

Project form for faculty plans: International Classroom project

General information	
Project title	EPiC Embedding Purposeful Interaction in the International Classroom
Intended start date	1 st September 2016
Intended period (1-2 years)	1 year
Budget requested (max. € 100.000 per faculty/50% faculty match)	€33,150
Faculty contact person	
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Project plan	
<p>Summary (max. 150 words): <i>short description of the faculty's approach, objectives and targeted results.</i></p> <p>The UCG philosophy is founded on small-scale learning, which is integrated into innovative interdisciplinary projects addressing learning outcomes in areas such as research, collaboration and communication. We aim to use an increase in diversity in the student body as a positive resource in the teaching and learning process, focusing specifically on the facilitation of 'purposeful interaction' across cultures and across disciplines. In this project, UCG provides the IC project with a pilot of purposeful interaction that will focus on 'evidence' of learning in heterogeneous small-scale project groups. Using intended international and intercultural learning outcomes (IILOs) as our starting point, we will look at the evidence of learning produced by students and consider how this learning emerged through processes including reflection and feedback. Our pilot, involving interdisciplinary project tasks, will result in a 'showcase' of purposeful interaction that is meaningful for educators in IC environments across the university.</p>	
<p>The Why</p> <ul style="list-style-type: none"> • <i>faculty and/or programme vision on internationalisation</i> 	
<p>Vision</p> <p>University College Groningen (UCG) has a vision of diversity as a catalyst to meaningful reflective education. International diversity is seen as an important element in making multiculturalism explicit in the classroom and is also seen as an important element in developing the necessary skills and understanding for the challenges of the 21st century. We believe that socially complex challenges can only be effectively addressed by incorporating multiple lenses, and therefore international diversity is regarded as a complement to interdisciplinarity; it is an essential building block for an international classroom.</p> <p>In a traditional educational system, homogeneity in students is often implicitly valued because the more similar students are, concerning e.g. knowledge level, interests, cultural background etc., the more efficient it is to serve more students in the same time. However, we believe that the challenges society faces require the collaboration of heterogeneous groups of people. This heterogeneity reflects many dimensions, such as different nationalities, disciplinary cultures and world-views. Learning to understand and value these differences starts with reflection on one's own functioning and cultural "programming". UCG recognizes the need to value heterogeneity, but we do not yet fully understand the heterogeneity in our students and staff, the impact this has on learning, and how to make use of this diversity as a resource in the classroom.</p>	

- *current situation (strengths and weaknesses)*

Strengths:

In the current UCG curriculum, interdisciplinary projects (named *IC2I* projects: *Imagination, Creation, Invention, Innovation*) run alongside a curriculum of foundation courses, majors and minors. During the *IC2I* projects, students collaborate in small groups, practicing and developing specific skills, which are also supported through a series of skills workshops. For example, a typical project in our 1st year is the design, organisation and delivery (project management) of an event on societal sustainability in order to make the concept and its concerns known to members of the general public. These projects provide students with a dynamic opportunity to combine different types of knowledge (from various disciplines) into products that provide evidence of learning. These projects lie at the heart of the UCG learning experience and are embedded in the learning community and its culture. Learning within the programme is described as “a self-directed, constructive, contextual and collaborative process” (*UCG application for limited initial accreditation*, p.19), and the *IC2I* projects should function as the dynamo for such learning.

Weaknesses:

However, two years after implementation, we recognize the need to adjust the relationship between the projects and the academic skills ‘workshops’, as well as other learning activities so that they are integrated in a transparent process through which students transfer and apply knowledge to various contexts related to global challenges. The International Classroom project represents an ideal opportunity to re-examine the *IC2I* projects, using the purposeful interaction lens proposed in the IC framework (Haines & Van den Hende 2014, see <http://www.rug.nl/ucg/MyUniversityFiles/Model-of-purposeful-interaction.pdf>). One aspect that requires particular attention is the use of learning outcomes in the project education (i.e. at course level). The IC project is an opportunity to reformulate the generic learning outcomes (see appendix 2), ensuring that they become more meaningful to students in the context of their project education, while incorporating international and intercultural elements more explicitly.

- *new opportunities*

The focus of this project is to investigate whether the UCG project education (*IC2I*) will fulfil its potential more effectively if all aspects of the purposeful interaction model are considered systematically. The projects lend themselves to this analysis because students already produce ‘evidence’ of their learning (reports, presentations, posters, etc.) that can be used to make their achievements explicit in relation to their learning outcomes. We will pilot our approach with one group of 20 students and their three teachers so that we can carry out a detailed analysis of the way that the components of purposeful interaction relate to each other in practice. Through this pilot project, this process will be described more thoroughly and analyzed from a ‘diversity’ perspective, so that the value of diversity as a learning resource is made explicit for the (central) IC project.

At faculty level, this will also enable us to adapt and implement our programme level learning outcomes to course level (project education), making them transparent and meaningful to teachers and students in the process. On the basis of the description and examples that are produced during the pilot, we will then be able to adapt our approach to project education at UCG. This will enable us to implement the purposeful interaction model explicitly through the project education line throughout the three years of the curriculum in our follow up.

