for other schools within Heriot Watt and of course provide our expertise to our colleagues. As a lot of our MSc programmes have a business aspect and are offering modules from the School of Management and Languages, we will approach the course responsible persons for these modules to generate mini-lectures. The symposium in October will a good opportunity to introduce our colleagues to the work we have done and form possible collaborations.</p>
10	<p><b>Next steps:</b></p> <ul style="list-style-type: none"> <li>• Finishing of interviews with programme directors (3 interviews missing)</li> <li>• Finishing of podcasts from students in Dubai</li> <li>• Finishing of virtual campus tour.</li> <li>• Making the interviews, podcasts and mini-lectures available on the Herio-Watt websites; develop a procedure to add more content as it becomes available.</li> <li>• Continue with producing virtual mini-lectures from MSc modules</li> </ul>
11	<p><b>Additional information:</b></p>

Please be aware that this report will be publicly available on the University's webpages