Course specification

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

1. course Data:

<table>
<thead>
<tr>
<th>Course code: <strong>BOT (409)</strong></th>
<th>Course title: <strong>Ecology (2)</strong></th>
<th>Academic year/level: 2010/2011 fourth year/1st term</th>
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<tbody>
<tr>
<td>Specialization: special botany</td>
<td>No. of instructional units: lecture 2 practical 3</td>
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2. course Aim

-- The aim for all awards in the course is to realize the energy in ecological systems, understand the basic concepts of food chain, food webs, and biochemical cycles.

3. Intended learning outcome

a) Knowledge and understanding

A1: Describe the ecosystem functional structure.
A2: Illustrate energy in ecological ecosystem.
A3: Draw food chain and food webs
A4: Illustrate the biochemical cycles.
A5: describe the idea of population dynamics.
A6: Illustrate the rates and growth forms of population dynamics.

b) Intellectual skills

B1: analysis the functional structure of the ecosystem.
B2: Compare the energy sources of ecological systems.
B3: Conclude the concept of food chain and food webs.
B4: Compare between the general pattern and examples of population dynamics

c) Professional skills

C1: Demonstrate the main features food chain and food webs.
C2: Demonstrate the main feature of energy in ecological systems.
C3: Demonstrate the main features of biological cycles.
C3: Demonstrate the main feature of population
d) General skills

By the end of the course, students will be able to:

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 together.

4. course content

- Fundamental concepts of productivity
- Energy in ecological systems
- Fundamental concepts of energy
- Functional structure of the ecosystem
- General pattern and examples
- Food webs
- Biogeochemical cycles
- Trophic structure
- Food chains
- Growth forms
- Basic concepts of rates
- Population dynamics

5. Teaching and learning methods

Lectures and seminars.
Lab work.
Problems.
Course work, essay

6. teaching and learning methods for students with special needs

7. Student Assessment

Written exam.
Practical exam.
Problems.
Assignments.

a) Procedures used:

Data show, overhead projector, field trips
| 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  |
| Weighing of Assessment | - Mid-Term Examination: 10  
| Final-Term Examination: 100  
| Practical Examination: 30  
| Semester Work: 10  
| Total 150  |
| List of Textbooks and References |  |
| Course Notes | Course Notes in Plant ecology  
| Periodicals, Web Sites, etc  
| www.Plant ecology.com  |
| Required Books (Textbooks) |  |
| Recommended Books |  |
| Periodicals, web sites,…,etc | Periodicals, Web Sites, etc  
| www.Plant ecology.com  |

Course Instructor:  
Date:  
Head of Department:  