To be specific, this project is an excellent opportunity to apply the theoretical perspectives developed during the IC project in a small-scale learning environment in order to improve the quality of the learning experienced in that environment. Leask explains that “engagement, the extent to which students participate in purposeful learning activities, is frequently linked to the quality of student learning outcomes” (Leask 2015: 71, citing Coates 2005). This ‘purposefulness’ depends on students producing “evidence that their learning can match the stated objectives” (Biggs 1996: 360-361), which highlights the importance of intended learning outcomes. This evidence can then become the focus of assessment (both summative and formative), feedback from peers and from content teachers, skills

teachers and language teachers, and reflection. Such processes are described by Hattie & Timperley (2007) as Feed Up, Feed Back, and Feed Forward, making explicit the fundamental learning questions 'Where am I going?', 'How am I going?', and 'Where to next?'

The model of purposeful interaction adds an international and intercultural dimension to this process, insisting on careful definition of the diversity that is brought by students and staff to the classroom and ensuring that this diversity is optimized as a learning resource through skilful task design and implementation. The model of purposeful interaction has the potential to act as a frame of reference for content teachers when considering the strengths and weaknesses of the educational events ('classes') they lead or facilitate. During this pilot project, we aim to use the model of purposeful interaction to provide a clear description of IC embedded in project education in a Liberal Arts & Science (LAS) curriculum.

The *EPiIC* project will produce evidence of learning (and feedback and reflection on this evidence) which will help developers of projects in the 2nd and 3rd years at UCG to think about the issues in learning through complex, professional collaboration across cultures (see also Appendix 1 on Learning Communities). To clarify the learner perspective on these processes, we propose a 'Master Class' on the IC for 2nd Year students (see implementation Step 1b) in September 2016 (in this period our 3rd Year students will nearly all be away on study semesters at other universities). In this way, these experienced (2nd Year) UCG students will help us to align the design of the pilot to the student perspective. To focus the attention of teachers on learning outcomes at course level, we also plan a Master Class on internationalizing learning outcomes delivered by IC experts in September 2016 (see implementation Step 1c). To ensure that this leads to implementation, we also propose two follow-up workshops run by the (central) IC project in cooperation with ESI.

Furthermore, as the IC group at FEB is planning to pilot purposeful interaction in the 2nd semester, the UCG project findings will provide FEB with valuable information, and the results of the two pilots will be an opportunity to compare and review how such practices function in larger (FEB) and smaller (UCG) educational communities. Also, because of the interdisciplinary nature of the UCG programme, the results of the *EPiIC* pilot will be relevant and recognisable ('showcase function') to educators in programmes at other faculties.

During the pilot, we will therefore have the opportunity to consider how purposefulness can result from interactive designs in project education in the International Classroom in relation to the IC framework goal of "working effectively with staff and student diversity through purposeful interaction". This includes consideration of intended international learning outcomes (IILOs), skilful pedagogy and a task design that facilitates the demonstration and assessment of key skills, in line with constructive alignment (Biggs 1996). We believe that our students will benefit from interacting in an environment in which intercultural perspectives are highlighted more explicitly, so that they develop and demonstrate the skills that are required when operating in heterogeneous groups. We will build on the structural establishment of diverse groups (Learning Communities project) and enhanced understandings of academic writing across disciplines and feedback on that writing (language & culture project), described in the synergy section below.

Key references:

- Biggs, J. (1996). Enhancing teaching through constructive alignment. *Higher Education*, 32, 347–364.
- Carroll, J. (2015). *Tools for Teaching in an Educationally Mobile World*. Abingdon: Routledge.
- Deardorff, D. (2006). Identification and Assessment of Intercultural Competence as a Student Outcome of Internationalization. *Journal of Studies in International Education*, Fall, 2006, 241–265.
- Green, W. & C. Whitsed (Eds.) (2015): *Critical Perspectives on Internationalising the Curriculum in Disciplines*. Rotterdam: Sense Publishers.
- Hattie, J., & Timperley, H. (2007). The Power of Feedback. *Review of Educational Research*, 77(1), 81–112.
- Leask, B. (2015). *Internationalizing the Curriculum*. Abingdon: Routledge.
- Westerholm, K. & A. Räsänen. 2015. Sharing and promoting disciplinary competences for university teaching in English: voices from the University of Jyväskylä language centre's TACE programme. In J.

Jalkanen, E. Jokinen & P. Taalas (Eds), *Voices in pedagogical development – Expanding, enhancing and exploring higher education language learning*, 131–157. Dublin: Research-publishing.net.
University of Groningen (2015). *The International Classroom (IC) pilot at the Faculty of Mathematics and Natural Sciences (FMNS): findings and recommendations*. Retrieved from <http://www.rug.nl/about-us/where-do-we-stand/education-policy/international-classroom/tweefmnsexecutivesummaryfinalversionapril2015-1.pdf>

- *verifiable objectives*

The *EpiC* project will use the model of purposeful interaction to explore the opportunities for learning through the intercultural dynamics of heterogeneous groups. Our objective is to develop a set of good practices in keeping with the UCG educational philosophy, through which the learning experiences in heterogeneous groups will be made explicit to teachers and students. We will observe how learning develops in the project setting with one group of students (n20) and compare our observations with the experiences of the teachers (3 x 2 interviews, before and after) and students (a focus group and questionnaire) as well as analyzing the evidence of learning produced by students during their tasks. During this process, we will also consult international experts, specifically Wendy Green, Betty Leask and Craig Whitsed during their visit to the IC project in September 2016. And we will undertake a reciprocal peer reviewing procedure with colleagues at FEB.

