



NOAA-Center for Coastal and Marine Ecosystems (NOAA-CCME)  
**Center Wide Core Competency (CWCC) course:**  
*Multidisciplinary Techniques in Coastal and Marine Ecosystems*  
**May 19-24, 2019**



**COURSE SCHEDULE – ON-SITE COMPONENT**

**SUNDAY, MAY 19, 2019** -TRAVEL DAY

**11:00 am – 3:30 pm** – All students arrive at the Schlitterbahn South Padre Island. Travel arrangements made by your institution from the **Brownsville International Airport (BRO)** preferred airport.

Hotel Venue:  
Schlitterbahn Resort South Padre Island  
100 Padre Blvd.,  
South Padre Island, TX., 78597

**2:00 – 4:00 p.m.** – Registration reception:  
All students check in to Schlitterbahn Conference Room no later than 3:45 p.m. (UTRGV CCME Student Coordinator).

*Note: Boating Safety Course Certification must be uploaded on the Blackboard site and bring a copy of the certification for check-in*

**5:00 – 7:00 p.m.** – R/V Ridley social cruise (students only, Location: TIFT Dock, 500 Southshore Avenue, Port Isabel, TX). Vans will pick up students from the hotel.

**7:00 – 9:00 p.m.** – Dinner on your own and Gear up for next day

---



**MONDAY, MAY 20, 2019 (Day 1)**

**6:00 – 7:00 a.m.** – Breakfast (hotel)

**7:30 – 8:30 a.m.** – Travel to UTRGV Brownsville campus (Location: MAIN #63- Salon Cassia **Room 2.402**)

**8:30 – 8:45 a.m.** – Welcome & introductions: Dr. Parwinder Grewal, UTRGV Executive Vice President, Office of the Executive Vice President for Research, Graduate Studies & New Program Development

**8:45- 9:15 a.m.** - CWCC course review:

Structure, expectations, and schedule; Overview of Problem-Based Learning Activity (PBL) and group project team assignments PBL activity: Planning the Second Causeway for South Padre Island, Texas (David Hicks, Bernadette Kelley, Focal Area Leads-present).

**9:15am-12:00 pm** – GIS applications (Location: Brownsville, Main # 63 Room 2.518 computer lab) R. Kulawardhana

**12:00 - 1:00 p.m.** - Box Lunch (Location: Main#63 Salon Cassia-Patio)

**1:00 - 1:45 p.m.** - Continue GIS activity (R. Kulawardhana) (Location: Brownsville, Main # 63 Room 2.518 computer lab)

**1:45 - 2:00 p.m.** - Coastal Habitat Restoration (Location: Brownsville, Main # 63 Room 2.518 computer lab)

Speaker: Jonathan Moczygema- Wildlife Biologist, U.S. Fish & Wildlife Service

Introduction to the Laguna Atascosa Wildlife Refuge history and quick management practices.

**2:00- 2:15 p.m.-** Prepare to depart to Bahia Grande Restoration Site

**2:15- 2:50 p.m.-** Travel to Bahia Grande

**2:50- 3:30 p.m.-** Bahia Grande

**3:30- 4:00 p.m.-** Travel from Bahia Grande to Laguna Atascosa National Wildlife Refuge

**4:00- 4:45 p.m.-** Laguna Atascosa National Wildlife Refuge

**4:45- 5:40 p.m.-** Prepare to depart; travel to Coastal Studies Lab (Location: CSL Room 110)



**6:00- 7:00 p.m.** - Guest Speaker: Community Resiliency Activity (Texas Sea Grant: Kate de Gennaro)  
<http://texasseagrant.org/staff/kate-de-gennaro/>

**7:00 – 8:00 p.m.**- Dinner (Location: UTRGV CSL room 110 South Padre Island)

---

## **TUESDAY, MAY 21, 2019 (Day 2) Laguna Madre sampling**

Students will explore different marsh and aquatic coastal habitats (i.e. wetland/beach). Brief review and discussion of field activities after completion of field trip.

Field activities will include the following: notebook keeping, environmental parameter measurements, and site characterization. Students will learn how to keep a field notebook (date, local time, universal standard time, station, latitude, longitude, weather, water conditions, etc.).

**6:00 – 7:30 a.m.** – Breakfast (hotel)

**7:30 a.m. – 8:00 a.m.** - **Group 1:** Pick up and transport to Children’s Beach. **Group 2:** pick up and transport to TIFT dock 500 Southshore avenue, Port Isabel, TX

**8:00 – 11:30 a.m.**- Group activity

1. Land-based Activities: **Group 1:** Location: SPI- Children's Beach

\*Group 1 (23 students) will further divide into two groups:

A. Spatial Activities - (11 students) (2 hrs.)

- GIS- vegetation polygons- Coastal vegetation ID
- Drone data collection – C. Garza
- USV-Hicks (send data example to Steve M.)

B. Benthic community sampling- (12 students) (2 hrs.)

- Sarah Krejci-BCU Faculty and Catherine Eckert- UTRGV

2. Ridley- Laguna Madre Activities: **Group 2:**

\*Group 2 (23 students) will further divide into two groups

**11:30- 12:00 p.m.**- Pick up students from TIFT dock/ (Location for land-based activity) and transport to Sandpiper pavilion for lunch.

