

## Liverpool John Moores University

Title: DIVERSITY AND EVOLUTION  
Status: Definitive  
Code: **4012NATSCX** (101225)  
Version Start Date: 01-08-2012

Owning School/Faculty: Natural Sciences & Psychology  
Teaching School/Faculty: Natural Sciences & Psychology

Team	Leader
Graham Sherwood	Y

**Academic Level:** FHEQ4  
**Credit Value:** 12.00  
**Total Delivered Hours:** 3.00  
**Total Learning Hours:** 120  
**Private Study:** 117

### Delivery Options

Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	1.000
Off Site	1.000
Practical	1.000

**Grading Basis:** 40 %

### Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Essay	AS1	Phase tests	50.0	
Essay	AS2	Practical/field reports	50.0	

### Aims

*To provide and understanding of how life has evolved and to familiarize students with the diversity of living taxa.*

### Learning Outcomes

After completing the module the student should be able to:

- 1 recall the major events that have occurred during the evolution of life on Earth.
- 2 recognise the main patterns of diversity in the history of life
- 3 explain the processes of evolutionary change in living systems.
- 4 identify diagnostic features of major living and extinct taxa.

## Learning Outcomes of Assessments

The assessment item list is assessed via the learning outcomes listed:

essay	1	3
essay	2	4

## Outline Syllabus

*Origin of metazoans, late pre-Cambrian diversification. Garden of Ediacara, Burgess shale fauna. Colonisation of the land. Origins of vertebrates and history of vertebrate success. Origins and radiation of the reptiles. Origins and evolution of mammals. Origins and radiation of Carnivora. The fossil record of evolution in species. Macroevolution and patterns in diversity. The completeness of the fossil record. Mass extinction; process and events. The evolution of form.*

## Learning Activities

Lectures, practicals, field visits (Liverpool Museum and Chester Zoo). Practical work plays an important role in this module

## References

<b>Course Material</b>	Book
<b>Author</b>	Cowen, R.
<b>Publishing Year</b>	2005
<b>Title</b>	History of Life
<b>Subtitle</b>	
<b>Edition</b>	
<b>Publisher</b>	Blackwell Publishing
<b>ISBN</b>	2003027993

<b>Course Material</b>	Book
<b>Author</b>	Milsom, C. & Rigby, S.
<b>Publishing Year</b>	2004
<b>Title</b>	Fossils at a Glance
<b>Subtitle</b>	
<b>Edition</b>	

<b>Publisher</b>	Blackwell Science
<b>ISBN</b>	2002153751

<b>Course Material</b>	Book
<b>Author</b>	Turner, A. & Anton, M.
<b>Publishing Year</b>	1997
<b>Title</b>	Big cats and their fossil relatives: an illustrated guide to their evolution and natural history
<b>Subtitle</b>	
<b>Edition</b>	
<b>Publisher</b>	Columbia University Press
<b>ISBN</b>	02311102283

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### Notes

The module examines the major events and patterns of diversity in the history of life.