By implementing ‘purposefulness’ in the UCG curriculum on a small-scale and evaluating its results, we aim to address some of the key questions of the IC project:

- How does the diversity of students and staff in the IC contribute as a resource in the learning process?
- What ‘evidence’ is there of this learning (Biggs 1996) i.e. student work that can be assessed in terms of learning outcomes, such as written work, visuals in the form of posters etc., speech in the form of presentations)?
- What evidence is there of the formative assessment process i.e. in the feedback provided and reflection upon that feedback?
- What factors contribute in a positive way to the production of this learning (enablers) and which factors present barriers (blockers)?

These questions will allow us to build a case study that will showcase good practice. We will make this showcase available to others through the IC website, and disseminate it through workshops, presentations and one or more research articles.

- *motivate the choice of program(s).*

This pilot will take place in the 1st Year project education (Block 2, Year 1), with our most recent cohort. In the 2nd block of the 1st Year, participants (students and their educators) have settled in their learning environment (learning community) and practical teething problems associated with a new cohort and revised elements in the programme are less likely to interfere with the learning in the pilot. The project will focus on Sustainable Society and be developed and delivered by an experienced interdisciplinary team of UCG teachers. The pilot design will be partly informed by a ‘Master Class’ with 2nd year UCG students, given by experts on the Internationalisation of the Curriculum in September 2016, which will provide initial evidence on the student perspective on the international classroom at UCG. Furthermore, the results of the pilot will inform the pilot on purposeful interaction at FEB.

Approach

- *describe how the faculty will use the IC conceptual framework and parameters: describe how to align vision, learning outcomes, teaching and learning, and assessment at programme and at course level (please refer to annexed IC framework for further details)*

For the International Classroom project, we aim to pilot the model of ‘purposeful interaction’, which is one of the key concepts in the IC conceptual framework.

1. Design (Preparation):

Incorporate IC into the design of the project in the 1st Year Block 2 (November 2016-January 2017). In order to show how purposeful interaction can be implemented in a small-scale educational setting in an interdisciplinary context, we will highlight enabling factors and describe blockers in this process. This will involve checking three aspects of input:

- the diversity of the student group (*see also synergy with Learning Communities project, below*);
- the establishment of international/intercultural learning outcomes (*see additional expertise from central level described under Project Organisation, below*)
- skilled teaching in the IC (*see also synergy with Language & Culture project, below*);

For the learning outcomes, we need to consider our use of the UCG generic roles and learning outcomes (appendix 2). With the support of the IC project team (specifically Catherine Meissner) and/or the support of ESI, we will look into these learning outcomes and decide whether they should be refined in the light of the IC literature (Deardorff 2006; Carroll 2015; Leask 2015).

2. Implementation:

Step 0 (zero): June-September 2016:

(Re)design of the project task for the 1st year Block 2, including generic definition of the relevant learning outcomes

N.B. This task is essential to the project but will begin before the start of the project. It will be carried out by the UCG project Coordinator in close consultation with the proposed project team.

Step 1a: September 2016:

Detailed description of diversity in the UCG 1st year.

Outcome 1a: Description of diversity from a number of perspectives (see Westerholm & Räsänen 2015).

Step 1b: September 2016:

'Master Class' with 2nd year UCG students, given by experts on the Internationalisation of the Curriculum.

Outcome 1b: Initial evidence on the student perspective on the international classroom at UCG.

Step 1c: September-October 2016:

'Master Class' for teachers and follow up workshops. Definition of key intended learning outcomes for the pilot project and revision/specification of these learning outcomes into international/intercultural learning outcomes (IILOs).

Outcome 1c: Revised IILOs at course level for project work at UCG (including definition of the process for such revisions).

Step 2: October 2016:

Preparation of teachers/description of task and proposed 'evidence' with IILOs

Delivery depends on a skilful and consistent teaching, which will be aligned with the philosophy of UCG and the vision of the Learning Communities project. Teachers will describe the project task, including the proposed evidence (student products), the relation of these products to the IILOs through the assessment scheme, and details of feedback and reflection.

N.B. it is foreseen that discussion/intervision on academic writing and feedback across cultures will also take place as part of the Language & Culture policy project and feed into the IC pilot.

Step 3: November 2016-January 2017

A case study of Purposeful Interaction

Firstly, taking examples of student work, we will describe the evidence that is produced by students which demonstrates how diversity functions as a resource in the IC. This will include examples of intercultural and international learning as reflected in the learning outcomes.

