

Des Moines Area Community College

COURSE INFORMATION

Acronym/Number BIOL 172

Title Restoring Plant Communities

Credit breakout 3 2 2 0 0
(credit lecture lab practicum work experience)

PREREQUISITE(S):

BIOL 118, 119, 126, or permission of instructor

COURSE DESCRIPTION:

Introduction to restoration of native plant communities in Iowa. Identification of common native prairie, savanna, forest, and wetland communities – common plants and animals. Identification of invasive plants. Field techniques for reestablishment and maintenance of native plant communities. Supervised field work at actual restoration sites.

COURSE COMPETENCIES:

During this course, the student will be expected to:

1. Differentiate between woodland plant communities.
 - 1.1 Identify factors determining which woodland plant communities are found in certain locales.
 - 1.2 Identify characteristic plants of woodland plant communities.
 - 1.3 Identify animals characteristic of woodland plant communities.
 - 1.4 Identify human practices affecting woodland plant communities.
 - 1.5 Characterize woodland borders.
2. Identify strategies for restoration of woodland plant communities.
3. Differentiate between prairie plant communities.
 - 3.1 Identify factors determining which prairie plant communities are found in certain locales.
 - 3.2 Identify characteristic plants of prairie plant communities.
 - 3.3 Identify animals characteristic of prairie plant communities.
 - 3.4 Identify human practices affecting prairie plant communities.
 - 3.5 Identify food chains in prairie plant communities.
 - 3.6 Characterize prairie borders.
4. Identify the benefits of planting only with local ecotype seed.

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5. Identify strategies for restoration of prairie plant communities.
6. Differentiate between wetland plant communities.
 - 6.1 Identify factors determining which wetland plant communities are found in certain locales.
 - 6.2 Identify characteristic plants of wetland plant communities.
 - 6.3 Identify animals characteristic of wetland plant communities.
 - 6.4 Identify human practices affecting wetland plant communities.
 - 6.5 Identify food chains in wetland plant communities.
 - 6.6 Characterize wetland boarders.
7. Identify strategies for restoration wetland plant communities.
8. Identify strategies for establishing riparian buffers.
9. Assist in restoration of a native Iowa plant community.
 - 9.1 Use appropriate tools and techniques.
 - 9.2 Describe year-round timing for restoration activities.
 - 9.3 Evaluate choices for obtaining plant material.
10. Discuss ethical considerations in plant community restoration.

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INSTRUCTIONAL MATERIALS:

Textbook(s): For each text used in this course, identify the **minimum** chapters to be covered in this course.

A Practical Guide to Prairie Reconstruction, Carl Kurtz, University of Iowa Press, ISBN 0-87745-745x

Prairies, Forests and Wetlands: the Restoration of Natural Landscape Communities in Iowa, Janette Thompson, ISU Press, ISBN 0-87745-371-3

Continental Conservation: Scientific Foundations of Regional Reserve Networks, Michael E. Soule and John Terborgh, Island Press, Covelo, CA. ISBN 1-55963-698-x

Restoring the Tallgrass Prairie: An Illustrated Manual for Iowa and the upper Midwest, Shirley Shirley. 1994. University of Iowa Press, Iowa City. ISBN 0-87745-469-8

Study guide

Transparencies

Test banks

Computer hardware/software

Other (example: Laboratory equipment for biology/chemistry class)

Effective date: Aug. 2003

by: Barb Krumhart

Campus: A B C U N W OC

extension: 7249

Revision(s): _____

Competencies are reviewed annually.