

Day 1	Thursday, March 17, 2022
11:00am – 12:00pm	<p>Live online via Zoom - link provided by instructor via email</p> <ul style="list-style-type: none"> • Welcome to FMNP course • Introductions, Pre-test, Icebreaker by Ken Gioeli (30 min) • Getting comfortable with Zoom technology (20 min) • Course manual will be emailed to students. • Present instructions for “on-your-own” assignments (10 min)
ON YOUR OWN (60 min)	<p>Video: Southwest Florida’s Mangrove Coast Link: https://www.pbs.org/video/mangrove-coast-awzgsj/ Please complete this assignment before class on Day 2. Answer these questions while watching the video:</p> <ul style="list-style-type: none"> • What natural features reduced coastal flooding on Marco Island when Hurricane Irma hit in Sept 5, 2017? 1:35 • What is an estuary? 4:44 • Why did the fisheries in Tampa Bay collapse? 22:21 • Describe the stewardship program designed to manage land resources in Rookery Bay? 44:45
ON YOUR OWN (120 min)	<p>Begin your course data sheet. Using the internet or other resources, search for sites for part 1 and 2 below:</p> <p>Part 1: Instructions to complete Part 1 on the data sheet: Search for 1 publicly accessible coastal shoreline restoration project near you. https://floridalivingshorelines.com/ Prepare to make a site visit to this site. Much of this information is available virtually. Some information won’t be available to you without special equipment such as salinity meters, pH, dissolved oxygen. There may be other resources to help you find local living shoreline locations. Your closest Florida Sea Grant Extension Agent likely knows of locations not found on the site above. A directory of these extension agents can be found here. https://seagrant.noaa.gov/professionals. Try to find a site that shows variety of restoration activities. For example, look for a site that has restoration of salt marshes, mangroves, oyster beds, and general living shorelines. Its ok if you cannot find variety. Contact the project manager identified on the living shorelines website. Please note that people leave positions so assume that not everyone will be available. Determine why they are conducting the restoration activities. What are the problems they were trying to solve? Were they successful? Refer to course supplemental resources to determine if they were successful. Refer to supplemental materials on our Shared Google Drive.</p> <p>Part 2: Instructions to complete Part 2 on the data sheet: Search for two publicly accessible coastal shorelines near you in need of restoration. Identify the sites using online resources such as satellite maps, websites, etc. Label them with an appropriate name and describe the sites in your data sheet. What type of restoration is needed here and why? How would the sites benefit from restoration such as living shorelines, mangroves, salt marshes, oyster bed restoration or a combined approach?</p> <p>The data sheet will be completed and turned in before the end of the course.</p>

Day 2	Friday, March 18, 2022
9 am – 12:15 pm	<p>Live online via Zoom - link provided by instructor via email</p> <ul style="list-style-type: none"> • Breakout Rooms: Students debrief their on-your-own video assignment from previous session (30 min) • Presentation: Oyster Reef Restoration by Dr. Vincent Encomio (60 min) • Break (15 min) • Artificial/alternative reef materials (60 min) *You would discuss those meshes and other products used or perhaps show videos. • UF Oyster Restoration Discussion and Short Video Presentation (20 min) - https://www.youtube.com/watch?v=vKrfez3TU6c • Discuss your journal project assignments (10 min).
ON YOUR OWN (60 min)	Design their own oyster reef modules. This can be drawn on paper or some other suitable medium. Research all the different alternatives used for oyster reefs. Create a pros and cons list. This will be discussed in class.
ON YOUR OWN Video Assignment (60 minutes)	<p>Planting Considerations for Living Shorelines https://www.youtube.com/watch?v=2jf6w8DOzOs&t=1s</p> <p>PBS News Hour - Living Shorelines https://www.youtube.com/watch?v=DwSrTICsG2I&t=35s</p> <p>SCORE - South Carolina Oyster Restoration & Enhancement Program https://www.youtube.com/watch?v=qEGO-EuNN2w</p> <p>FL Aquatalk - Oyster Gardening https://www.youtube.com/watch?v=Yko-ZeJ87tY</p> <p>Oyster and Clam Farming on FL's Forgotten Coast https://www.youtube.com/watch?v=6bodGgN4eRA</p>
Day 3	Thursday, March 24, 2022
9 am – 12:15 pm	<p>Live online via Zoom - link provided by instructor via email</p> <ul style="list-style-type: none"> • Discussion of on your own oyster reef assignment (40 min) • Presentation on Salt Marsh Restoration by Carrie Stevenson, UF/IFAS Escambia County Sustainability Extension Agent (50 min) • Break (15 min) • Presentation on Mangrove Restoration by Dr. Vincent Encomio (50 min) • Break class into four discussion groups: two Salt Marsh groups and two Mangrove Restoration group. Review course supplemental materials and determine which publications would best enable your group to determine valuation of the habitat type you are studying. Discuss how you are going to assign value to these habitats in your journal. (40 min)
ON YOUR OWN (120 minutes)	How do experts measure success of coastal shoreline restoration? Using the course materials, determine how you could measure success at the three self-directed field trip locations you visited. Also, decide if you want to use the pre-existing course data sheet or develop a different data sheet. Create your own data sheet