We are interested in the perspectives of individual students and the choices that they make as a result of these perspectives. We will critically analyze the assessment, feedback and reflection processes in relation to this evidence (Hattie & Timperley 2007), and how this takes a variety of perspectives into

account to make the learning explicit. We will investigate the underlying values and thinking processes (what seems to be valued and what is less valued, and why?). We will make use of qualitative research methods, consisting of interviews with teaching staff (two per teacher, expectations before and experiences after) and a focus group and questionnaire with students to record the experiences in both teaching and learning. We will make recommendations in relation to the main dimensions of purposeful interaction.

Step 4: Evaluation/Dissemination: February-April 2017

We will evaluate the key findings and recommendations of the pilot within the IC project team, compare our findings with our colleagues at FEB (peer review), and consult internationally-renowned external experts connected to the IC project (Wendy Green, Betty Leask, Craig Whitsed). This evaluation will be written up as an evaluative case study, which will be similar in style to the original IC pilots (continuity) by the end of April. Further dissemination will also take place through IC project workshops, conference and seminar presentations and a written publication (article).

Step 5: Definition of follow up

On the basis of the evaluation of what we have learned from the pilot, we will consider further implementation of the IC at UCG in the 2nd and 3rd years. We may focus on building telecollaboration into the project design, demonstrating the value of ICT in bringing greater diversity and intercultural experiences into the programme from outside (Internationalisation at Home).

- *start at the programme level and describe how decisions at the programme level will influence course design.*

Both the intended learning outcomes (appendix 2) and an academic skills matrix (currently under development) will contribute at programme level to the design and definition of the pilot.

Project organization

- *describe stakeholders involved, activities and a time line*

Our main stakeholders will be 1st year students and educators, the latter being led by the UCG project coordinator. We aim to include as many members of the IC project team in the teaching and/or analysis as possible. This team includes Ayse Arslanargin, Roland Chiu, Wander Jager, Bettina van Hoven, Gerco Onderwater, and Margriet van der Waal. The Senior Tutor (Kevin Haines) will advise the team and coordinate the collection and analysis of evidence. *At UCG, we will take the following steps (see approach):*

Step 1a: September 2016: Detailed description of diversity in the UCG 1st year.

Step 1b: September 2016: 'Master Class' given by experts on the Internationalisation of the Curriculum.

Step 1c: September-October 2016: Definition of international/intercultural learning outcomes (ILOs) at course level.

Step 2: October 2016: Communication of the teacher role/training of teachers

Step 3: November 2016-January 2017: Collection of evidence and analysis

Step 4: February-April 2017: Evaluation/Dissemination

Step 5: Definition of follow up

- *describe responsibilities, roles, expertise and coordination in faculty and communication with stakeholders*

The pilot will be designed and run by the group of educators involved in the IC2I project in the 1st Year Block 2 with input from the UCG IC group and with expertise on learning outcomes from the IC central project. The Academic Director of the project line at UCG is responsible for the educational management of the project in cooperation with the Senior Tutor, who will lead the research and coordinate the activities of this project which are aligned with those of other related projects (Learning Communities, Language & Culture). This will take place in close cooperation with the programme director and the Dean. The project will have the full approval of the Faculty Board.

- *describe required additional expertise from central level and/or external expertise.*

External expertise is available from the IC project team (KH for 'purposeful interaction'). We will also require the expertise of the central IC team for a series of three practical workshops during 1st year Block 1 that support the development of intercultural/international learning outcomes. We understand that this builds on the expertise of the external experts available to the IC project, such as Carroll, Deardorff, Green and Leask.

Sustainability and dissemination

- *describe how the results will be relevant for other programmes in the faculty*

UCG has one programme. The results of the pilot in the project education in 1st Year Block 2 will inform the project education in other 1st and 2nd year blocks. Furthermore, as many UCG teaching staff also work in other faculties, the experiences of the pilot may prove beneficial for programmes elsewhere in the university (we will review with FEB).

- *explain how results and expertise will be shared, developed and embedded in a structural way faculty-wide after the completion of the project.*

We will maintain the IC group at UCG and use this pilot as a basis for further implementation of the IC at UCG. This will ensure continuity of the practices we have evaluated in the pilot and enable us to extend these practices, possibly through telecollaboration if this is deemed appropriate.

Synergy with International Classroom project and/or Learning Communities Project

- *Describe how the objectives, activities and approach for this LCP faculty plan are related to objectives, activities and approach for the International Classroom project and/or Learning Communities project, from an overall vision and from objectives.*

Two areas of synergy:

1. For the Learning Communities project (see appendix 1), we are proposing to establish diverse project groups which will comprise 'learning communities' of roughly 20 students divided into heterogeneous project groups of 4-5 students. Projects will be designed to encourage students to interact with real world problems that can be approached from a variety of angles, and a final project report that combines these angles. This design will mean that we already have an educational approach that is compatible with the IC approach. The challenge for the IC project is then to focus on the "purposefulness of the learning in relation to the evidence of learning, feedback and reflection" (as described above).
2. For the Language & Culture Policy, in the 1st Block we will support the educators in making clear to students how expectations of academic writing differ in different disciplinary cultures. We will help them in providing meaningful feedback not only on content (in which they are expert) but also on the academic writing. We will seek to align their feedback and suggested tools with the input provided by the University Language Centre. This parallel process will make a valuable contribution to the work of the IC project in relation to purposeful feedback and reflection, as well as showing the value of cooperation with external experts (in this case the Language Centre – and possibly others).

