| <b>Module Code</b>                     | AV-4302                                      |  |  |  |
|--|--|--|--|--|
| <b>Module Title</b>                    | Wetland Ecology and Management               |  |  |  |
| Type of Module: Major Option / Breadth |  |  |  |  |
| Modular                                | Student Workload: 8hrs per week              |  |  |  |
| Credits: 4                             | Contact hours for timetabling: 2hrs per week |  |  |  |
| Prerequisite                           | None   |  |  |  |
| Antirequisite                          | None   |  |  |  |

## Aims/Objectives/Rationale:

This module is an interdisciplinary overview of physical, ecological and cultural aspects of wetlands, intended for students majoring in physical, life or social sciences with an interest in wetland environments and resources. The objective of this course is to provide students with a clear understanding of the principles and science of wetlands, and to acquaint them with fundamental scientific basis for their management based on solid knowledge and understanding of their ecological and socio-economic functions and processes.

## **Course Content:**

- o Distribution; Types and classification;
- o Functions, Attributes and Values;
- Ecohydrology of wetland systems;
- o Formation and development, abiotic and ecological processes;
- o Tropical and Temperate wetland: Characteristics and Properties;
- o Threats: Climate Change and human use, modification, exploitation;
- Wetland management, Conservation, Protection, and Restoration;
- o Opportunities and Challenges;
- o Field trips are conducted where possible;
- o International Convention and Treaties legal and political;
- Comparative overview of selected wetlands around the world.

| Assessment | Examination: | 50 % | Course Work:               | 50 % |
|------------|--------------|------|----------------------------|------|
|            | (2 hours)    |      | Essay: 10 %                |      |
|            |              |      | Tutorial Presentation 10 % |      |
|            |              |      | Fieldwork 20 %             |      |
|            |              |      |                            |      |

## **Textbook(s) References:**

- Bobbink, R., Beltman, B., Verhoeven, J.T.A., & Whigham, D.F. (Eds.). (2008) *Wetland: functioning, biodiversity conservation and restoration*. New York: Springer.
- Keddy, P.A. (2000). *Wetland ecology: principles and conservation*. Cambridge: Cambridge University Press.
- Mitsch, W.J., Gosselink, J.G., & Zhang, L., (2009) *Wetland Ecosystems*. Chichester, UK: John Wiley & Sons.
- Russo. R.E. (2008). Wetland: Ecology, Conservation and Restoration. Hauppage, NY: Nova Science.
- Wong, M.H. (2004) Wetland Ecosystems in Asia: Function and Management. Amsterdam: Elsevier Science.