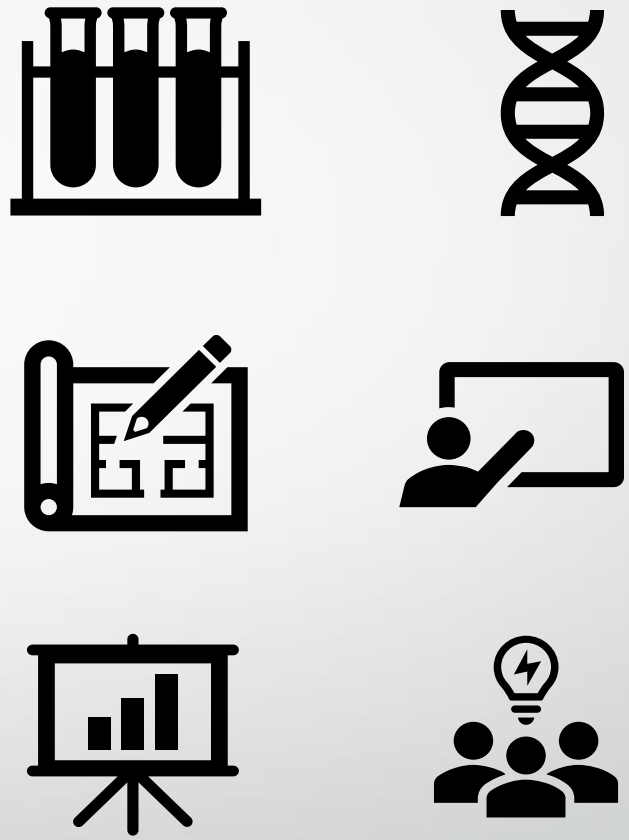
Bridgeport Aquaculture College Alliance (BACA)



What Is BACA?

- A Student-Centered Course Which Offers Students the Opportunity to Conduct:
- Independent Science/Engineering Research Project
- Self-Directed Research Timeline
- Rigorous Academic Requirements Through UCONN Course Work

Integrated Courses Offered Through BACA

Origins of Aquaculture (Full Year Honors)

Aquaculture Engineering (Full Year Honors)

UCONN ECE Introduction to Environmental Science (½ Year AP)

UCONN ECE Introduction to Oceanography (½ Year AP)

Advanced Statistics (Full Year Honors)

UCONN ECE Courses

Introduction to Environmental Science

- 3 Credits
- Official UCONN Transcript
- Fully Transferable Credit to Approved Institutions

Introduction to Oceanography (with Laboratory)

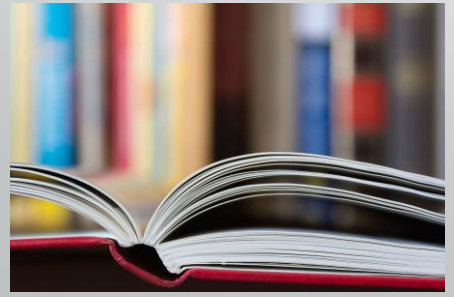
- 4 Credits
- Official UCONN Transcript
- Fully Transferable Credit to Approved Institutions

UCONN
UNIVERSITY OF CONNECTICUT

Typical Daily Schedule

ECE Instruction/Lab Days

- 8:00am – 9:00am
  - Interactive Lecture covering the required UCONN material
- 9:00am – 10:30am
  - Independent Research Time
- 10:30am
  - Dismal to Statistics Course



Laboratory Days

- 8:00am – 10:30am
  - Full Laboratory Days
  - Student Directed Activities (Teacher provides technical/safety advice)
  - Comprehensive Experimentation
  - Peer to Peer Consultation

Independent Research Project

- Original
- Creative
- Valid
- Feasible

Required Elements

- Project Proposal
  - Typically 15-30 Pages due at the start of the project to outline the project idea, protocols and timeframe
- Bi-Weekly Seminar
  - Oral presentations which are 15-30 minutes in length providing project updates
- Independent Work
  - Daily work on the project is required

Types of Research Projects

Life Science

Biological

Biochemistry

Medical Science

Physical Science

Chemistry

Engineering

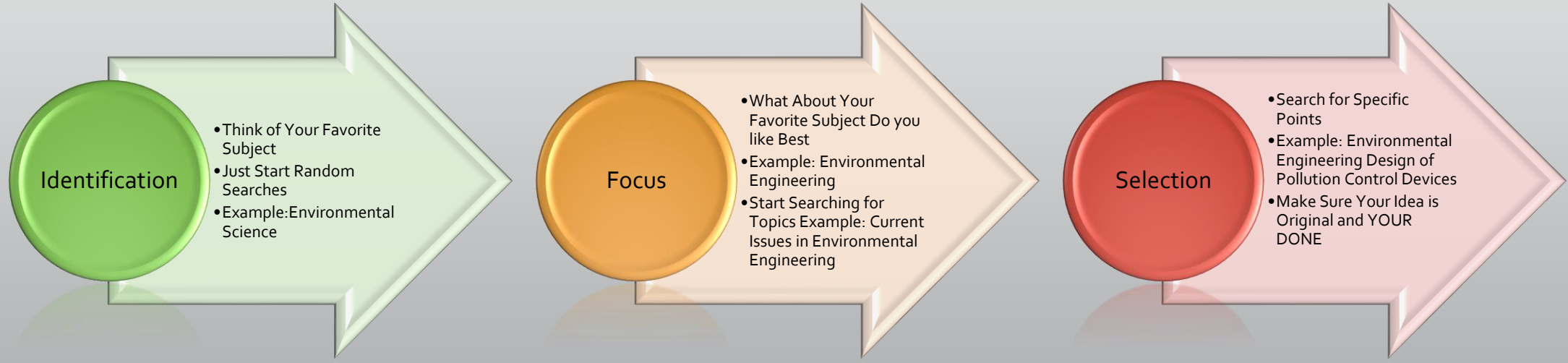
Environmental Science

Modeling

Data Mining

Programing

How to Pick a Project Topic (The Easy Way)



Examples of Recent Research Projects

- Utilizing a Graphene Oxide/Copper and Reflective Aluminum Design to Improve Heating/Cooling Efficiency
- Allelopathic Effects of Invasive Red Macroalga (Grateloupia turuturu) for the Mitigation of Harmful Algal Blooms
- Determining the Efficacy of Dexamethasone Infused Polypropylene Mesh to Prevent Post Surgical Abdominal Adhesion
- Utilization of Piezoelectric Elements for Power Generation on Wave-Impacted Shorelines within modifications of Breakwater Design

Science and Engineering Competitions

Local Fairs

- In House Competition
- City of Bridgeport Science Expo
- Lattimer STEM Challenge

State Fairs

- Connecticut Science and Engineering Fair
- Connecticut Junior Science and Humanities Symposium
- Connecticut AgriSicnece Fair
- Connecticut STEM Fair

National Fairs

- National Junior Science and Humanities Symposium
- National AgriScience Fair
- National Stockholm Junior Water Prize

International Fairs

- Genius International Olympiad
- Regeneron International Science and Engineering Fair

Any Questions??

Email-

kshadle@bridgeportedu.net

Microsoft Teams Page

Phone- (203)275-2926