Finances

- *specify budget required from the Executive Board (max. 100,000 Euros) and budget matched by the Faculty Board. Refer to stakeholders, expertise and activities and timeline described under project organization.*

UCG plans to appoint a Project Coordinator, who will be responsible for all aspects associated with the integration of the project-based learning and associated skills line into the curriculum. This person will be responsible for ensuring that the projects (Learning Communities, International Classroom and Language & Culture) at UCG are aligned and mutually re-inforcing, supporting the integration of project education in the UCG curriculum. For the IC project, UCG will invest (match) through this person at a cost of €75 per hour and in the senior tutor who will also coordinate the pilot.

Component	When	Project costs	UCG costs
Step 0 (zero): (Re)design of the project task for the 1 st year Block 2	June-August 2016		Academic coordinator project line etc. = 80 hrs at €75 = €6,000
Step 1a: Detailed description of diversity in the UCG 1 st year.	September 2016	Investigation: 24 hrs Writing: 16 hrs; Consultation/Revision: 8 hrs Total: 48 hrs at €75 = €3,600	
Step 1b: 'Master Class' with 2 nd year UCG students	September 2016	3 staff observers x 4 hrs plus 4 hrs total preparation with experts Total: 16 hrs at €75 €2,400	
Step 1c: Definition of key intended learning outcomes at course level (project education)	September–October 2016	Master Class (no cost). Plus 2 half-day sessions for 8 people (ESI price = €300 p.p.) = €2,400 Working out ILOs in group (2 days for 2 people) with Central support = 36 hrs at €75 = €2,700 €5,100	8 people x 12 hrs = 96 hrs at €75 €7,200
Step 2: Preparation of teachers /description of evidence	October 2016	Preparation of teachers/team: 8 hrs 2 sessions of 2 hrs with 3 teachers and 2 coordinators (project line/senior tutor) plus 4 hrs prep: 8 hrs x 3 = 24 hrs at €75 = €1,800	Preparation of teachers/team: 8 hrs 2 sessions of 2 hrs with 2 coordinators (project line/senior tutor) plus 4 hrs prep: 8 hrs x 2 = 16 hrs at €75 = €1,200
Step 3: Collection and analysis of evidence	November 2016- January 2017	Coordination of collection of evidence = 3 x 8hrs = 24 hrs Other teachers each look at 60 pieces of evidence and supply feedback at 30 minutes per piece.	Teacher ('teaching') time shared between 3 teachers for a group of 20 students, including giving feedback = 25 hrs per week

		Analysis of evidence = 90 hrs Review = 16 hrs Total hrs = 130 hrs at €75 = €9,750	for 10 weeks = 250 hrs at €75 = €18,750
Step 4: Evaluation/Dissemination	February- April 2017	Evaluation: 40 hrs Report-writing: 40 hrs Dissemination: 20 hrs Total hrs = 100 hrs at €75 = €7,500	
Step 5: Follow up and further proposal	May 2017 (deadline 1 st June 2017)	Preparing following proposal based on recommendations = 40 hrs at €75 = €3,000	
Project management and coordination	Throughout		100 hours at €75 = €7,500
	Total	€33,150	€40,650

Appendix 1: Learning Communities

In 2014 the University College Groningen opened its doors to the first cohort of students. From its conception, diverse learning communities have been at the heart of UCG. Consequently, UCG is a diverse faculty, both in terms of staff and students. Even now, with a relatively modest number of students, a great number of nationalities are represented. Additionally, UCG's profile is of small-scale, high-quality teaching, a residential college with a tightly-knit community with an emphasis on solving real world problems using an interdisciplinary approach. The learning outcomes of the Liberal Arts and Sciences BA reflect this, as they specify a variety of roles students must master: content expert, researcher, innovator, collaborator/communicator and academic integrator. At UCG, students learn to work together across disciplinary boundaries, ethnic or cultural differences, and various personality types in a project-based learning line. This project-based learning line extends throughout the first year, where it runs alongside a learning line devoted to general and disciplinary research methods and a variety of disciplinary modules. While students gain disciplinary knowledge in those modules, the emphasis in the projects and research methods learning lines in year one is on the development of a core catalogue of academic and professional skills.

In the coming academic year, 100 or more students are expected to start their BA in Liberal Arts and Sciences. Of these students, 40 to 50% is expected to be international. One of the major challenges will be to preserve the aspects of UCG that are essential to its profile, as well as to ensure that the project-based approach delivers both academic and professional skills. To ensure that 100 students do not simply drift into factions and master the essential skills of collaboration, teamwork and interdisciplinary understanding, we envisage an approach that is roughly modeled on Eric Mazur's strategy for the twin pillars of student ***activation and participation***.

