

Promising practice – RRI in curricula

Students learning about responsible research and innovation – through learning and research with civil society organisations

Name of university: Dublin Institute of Technology

Name of lecturer: David O'Connor

Course title / Academic department: Transport and Mobility module, MSc in Sustainable Development, MSc in Local Development and Innovation.

Course description:

Achieving sustainable settlement patterns and the promotion of healthy neighbourhoods is dependent on the provision of effective and accessible transport networks. Ecological responsibilities and the demands of an urbanising population have put pressure on policy makers to develop mobility solutions that are sustainable. This module explores the relationships between transportation, human settlement patterns and quality of life while delivering an understanding of the requirements of policy makers in dealing with contemporary transport challenges.

This module aims to equip students with an understanding of the complexities involved in developing transport solutions with respect to social, economic and environmental sustainability. The module introduces students to various policy tools and provides an overview of the obstacles and opportunities present in exercising such tools. Students are encouraged to think strategically and innovatively in developing dialogue around sustainable transport solutions. The module prepares the community and sustainable development professional to contribute effectively to the development of transport plans for healthy, connected and sustainable neighbourhoods. Students will discuss the role of communication and the interface between citizens, stakeholders and transport planners.

The DIT lecturer and students work with The Northside Partnership, based in the northside of Dublin city, on an ongoing project called the Healthy Communities project, initiated by the Partnership, which the DIT lecturer agreed to become involved in. The Healthy Communities project is about making the area more environmentally sustainable, and a healthy place to live, and also providing people from disadvantaged areas with access to services and to employment, to a range of needs. Every year at the start of each semester the lecturer and community partners meet and agree a relevant research assignment that the students will undertake. Students look at an aspect of transport policy and how that affects the local area, and how that might be bettered. Students engage with stakeholders, as part of the assignment, going to the local area and meeting community partners.

Learning outcomes of this course:

On completion of this module, the learner will be able to:

- Understand the environmental, social and economic imperatives in promoting sustainable transport.
- Evaluate frameworks for understanding sustainable transport policy.
- Consider the roles that governments, markets and communities play in encouraging sustainable transport policy.
- Critically appraise transport plans and their impact on communities and local economies.
- Understand the fundamentals of transport network design and the problem of conflict between modes.
- Learn about policy and design tools which can promote mode transfer and sustainable mobility.
- Contribute professionally to area plan and policy frameworks which have transport components.
- Contribute to the debate and discussion of transport policy-making.
- Apply a range of tools and techniques to real-world case studies.
- Develop a comprehensive strategy aimed at achieving sustainable transport solutions in a given area.

How student's learning is assessed:

Group projects and exams examine each of the learning outcomes above.
50:50 weighting.

RRI keys integrated in the course:

- Public engagement/ societal engagement
- Open access
- Gender and diversity
- Ethics
- Science education and outreach from higher education
- Governance
- Sustainability
- Social justice

RRI process requirements integrated in the course (anticipation, reflexivity, inclusion, mutual responsiveness, diversity, meaningful openness, adaptive change):

- Anticipation
- Reflexivity
- Inclusion
- Responsiveness

How students learn about dimensions of RRI through this course:

The students develop the RRI dimensions in a number of ways:

Public engagement – students are testing new ideas within a community environment, so they engage with stakeholders, as part of the assignment, going to the local area and meeting community partners.

Governance – the project is usually within a policy environment, so students look at an aspect of transport policy and how that affects the local area, and how that might be bettered. Governance is about who decides. If we're looking for a cycle track or a greenway, who decides, how do we make it happen? So if a cycle track is in a strategy for Dublin, and other areas are going ahead and building them, why not this area? What are the governance issues around that, who are the decision-makers, why is that happening?

Engagement – The students are engaging on this project with members of the community, and other stakeholders.

Gender equality – is covered on the module. It's a live issue particularly in relation to cycling – safety is a barrier to cycling for all groups, and there are other subtle barriers as well, in terms of image in the workplace, and that affects access, and people's rights to travel as they should be able to.

Sustainability and social justice – are some of the themes of the Northside Partnership's Healthy Communities project, which is about making the area more environmentally sustainable, and a healthy place to live, and also providing people from disadvantaged areas with access to services and to employment, to a range of needs. Sustainability and social justice are also a key theme on the Sustainable Development Masters (where this module sits) – one of the 3 pillars of sustainable transport is equitable transport. A theme emerging from the early projects on this module, where students were finding out how people moved around, was that people from particularly disadvantaged backgrounds had higher mobility needs, they have to access services. In order to do something they have to learn new skills, or take on extra jobs, so they actually have to get around a lot. It was very interesting, and the mobility services in the area are poor, although a lot of people don't have access to a car, with fuel poverty issues, so sustainability and social justice are direct issues, and themes in the project.

Anticipation and reflexivity – these things are important in the sustainable city, it's a policy-based approach. We're looking at policies for the city, policy objectives. The policy is to achieve a low-carbon future, which means reducing demand for carbon-based travel. Transport strategies usually have a 20- or 30-year time horizon.

Adaptiveness - is how you achieve your policy objective. On these Masters programmes, graduates are either going to be planners or working in local government or policy, so they have to establish policies and find ways to achieve those.

How students learn with civil society organisations (CSOs) through this course:

See overview above.

Impact of this engagement:

This ongoing research partnership has resulted in several collaborative research outputs, e.g.:

O'Connor, D., Borscheid, M., Reid, O. & Ni Lochlainn, M. (2015). Northside Partnership "Healthy Community" Pilot Area Walkability Audit. Proceedings of the Irish Transport Research Network, 2015.

O'Connor, D., Borscheid, M., Reid, O. An Assessment of Mobility among Key Disadvantaged Communities in North East Dublin, Proceedings of the AESOP-ACSP Joint Congress, Dublin 2013

O'Connor, D., Borscheid, M., Reid, O., ni Lochlainn, M. "Santry River Greenway Feasibility Appraisal", DIT and Northside Partnership Students Learning with Communities Project, 2016

O'Connor, D., Borscheid, M., Reid, O., Simon, W. "Promoting Cycling and Health in a Disadvantaged part of North East Dublin", Proceedings of Irish Transport Research Network 2016

O'Connor, D. "Malahide QBC Level of Service Appraisal", Proceedings of Irish Transport Research Network 2014 <http://arrow.dit.ie/beschspcon/6/>

In terms of social impact, sustainability and social justice is a key theme on the Sustainable Development Masters (where this module sits) – one of the 3 pillars of sustainable transport is equitable transport. By working with a socio-economically disadvantaged community, students learn directly from underserved citizens about the barriers to mobility which they face. Students learn that poor transport is a barrier to people improving their situation. They also learn about what steps are being taken by the Partnership to address this, in conjunction with their focus on labour market activation and social inclusion.

This ongoing research partnership is also very much about policy change. The Northside Partnership is using the research produced by the students to lobby for change regarding transport policy in this part of the city. As a direct result of the research collaboration, Dublin City Council have adopted the following statutory Planning Objective as part of the Dublin City Development Plan 2016-2022: "...to bring forward planning and design of the Santry River Greenway, incorporating strongly integrative social and community development initiatives." Dublin City Council have invited both DIT and Northside partnership to address two area Committees on the Santry River Greenway, and Northside Partnership are now in the early stages of assisting in the development of a city urban farm along the proposed Greenway and hope to work with DIT on this project.

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Information on the web:

<https://www.dit.ie/catalogue/Modules/Details/SSPL9072?tab=Overview>