

## **Dr Jennifer Carfrae – MSc Soils and Sustainability**

My name is Dr Jennifer Carfrae. I'm currently based up at Scotland's Rural College, and my research areas are very embedded within soil science, so, contaminated land, but I also do bits and pieces of work within integrated catchment management, for instance.

I am the Programme Director for the Soils and Sustainability Masters, which is a collaborative Masters between Edinburgh University and Scotland's Rural College.

The structure of the MSc with SRC in soils has three core modules. The first is Soil Protection and Management. That course is very much about the theory of soil protection. The second is Soil Science: Concept and Applications which is a second semester module. This one is very much laboratory based. The final is a module in Soil Ecology (**01.00**) and Taxonomy, which is a new module for us. This one was really designed because there is a huge gap in soil biology and experts within that field. Really, we're trying to address that, and give students the full package in terms of understanding soil science.

Soils and Sustainability, the Masters itself was very much designed to address some of the gaps within the science field in relation to soils. It very much relates to issues such as food security and environmental protection. From this perspective, we've designed it to be hands on. That's one of the key things that you will get from visiting us and undertaking this Masters. It's not just theory based. You get the theory but we take you into the field and we take you into the laboratory so you come away with skills such as the ability to conduct gas chromatography, to undertake PCRs, and to actually understand and interpret the output of these. So, it is fundamentally (**02.00**) designed to support people going into soil science careers, whether that be policy, consultancy or research. From that perspective, I would say that our lecturing style is very different as well, because we are largely based within the laboratory or the field so it tends to be more workshop or discursive based than pure lecturing.

My students come from a variety of backgrounds. I have students of a variety of different ages coming to this course, whether it's for a change in career or whether they actually now want to specialise further in their field. A number of the students have come in that have undertaken environmental based courses in the past and they're quite keen to move into the soil field because they appreciate very much where this gap is and the potential moving forward into a career. There are students coming in very interested in research and consultancy in particular. There's also then potential for students to come in and (**03.00**) expand their career if they're already in a soil science related field or indeed are land managers and want a better understanding of how to actually manage their own system.

I think my favourite thing about teaching Soils and Sustainability is the interaction with the students. Each of the classes is very individual, they tend to have discussions embedded within them, and quite frequently we can have quite heated debates, which is good fun. I can learn as much from the students as they can from me, because often they come from a related field where they've got a better understanding or they can give a slightly different perspective. For me, learning is something that is eternal.