Aquatic Ecology
School of Pure and Applied Natural Science
Kalmar University
SE-391 82 Kalmar
Sweden

New course

Wetlands & Streams
Ecological Applications

Internet-based course
Part-time, Spring 2008
15 credits

Course duration:
Week 04 - 23 2008, part time studies (50%)

Entrance requirements:
Biology 60 credits, including Ecology 7.5 credits and “Faunistics and Floristics” 7.5 credits.

Application code:
HK-22172

Meetings:
6 obligatory days (2-4 weekends)

Technical requirements:
Computer with internet connection

Examination:
Written examination, practical assignments

Questions?

Course Coordinator

Dr Börje Ekstam
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Applications!

Not later than **10 January 2008**

Swedish:
http://www.studera.nu

English:
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The course is arranged in cooperation with
IFM Biology, Linköping University

Structure, function and utilization of wetland ecosystems in catchment areas

Svenska:	avrinningsområde
Dansk:	afvandingsområde
Deutsch:	Gewässereinzugsgebiet
Español:	cuencas
Français:	bassin versant
Русский:	водосбор

Course content

Part 1 (6 credits):
Theory for practice

Part 2 (6 credits)
Excursions, laboratory- and modelling assignments

Part 3 (3 credits)
Project work
Investigations of an applied problem, a case study. Analysis and presentation of results and conclusions.

Theory for practice

Main topics:

- Wetland and streams as habitats
- Management of habitat functions
- Biogeochemical processes
- Design and management of constructed and restored wetlands

Modes of learning:

Web-lectures
Aims at presenting a structure in the knowledge, as well as to emphasize important messages.

They appear as audio-supported slide-presentations, streaming video or podcasts.

You need a fairly modern computer with a broad band connection

LSEM
Litterature seminar groups gather in virtual meeting rooms to discuss the literature, solve questions or find more in-depth explanations together.

We use Marratech for our seminars on the web.

Course litterature
Van der Valk, A. 2006. The Biology of freshwater wetlands. Oxford University Press, Oxford U.K.
ISBN 0-19-852540-0.
Scientific review papers.

Excursions and practical assignments

Excursion themes:

- Constructed wetlands for water pollution control
- Adaptive management of constructed wetlands
- Wetland birds
- Shallow lakes, zonations and successions
- Streams and riparian areas

Lab- and modelling assignments:

- Concentrations and flow - transport calculations
- Water level regulation and zonations in lake
- Tåkern
- Measuring area- and length using Image software
- Measuring gas emissions in wetlands
- Management of streams and riparian areas
- Dispersal, growth and hibernation of macrophytes
- Wetlands for nitrogen removal
- Designing wetlands for storm- and wastewater treatment