

Teachers on the Estuary: A Field Course on Virginia's Coastal Ecosystems

VIMS Eastern Shore Lab, Wachapreague VA
June 21 – 25, 2020



Proposed Daily Agenda

Participants arrive on Sunday, June 21, 2020. Field course activities will start on Monday, June 22 and run until ~noon on Thursday, June 25. There will be approximately 25 hours of instructional time in classroom, lab, and field. Field activities may be adjusted to accommodate tides, weather and other scheduling factors.

Sun, June 21 – Participants Arrive by 9 pm

DAY 1, Mon, June 22: Orientation & Content Intro Day

Orientation; Introduction to concepts, methods, products

Topics covered: Course objectives, Virginia coastal ecosystems, field sampling methods; Introduction to MWEE definition, expected course outcomes & teacher assignments, MWEE preparatory activities.

- 7:00 – 8:30 am Breakfast
- 9:00 Welcome, Introductions, lab guidelines review – Dorm
- 9:30 Workshop goals, agenda & resources – Seaside Hall
Introduction to Meaningful Watershed Educational Experiences (MWEE); field data collection methods review & practice; concepts & habitat briefing
- 12:00 pm Lunch - Dorm
- 1:00 MWEE #1 preparatory activities – Seaside Hall: Biodiversity, estuary education, data
- 4:30 Class dismissed; free time
- 5:30 Dinner
- 6:30 Free time
- 10:00 pm Quiet time

Day 2, Tue, June 25: Field Studies - Ocean side Field Day, Research Topic, Classroom Resources/Activities

Topics covered: coastal ecology; biodiversity and ecology of tidal creek and mud flat; human interactions with environment and applications of science; MWEE #2 preparatory activities.

Skills practiced: trawl and transect sampling; field identifications, observing and measuring abiotic parameters; responsible handling of samples; data recording; data processing.

- 6:00 – 7:00 am Breakfast
- 7:30 VIMS Dock, load vessels, depart for Nickawampus/Finney Creek
- 8:00 Arrive Nickawampus/Finney Creek for: water quality, sediments, trawl sampling
Tidal creek environment & biodiversity
- 8:45 Relocate to Worm Flat
- 9:00 Worm Flat: water quality, invertebrate biodiversity transect sampling
- 9:45 Relocate to Cedar Island
- 10:15 Arrive Cedar Island: water quality, plant biodiversity transect sampling
- 11:00 Beachcombing, seining
- 11:30 Depart for Lab
- 12:00 pm Arrive back at Lab: secure samples, clean and stow gear – Seawater Lab & Boat Basin
Process and analyze field samples; collate data - Seawater Lab
- 12:15 Lunch at dorm
- 1:15 Reflection activities: reviewing & graphing data; classroom activities; resource sharing; mural. CBNERR Intern project

3:15	Break
3:30	MWEE #2 preparatory activities: SAV & climate change; lesson/activity demos
4:30	Implementation plan work
5:30	Grill night dinner at the dorm
6:30	Free time
10:00 pm	Quiet time

Day 3, Wed, June 26: Field Studies - Bay Side Field Day, Research Topics & Classroom Resources/Activities

Topics covered: biodiversity, ecology and water quality of submerged aquatic vegetation (SAV), saltmarsh & pond; human interactions with environment; reflection activities; resource sharing.
Skills practiced: trawl sampling; field identifications; observing and measuring abiotic parameters; responsible handling of samples; data recording, data processing.

6:00 - 7:15 am	Breakfast
7:30	Load vessels, depart ESL dock for Harborton
8:00	Arrive Harborton, load vessels, depart for Finney-Scarborough Channel
8:30	Scarborough-Finney Island Channel water quality & trawl SAV bed
10:00	Travel to Fisherman's Rest
10:15	Ashore for salt marsh observations, water quality, seining
11:00	Depart Fisherman's Rest, plankton tow en route
11:30	Arrive back at Harborton boat ramp, unload vessels, drive back to ESL
12:00 pm	Arrive at ESL, clean and stow gear, secure samples, clean up – Seawater Lab, Boat Basin
12:15 pm	Lunch at Dorm
1:15	Reflection activities: data sharing, graphing; action projects; activity demonstrations; resource sharing
3:00	Break
3:15	Action/Stewardship project discussion & resources
3:40	Lab: observe/analyze invertebrates under microscope; ESL tour
4:40	Implementation plan work; mural
5:40	Dinner on your own; free time
7:00	Wachapreague Carnival (optional)
10:00 pm	Quiet time

Day 4, Thu, June 27: Reflection, Classroom Applications and Follow-through planning

Topics covered: Summary of coastal ecosystems studied, abiotic and biotic observations, causes and impacts of coastal change; applications of research-based lessons in the science curriculum, teacher plans for implementation.

Skilled learned: Methods and tools for collecting data on coastal ecosystems; data recording, management and analysis, application to classroom.

6:00 – 9:00 am	Breakfast, pack personal gear, clean dorm
9:00	Implementation plan work
9:30	Implementation plan sharing; discussion/idea sharing
11:00	Follow-up communications
11:15	Post-test, course evaluation, certificates
	Team reports – aspects of coastal change
	Individual or School action plan/application reports
	Further thoughts on classroom integration
11:00	Ideas for follow-through communications and cohort sharing
	Post-test, evaluation and graduation
11:45	Finish pack, clean & head for home or to your next adventure!

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