Day 4	Friday March 25, 2022
9 am – 11:00 am	<p>Live online via Zoom - link provided by instructor via email</p> <ul style="list-style-type: none"> • Presentation on Living Shorelines by Ken Gioeli (60 min) • Course discussion: How do experts measure success? Were the sites you visited successful restoration sites? (60 min)
Day 5	Friday April 8, 2022
9 am – 10 am	<ul style="list-style-type: none"> • Final data sheet submission • End of course paperwork/evaluations • Final course discussion • Graduation
ON YOUR OWN FIELD TRIP (120 min)	<p>Field trip to site #1. Include this in your data sheet. Earlier in this course, you were asked to search out three coastal shoreline restoration sites. One site was a restored site and two in need of restoration.</p> <p>Visit the established coastal shoreline restoration site you identified earlier in this course. Determine the level of success using guidelines provided by course instructors. Use the course data sheet to help guide your observations. Do your best to complete the data sheet but keep parts blank if you don't have the testing equipment needed. What restoration practices were done at Site 1? Was it successful? Refer to supplemental materials on our Shared Google Drive. It is strongly recommended that you use satellite imagery before going out looking for your locations. Google Earth, iPhone maps, Google maps have satellite views to help you identify sites that might be under water when you get there. Also, keep in mind your tides. If you are looking for underwater oyster bed restoration sites, aim for a visit at low tide. If you are looking for salt marshes, mangroves or other land-based restoration sites, it might be important to plan your visit based on tides.</p>
ON YOUR OWN FIELD TRIP (120 min)	<p>Field trip to site #2. Include observations in your data sheet. Earlier in this course, you were asked to search out two coastal shoreline restoration sites in need of coastal shoreline restoration.</p> <p>Visit the coastal shoreline site #2 in need of restoration. Include your site observations in your data sheet. Use the course data sheet to help guide your observations. What restoration practices can be done at this site? How are you going to determine success? Refer to supplemental materials on our Shared Google Drive. It is strongly recommended that you use satellite imagery before going out looking for your locations. Google Earth, iPhone maps, Google maps have satellite views to help you identify sites that might be under water when you get there. Also, keep in mind your tides. If you are looking for underwater oyster bed restoration sites, aim for a visit at low tide. If you are looking for salt marshes, mangroves or other land-based restoration sites, it might be important to plan your visit based on tides. Include a satellite photo or line drawing of the site and diagram the practices that will be used in this hypothetical restoration project.</p>

<p>ON YOUR OWN FIELD TRIP (120 min)</p>	<p>Field trip to site #3. Include observations in your data sheet. Earlier in this course, you were asked to search out two coastal shoreline restoration sites in need of coastal shoreline restoration.</p> <p>Visit the coastal shoreline site #3 in need of restoration. Include your site observations in your data sheet. Use the course data sheet to help guide your observations. What restoration practices can be done at this site? How are you going to determine success? Refer to supplemental materials on our Shared Google Drive. It is strongly recommended that you use satellite imagery before going out looking for your locations. Google Earth, iPhone maps, Google maps have satellite views to help you identify sites that might be under water when you get there. Also, keep in mind your tides. If you are looking for underwater oyster bed restoration sites, aim for a visit at low tide. If you are looking for salt marshes, mangroves or other land-based restoration sites, it might be important to plan your visit based on tides. Include a satellite photo or line drawing of the site and diagram the practices that will be used in this hypothetical restoration project.</p>
<p>ON YOUR OWN ASSIGNMENT (60 min)</p>	<p>Complete data sheets and send to Ken Gioeli (ktgioeli@ufl.edu) by Thursday, April 7, 2022 at 7 PM.</p>