

## Dakota College at Bottineau Course Syllabus

Course Prefix/Number/Title: **HORT 121 Introduction to Aquaponics**

Number of credits: 2

Course Description: Course provides an overview of aquaponics and its history, five different plant growth subsystems, fish and plant species, fish and plant health, and environment control methods. It will be a “modular course”. Modular is defined as a course that is shorter than a full semester term and can start and end on any week during a term. Course meets the credit hour requirement.

Pre-/Co-requisites: None

Course Objectives:

- Demonstrate a basic understanding of aquaponics.
- Identify and explain the difference between the five aquaponics systems.
- Explain the key factors of water quality for sustaining a favorable soilless and aquatic environment.
- Display proficiency in basic daily operations pertaining to the fish and plant health.
- Demonstrate awareness of recent trends and techniques used in aquaponics to make operations more productive and efficient.

Instructor: Keith Knudson

Office: 105 Simrall Blvd.; Bottineau, North Dakota 58318

Office Hours: TBD

Phone: 701-228-5489

Email: keith.knudson@dakotacollege.edu

Lecture/Lab Schedule: Modular --Time and Date TBD.

Textbook(s): Textbook is not required. But recommended resource is [Aquaponics Food Production](#) ISBN 978-0-9779696-1-6, 218 pages, 37 color photos and diagrams, 14 grayscale photos and diagrams, soft cover, released July, 2008.

SKU Number: AFPB

Course Requirements: This is a pass/fail course.

Tentative Course Outline:

- Introduction – Aquaculture, Hydroponics and Aquaponics
- History of Aquaponics
- The Process
- System Components
- System Designs
- Fish Selection and Plant Selection
- System Start Up, Operation and Maintenance
- Plant Health and Care
- Lighting
- Fish Health and Feeding

General Education Goals/Objectives: Must follow general suggested program outline.

Relationship to Campus Theme: This course is part of our Aquaponics Production and Management program and it addresses the campus theme of Nature, Technology and Beyond by learning about our natural resources and how best to utilize each resource. The latest technology is discussed and demonstrated.

Classroom Policies:

1. Cell phones, iPods and related technologies use are prohibited in the classroom unless otherwise instructed. It is recommended that you do not bring your internet/cellular device into the classroom if it interrupts you or your fellow student in the course that you have purchased, as you will not receive the value you should expect in order to excel in the area of study.
2. Food and beverages are permitted in accordance with IVN classroom policy.
3. Be respectful of other students, instructor and guests.

Student Email Policy:

Dakota College at Bottineau is increasingly dependent upon email as an official form of communication. A student's campus-assigned email address will be the only one recognized by the campus for official mailings. The liability for missing or not acting upon important information conveyed via campus email rests with the student.

**Academic Integrity:** All students are expected to excel to the best of their ability. Students must adhere to the highest standards of academic integrity. Dishonesty in the classroom or laboratory and with assignments, quizzes and exams is a serious offense and is subject to disciplinary action by the instructor and college administration. For more information, refer to the student handbook.

**Disabilities and Special Needs:** If you have a disability for which you are or may be requesting an accommodation, you are encouraged to contact your instructor and the Learning Center (701-228-5479) as early as possible during the beginning of the semester