Students will be assigned a number of attributes: age, gender, nationality e.g. and will fill out a questionnaire that determines their personality type and attitude towards group work. These traits will be used to create small diverse learning communities of roughly 20 students for each block, which will then be divided into project groups of 4-5 students. The division of students in diverse groups based on, among others, personality traits, is based on Eric Mazur's project work at Harvard, and the approach to smaller LCs that break into project groups is inspired by one that has already been explored at the Faculty of Spatial Sciences in a pilot project coordinated by Robin Neef (with whom contact has been established to learn from his experiences). Students will be clustered in these diverse groups to avoid factioning. Unlike at Spatial Sciences, however, each block the learning communities will be reshuffled using an algorithm, ensuring students meet (and cooperate with) most other students in their year. UCG is, in its essence, a broader learning community and this reshuffling is intended to promote coherence between all the students of the freshmen year, not just within a group of 20 students, which will strengthen and enliven the overall student community.

As project-based learning is at the heart of our profile, UCG is hiring a structural project coordinator (0.8FTE), who will advise on the project-line in close collaboration with the core academic staff, and, together with the learning line coordinator, will ensure alignment of the projects, the various block themes, the disciplinary modules and the methods learning line. This coordinator will be permanently funded from the faculty budget.

Financing is requested for the initial creation of a project framework and evaluation, as well as assisting in the initial creation of a general project brief that outlines and structures the goals of the development of academic skills and meeting the various LO roles throughout the year. Additionally, funding is requested for the creation of a handbook for project work and evaluation of the projects. This one-time investment is intended to facilitate the work of UCG's project expert, learning line coordinator and teaching staff, to build a lasting framework for the first year programme.

Appendix 2: Intended Learning Outcomes UCG

Please see pages 10-16

1. Intended learning outcomes

1.a Intended learning outcomes

The graduate:

Role I Content expert

Has broad understanding of the major insights of the academic disciplines, the world of arts, and the social and cultural characteristics of society; in particular related to Healthy Ageing, Energy and Sustainable of Society. Has more in depth understanding of one of the majors.

- 1.1 Has broad understanding of the fundamental paradigms, concepts and models of the academic disciplines within science and medical sciences, humanities and social sciences.
- 1.2 Has broad understanding of the most important art movements and the contribution of arts to the sciences.
- 1.3 Knows how - within science and medical sciences, humanities and social sciences - scholars go about acquiring knowledge and developing theories.
- 1.4 Has in depth understanding of paradigms, concepts and models used in one of the majors.
- 1.5 Has the knowledge, skills and academic attitude to apply these paradigms, concepts and models in one of the majors and thus is able to generate new understanding.
- 1.6 Integrates understanding of the different disciplines and arts and develops a balanced personal meta-perspective.
- 1.7 Uses both broad and more in depth understanding of the disciplines and arts to analyse societal issues in the fields of Healthy Ageing, Energy and Sustainable Society.

Role II Researcher

Has broad understanding of the fundamental research methods and techniques of the academic disciplines and artistic approaches, and designs and implements a scientific research project addressed to complex societal problems.

- 2.1 Has broad understanding of the fundamental research methods and techniques of the academic disciplines within science and medical sciences, humanities and social sciences.
- 2.2 Has broad understanding of artistic approaches in searching for creative and innovative solutions to complex societal problems.
- 2.3 Understands the complexities of integrating scientific and alternative artistic approaches.
- 2.4 Knows how the fundamental methods and techniques are carried out.
- 2.5 Has in depth understanding of the research methods and techniques used in one of the majors, applies these methods and techniques and thus is able to contribute to the development of new scientific knowledge.
- 2.6 Integrates understanding of research methods and techniques of the different disciplines and places this within the historical and philosophical context.
- 2.7 Places general societal issues in a scientific framework.
- 2.8 Integrates his/her broad understanding of academic disciplines and arts with interdisciplinary research questions and research projects which aim at innovative solutions to complex societal problems.
- 2.9 Designs and implements scientific research projects which aim at innovative solutions to complex societal problems by means of the most appropriate research methods and reports and discusses research outcomes.
- 2.10 Estimates the scientific surplus value of scientific research within one of the majors and evaluates scientific knowledge critically.

Role III Innovator

Recognizes societal issues in the field of Healthy Ageing, Energy and Sustainable Society and uses alternative solution methods, including artistic approaches, in creating innovative and effective solutions to complex societal problems. Shows the ability to convert innovative and creative ideas into reality and is prepared to assume leadership when solving complex societal issues.

- 3.1 Recognises societal issues in the field of Healthy Ageing, Energy and Sustainable Society and the contribution of science and medical science, humanities, social sciences and arts perspectives in generating solutions.
- 3.2 Combines existing knowledge with imagination and creativity.
- 3.3 Creates creative and innovative solutions to complex problems in societal issues, especially in the field of Healthy Ageing, Energy and Sustainable Society.
- 3.4 Shows the ability to envision the development of an idea in the future (both practical and ethical) and has the analytical skills to systematically develop the idea further.
- 3.5 Shows the drive, enthusiasm and motivation to develop an idea and is persistent, committed and willing to work hard to convert the idea into a reality.
- 3.6 Is aware of and can deal with the changeability of innovative processes through external circumstances or advanced insights.
- 3.7 Has a proper level of self-efficacy and self-motivation to work on an idea in cooperation with others.
- 3.8 Weighs up the risks inherent in the idea (calculative risk taking).
- 3.9 Shows both task-oriented and relationship-oriented leadership styles when collaborating with peers and is able to adapt his or her leadership style depending on peers and situational circumstances.