**12:00 - 1:00 p.m.** - Lunch Location: SPI-sandpiper pavilion



**1:00- 1:30 p.m.-** Pick up students from Sandpiper pavilion and transport to TIFT dock/  
Children's Beach.

**1:30 – 5:00 p.m.-** Group Activity Continued

**1. Ridley- Laguna Madre Activities: Group 1:**

**A. Water Quality- J. Cho and Brent Thoma (11 students)**

- water depth
- Secchi depth
- portable instruments: temperature, conductivity, salinity, chlorophyll and dissolved oxygen, PAR (Licor)
- Water-borne pathogen assessment (Richard Long) (cooler)

**B. Community Assessment- Carlos Cintra and Stefany Salinas (12 students) (collect large grabber/ large zip lock bags**

- Benthic community sampling (ponar grab)
- Plankton net (size: 10 micron)
- Fish species assessment (trawl)

**2. Group 2- Land-based activity Location: SPI- Children's Beach**

\*Group 2 (23 students) will further divide into two groups

**5:00 – 5:30 p.m.-** Pick up students from TIFT dock and transport to hotel.

**5:30 – 7:00 pm –** Dinner on your own (Location: South Padre Island, local transportation)

**7:00 – 9:00 p.m. –** Problem-Based Learning Activity (PBL) Discussion and Activities within student groups. (O. Temby/R. McLaughlin).

Assigned faculty will review/discuss each of the CCME focus areas and application of focus areas to the PBL. Review and discussion of PBL problem, stakeholder groups, and process. Discussion and activities concerning stakeholder processes. Individual stakeholder group meetings and discussions.

---

**WEDNESDAY, MAY 22, 2019 (Day 3)**



**7:00 – 8:00 a.m.** – Breakfast (hotel)

**8:00 – 12:00 p.m.** - Laboratory sample processing (Location: Port Isabel-Wet Lab)

- A. Benthic core sample processing (two groups)
- B. Water-borne pathogens (R. Long/ UTRGV Eberto Presas)

**12:00 – 1:00 p.m.** – Brown Bag Seminar (Location: Port Isabel- Fabrication Lab)

Guest Speaker: Pete Alvarez, TxDOT Pharr District Engineer

<https://www.txdot.gov/inside-txdot/district/pharr/bio.html>

**1:00 - 4:00 p.m.** – Data processing and analysis: (Location: Port Isabel-Fabrication Lab)

Steve Morey - R using with collected data (Tidal data? Time-series analysis)

Paul Montagna – Excel modeling (Nutrients/Zooplankton/Phytoplankton;  
NZIP)

**4:00- 5:00 p.m.** GIS- Habitat Classification Demonstration (Location: Port Isabel-Fabrication Lab) (R. Kulawardhana)

**5:00-5:30 p.m.** - Break

**5:30- 6:30 p.m.** – What Students Should Know about Writing and Publishing- Paul Montagna (Location: Port Isabel-Fabrication Lab)

One of the most difficult things students face is getting it all down on paper and eventually into print. This does get easier over time if you gain experience. So, why not take a short cut and learn from a seasoned pro, who has already made all the mistakes and climbed that steep learning curve. The topics covered include:

- 1) getting organized and basic writing principles
- 2) tips for preparing figures and tables
- 3) advanced power-user techniques for using Microsoft Word
- 4) turning a thesis or dissertation into a publishable unit
- 5) navigating the science journal landscape and submission process.

**6:30 – 7:30 p.m.** - Dinner (Location: UTRGV CSL room 110 South Padre Island)

**7:30 – 8:30 p.m.** - PBL Group project:

Students will work on their presentations.

---



**THURSDAY, MAY 23, 2019 (Day 4)**

**7:00 – 8:00 a.m.** – Breakfast (hotel)

**8:00 – 12:00 p.m.** – Ecosystem valuation activity (O. Temby) (Location: SPI- UTRGV CSL Room 110)

**12:00 – 1:00 p.m.** – Lunch (Location: SPI- UTRGV CSL Room 110)

**1:00 p.m. - 3:00 p.m.** - Preparation for final townhall meeting/presentations. (Location: SPI- UTRGV CSL)

Students begin preparation for final session: Discuss with Owen, David Y, and McLaughlin stakeholder groups [governmental, environmental NGOs, citizens, business].

**3:15 pm- 6:30 pm-** Townhall meeting presentations (Location: SPI- UTRGV CSL Room 110)

Town hall stakeholder final session and final round table with all stakeholder groups to identify path toward resolution. PBL review and discussion of collaborative and stakeholder processes.

**6:30 – 8:00 p.m.** – Dinner (Location: Schlitterbahn- Sea4Ever- top floor open air venue -Luau dinner)

**8:00 – 8:30 p.m.** – PBL performance and completion: Review, discussion, and evaluation of CWCC and discussion of course assessments.

Students and faculty should pack and prepare for early departure on Friday, May 24, 2019.

---

**FRIDAY, MAY 24, 2019-** TRAVEL DAY

**7:00 – 8:00 a.m.** – Breakfast (on your own)

**11:00 a.m.** – Check out and preparation for departure. All students depart from the hotel venue no later than 12:00 pm. Transportation arrangements to BRO from SPI to be determined.