# Course specification

**University/Academy:** Damanhour  
**Faculty/Institute:** Science  
**Department** Botany

<table>
<thead>
<tr>
<th>1. course Data:</th>
<th>Course title: Ecology, flora and phytogeography</th>
<th>Academic year/level: 2010/2011 fourth year/ 2\textsuperscript{nd} term</th>
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<tr>
<td>Course code-BOT 404</td>
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<tr>
<td>Specialization: special botany-</td>
<td>No. of instructional units: lecture 3 practical -3</td>
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<th>2. course Aim</th>
<th>-- The aim for all awards in the course is to realize the principles of ecosystem development, desert ecosystem, understand the basic concepts of ecological succession, concept of climax and ecosystem equilibrium and stability.-------</th>
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<th>3. Intended learning outcome</th>
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| a) Knowledge and understanding | A1: Illustrate the ecosystem development.  
A2: Illustrate the ecological succession.  
A3 Describe the desert ecosystems and principles of ecological modelling.  
A4: List the means of phytogeography, limits of species distribution, geographic distribution, and endemism and bio chores.  
A5: Describe the idea of continental drift, species adaptation and gene flow.  
A6: Describe the phytogeography of Egypt. |
|-----------------------------|------------------|
| b) Intellectual skills | B1: Formulate the principles of ecological succession.  
B2: Conclude the concept of climax and ecosystem equilibrium.  
B3: Contrast between the means of phytogeography, limits of species distribution, geographic distribution, endemism, bio chores...  
B4: Formulate the principles of continental drift, species adaptation and gene flow.  
B5: Description Studies of phytogeography of Egypt. |
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<td>c) Professional skills</td>
<td>C1: Demonstrate the main features desert ecosystem.</td>
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C2: Demonstrate the main feature of ecological succession.
C3: Demonstrate the main features of principles of ecological modelling.
C3: Demonstrate the main feature of phytogeography of Egypt.

d) General skills

D1: Exchange ideas, principles and information by oral, written and visual means.
D2: Work effectively both in a team and independently.
D3: Use the information technology to gather information and right reports.

4. course content

- Introduction in ecology
- Ecosystem development
- Ecological succession
- Concepts of Stability stage
- Concepts of ecosystem
- Equilibrium stage
- Concepts of climax stage
- Principles of ecological modeling
- Desert ecosystems
- Scope of phytogeography
- Limits of species distribution
- Endemism
- Species adaptation and gene flow
- Past changes in the physical --geography of the earth
- Introduction in flora and phytogeography
- Vegetation of the world
- Distribution of natural vegetation
- The idea of continental drift
- Geographic distribution limitation by biotic interactions
- Phytogeography of Egypt cosmopolitanism
- Discontinuity

5. Teaching and learning methods

- Lectures and seminars.
- Lab work.
- Problems.
- Course work, essay.
### teaching and learning methods for students with special needs

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<td>6.</td>
<td>Student Assessment</td>
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<td>Written exam. Practical exam. Problems. Assignments.</td>
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#### a) Procedures used:
Data show, overhead projector, simple microscopes, compound light microscopes and some prepared slides for botany.

#### b) Schedule:
- Assessment 1: problems Week: 4-7
- Assessment 2: Mid term exam Week: 8
- Assessment 3: final practical exam Week 15
- Assessment 4: Final written exam Week: 16

#### c) Weighing of Assessment:
- Mid-Term Examination: 10
- Final-Term Examination: 150
- Practical Examination: 30
- Semester Work: 10
- Total: 200

### 7. List of Textbooks and References:
- Course Notes in:
  - Plant ecology
  - Flora of Egypt

#### a) Course Notes
- Course Notes in:
  - Plant ecology
  - Flora of Egypt

#### b) Required Books (Textbooks)

#### c) Recommended Books

#### d) Periodicals, web sites, etc
- Periodicals, Web Sites, etc
  - www.Plant ecology.com
  - www.Plant flora.com

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Course Instructor: 
Head of Department: 
Date: -----/-----/-----