Role IV Collaborator and Communicator

Constructively collaborates with peers and experts and communicates ideas, visions and research results clearly with a broad audience.

- 4.1 Effectively collaborates with peer students and teaching staff.
- 4.2 Constructively works together with experts in academic disciplines in which the graduate is less experienced.
- 4.3 Engages effectively in oral, written and electronic communication with peers, experts and engaged laymen (written report, poster, presentation, debate, film, Facebook, Twitter).
- 4.4 Is engaged in the community and motivated to contribute to collective efforts of the community.
- 4.5 Communicates ideas, vision and research results clearly and discusses them openly.
- 4.6 Translates abstract concepts into meaningful language.
- 4.7 Exhibits the contribution of innovative solutions to society.

Role V Academic integrator

Reflects upon the persistence and bias of personal, societal, ethical and scientific perspectives and positions and upon personal behaviour and performance, both in a local and global context.

- 5.1 Is aware of the limitations of knowledge and in particular the intersubjective nature of social facts, including (inter)cultural influences.
- 5.2 Is able to evaluate and critically assess the complex and fundamental characteristics and limitations of fundamental theories and research methods within the chosen major.
- 5.3 Formulates which information is needed to make a thoroughly weighted decision, in particular considering ethical, legal and social implications, and effectively uses available information to formulate this decision.
- 5.4 Reflects upon his/her own perspectives and positions in a local and global context.

- 5.5 Reflects upon his/her personal performance (strengths and weaknesses), guides his/her own learning process aiming to engage in lifelong learning and makes deliberate choices for a future professional life.
- 5.6 Reflects upon the way he/she contributes to the community.

**1.b Domain specific framework of reference Liberal Arts and Sciences
2006**

Graduates can be expected to:

1. demonstrate interdisciplinary skills, i.e. can
 - a) evaluate which disciplines are involved in the solution of complex issues,
 - b) assess which research methods are most suitable in a particular situation,
 - c) integrate the contents and research methods from disciplines relevant to the course,
 - d) defend a well-considered viewpoint covering the relevant disciplines,
2. know about and understand the most prominent theories and methodological foundations of the chosen specialisation;
3. have fundamental experience with the methodology used by researchers in the chosen specialisation;
4. know which phenomena are being studied in the different disciplines which are treated in the course and which research methods and theories are used;
5. possess social and communication skills enabling them to work in a team,
6. rapidly learn the specialist vocabulary required for a new discipline,
7. 'translate' scientific terminology for laypersons;
8. possess general mental and reasoning skills that enable them to participate in scientific and public debates;
9. express themselves well verbally and in writing at the academic level;
10. work independently and purposefully, critically assess their own actions and can set goals and take decisions;
11. demonstrate the ability to reflect in ethical and social terms on their own position in society and chosen career.

1.c Intended learning outcomes compared to Dublin descriptors, the domain specific framework and LEAP

Intended learning outcomes <i>The LAS graduate...</i>	Domain specific framework of reference 2006: Graduates can be expected to:	Dublin Descriptors	LEAP Essential Learning Outcomes
Role I Content expert Has broad understanding of the major insights of the academic disciplines, the world of arts, and the social and cultural characteristics of society; in particular related to Healthy Ageing, Energy and Sustainable Society. Has more in depth understanding of one of the majors.	1. demonstrate interdisciplinary skills, i.e. can a) evaluate which disciplines are involved in the solution of complex issues c) integrate the contents and research methods from disciplines relevant to the course 2. know about and understand the most prominent theories and methodological foundations of the chosen specialisation 4. know which phenomena are being studied in the different disciplines which are treated in the course and which research methods and theories are used; 6. rapidly learn the specialist vocabulary required for a new discipline.	Knowledge & Understanding Have demonstrated knowledge and understanding in a field of study that builds upon and supersedes their general secondary education, and are typically at a level that, while supported by advanced textbooks, includes some aspects that will be informed by knowledge of the forefront of their field of study.	Knowledge of human cultures and the physical and natural world. Through study in the sciences and mathematics, social sciences, humanities, histories, languages and the arts. <i>Focused by engagement with big questions, both contemporary and enduring</i>
Role II Researcher Has broad understanding of the fundamental research methods and techniques of the academic disciplines and artistic approaches, and designs and implements scientific research project addressed to complex societal problems.	1. demonstrate interdisciplinary skills, i.e. can b) assess which research methods are most suitable in a particular situation c) integrate the contents and research methods from disciplines relevant to the course 2. know about and understand the most prominent theories and methodological foundations of the chosen specialisation; 3. have fundamental experience with the methodology used by researchers in the chosen specialisation; 4. know which phenomena are being studied in the different disciplines which are treated in the course and which research methods and theories are used;	Knowledge & Understanding Have demonstrated knowledge and understanding in a field of study that builds upon and supersedes their general secondary education, and are typically at a level that, while supported by advanced textbooks, includes some aspects that will be informed by knowledge of the forefront of their field of study.	Knowledge of human cultures and the physical and natural world. Through study in the sciences and mathematics, social sciences, humanities, histories, languages and the arts. <i>Focused by engagement with big questions, both contemporary and enduring</i> Intellectual and practical skills, including <ul style="list-style-type: none"> • Quantitative literacy • Information literacy <i>Practiced extensively, across the curriculum, in the context of progressively more challenging problems, projects and standards for performance.</i>

