



NUI Galway  
OÉ Gaillimh

School of Geography &  
Archaeology  
Scoil na Tíreolaíochta agus na  
Seandálaíochta

## **TI151: Principles of Physical Geography**

**Course Coordinator:** Dr. Kieran Hickey  
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**Teaching Staff:**  
Dr. Kieran Hickey  
Dr. John McDonagh  
Prof. Micheál Ó Cinnéide

### **Lecture Schedule: Time and location**

Tuesday: 5-6pm in Cairnes Theatre

Wednesday: 12-1pm in O'Flaherty Theatre **AND** 2-3pm in Cairnes Theatre

### **Introduction**

This course is designed to provide insight and understanding to the fundamental concepts and principles of physical geography as an academic discipline. In doing this, the course explores how the physical environment functions; how different environmental systems interact and how the physical environment impacts on human activities. The course explores the various components that make up these environmental systems, such as atmosphere, geosphere and the biosphere. In addition the course also provides understanding of how these fundamentals apply to Ireland and in so doing gives an insight into the richness of the physical geography of Ireland.

### **Assessment**

This course is assessed by examination only. Students will answer three questions in a two hour exam.

### **Attendance**

PLEASE NOTE THAT ATTENDANCE AT ALL LECTURES IS COMPULSORY AND LACK OF ATTENDANCE IS THE BIGGEST CAUSE OF FAILURE IN FIRST YEAR.

### **Overflow Lectures**

These will occur on Friday **ONLY** if the main lecture hall is full to capacity.

### **Course Readings**

There is one core textbook for this course:

Strahler A. and Strahler A. (2006) *Introducing Physical Geography*, 4<sup>th</sup> edition, Wiley.

Similar texts include:

Holden J. (2008) *An Introduction to Physical Geography and the Environment* 2<sup>nd</sup> edition, Pearson or

Smithson P. et al (2008) Fundamentals of the Physical Environment, 4<sup>th</sup> edition, Routledge.

The library holds 6 copies of the latest edition of the three texts identified above and some copies of previous editions. In addition each lecturer will provide additional readings where appropriate.

### Website and Blackboard

There is a website and blackboard site for this course which should be consulted on a weekly basis. The website of this course forms part of the main Geography website. The blackboard site occurs on the main university blackboard site. You will be automatically registered for this site.

### Lecture outline:

Week Number	Content	Lecturer
1 11th Jan	Introduction to Principles in Physical Geography  Atmosphere <ul style="list-style-type: none"> <li>• Composition of the atmosphere</li> <li>• Energy balance</li> </ul>	Dr. Kieran Hickey  Prof M. Ó Cinnéide
2 18 <sup>th</sup> Jan	<ul style="list-style-type: none"> <li>• Temperature</li> <li>• Atmospheric stability</li> <li>• Hydrological cycle</li> </ul>	Prof M. Ó Cinnéide
3 25 <sup>th</sup> Jan	<ul style="list-style-type: none"> <li>• Precipitation</li> <li>• Wind systems 1</li> <li>• Wind systems 2</li> </ul>	Prof M. Ó Cinnéide
4 1 <sup>st</sup> Feb	<b>Practicals</b> <b>(see Course Outline for Practice in Geography TI152)</b>	
5 8 <sup>th</sup> Feb	Geosphere <ul style="list-style-type: none"> <li>• Reading the Landscape</li> <li>• Earth Materials</li> <li>• Plate Tectonics 1</li> </ul>	Dr. J. McDonagh
6 15 <sup>th</sup> Feb	<ul style="list-style-type: none"> <li>• Plate Tectonics 2</li> <li>• Weathering and Mass Wasting 1</li> <li>• Weathering and Mass Wasting 2</li> </ul>	Dr. J. McDonagh
7 22 <sup>nd</sup> Feb	<ul style="list-style-type: none"> <li>• Glacial Environments 1</li> <li>• Glacial Environments 2</li> <li>• Coastal Environments</li> </ul>	Dr. J. McDonagh
8 1 <sup>st</sup> March	<b>Practicals</b> <b>(see Course Outline for Practice in Geography TI152)</b>	
9 8 <sup>th</sup> March	Biosphere <ul style="list-style-type: none"> <li>• Ecosystems</li> <li>• Energy and Matter Transformations</li> <li>• Ecological Needs and Competition</li> </ul>	Dr K. Hickey
10 15 <sup>th</sup> March	<ul style="list-style-type: none"> <li>• Historical</li> <li>• Biodiversity</li> <li>• Biomes</li> </ul>	Dr K. Hickey
11	<ul style="list-style-type: none"> <li>• The Nature of the Soil</li> </ul>	Dr K. Hickey

22 <sup>nd</sup> March	<ul style="list-style-type: none"><li>• Soil Development</li><li>• Irish Soils</li></ul>	
12 29 <sup>th</sup> March	<ul style="list-style-type: none"><li>• Systems Approach 1</li><li>• Systems Approach 2</li><li>• Course Summary &amp; Exam Information</li></ul>	Dr K. Hickey