Intended learning outcomes <i>The LAS graduate...</i>	Domain specific framework of reference 2006 Graduates can be expected to:	Dublin Descriptors	LEAP Essential Learning Outcomes
Role III Innovator Recognizes societal issues in the field of Healthy Ageing, Energy and Sustainable Society and uses alternative solution methods, including artistic approaches, in creating innovative and effective solutions to complex societal problems. Shows the ability to convert innovative and creative ideas into reality and is prepared to assume leadership when solving complex societal issues.	1. demonstrate interdisciplinary skills, i.e. can a) evaluate which disciplines are involved in the solution of complex issues	Applying knowledge & understanding Can apply their knowledge and understanding in a manner that indicates a professional approach to their work or vocation, and have competences typically demonstrated through devising and sustaining arguments and solving problems within their field of study. Making judgements Have the ability to gather and interpret relevant data (usually within their field of study) to inform judgements that include reflection on relevant social, academic or ethical issues.	Intellectual and practical skills, including <ul style="list-style-type: none"> • Inquiry and analysis • Critical and creative thinking <i>Practiced extensively, across the curriculum, in the context of progressively more challenging problems, projects and standards for performance.</i> Integrative and applied learning, including <ul style="list-style-type: none"> • synthesis and advanced accomplishment across general and specialised studies. <i>Demonstrated through the application of knowledge, skills, and responsibilities to new settings and complex problems.</i>
Role IV Collaborator and Communicator Constructively collaborates with peers and experts and communicates ideas, visions and research results clearly with a broad audience.	1. demonstrate interdisciplinary skills, i.e. can d) defend a well-considered viewpoint covering the relevant disciplines 5. possess social and communication skills enabling them to work in a team 7. 'translate' scientific terminology for laypersons; 8. possess general mental and reasoning skills that enable them to participate in scientific and public debates; 9. express themselves well verbally and in writing at the academic level	Communication Can communicate information, ideas, problems and solutions to both specialist and non-specialist audiences.	Intellectual and practical skills, including <ul style="list-style-type: none"> • Written and oral communication • Teamwork and problem solving <i>Practiced extensively, across the curriculum, in the context of progressively more challenging problems, projects and standards for performance.</i>

<p>Role V Academic integrator Reflects upon the persistence and bias of personal, societal, ethical and scientific perspectives and positions and upon personal behaviour and performance, both in a local and global context.</p>	<p>10. work independently and purposefully, critically assess their own actions and can set goals and take decisions 11. demonstrate the ability to reflect in ethical and social terms on their own position in society and chosen career</p>	<p>Learning Skills Have developed those learning skills that are necessary for them to continue to undertake further study with a high degree of autonomy.</p>	<p>Personal and social responsibility, including</p> <ul style="list-style-type: none"> • Civic knowledge and engagement – local and global • Intercultural knowledge and competence • Ethical reasoning and action • Foundations and skills for lifelong learning <p><i>Anchored through active involvement with diverse communities and real-world challenges.</i></p>
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2. Correspondence between the intended learning outcomes and the programme

Year	Block	Course	1. Content expert	2. Researcher	3. Innovator	4. Collaborator and Communicator	5. Academic integrator
1	1	Exploring the Challenges of Modern Society	1, 2		9	1, 3	1, 5
	2	Exploring Science & Medical Sciences	1, 3	1, 4	9	1, 3	1, 3, 5
	3	Exploring Humanities	1, 2, 3	1, 4	9	1, 3	1, 5
	4	Exploring Social Sciences	1, 3	1, 4	9	1, 3	1, 3, 5
	1-4	IC2I: Creating Horizon	6, 7	2, 3	1, 2, 3, 4, 9	1, 3, 4, 5	1, 4, 5, 6
	1-4	Research & Methodology: Logic, Argumentation, Calculus and the Philosophy of Science and Method		1, 4, 7		1, 2, 3, 5, 6	1, 4
2	1-4	Major course	4, 5	5, 10		1, 2	2
	1-4	IC2I: Creating Scholarship	6, 7	6, 7, 8, 9	5, 6, 7, 9	1, 2, 4, 5	1, 3, 4, 5, 6
	1-4	Research & Methodology: Disciplinary Research & Methodology		5, 10		1, 2, 3, 5	2
3	1-4	Major courses	4, 5				1, 2
	1-4	Minor courses	1, 2, 3			1, 2	
	1-4	IC2I: Creating Leadership (BSc or BA thesis)	6,7	5, 8, 9	8, 9	5, 6, 7	3, 4, 5, 6