

Program Schedule



PACIFIC ESTUARINE
RESEARCH SOCIETY

CALIFORNIA ESTUARINE
RESEARCH SOCIETY

JOINT ANNUAL MEETING

Southwest Community College
Coos Bay, OR



March 16-19, 2017

Meeting Sponsors

Oregon Sea Grant

GeoEngineers

7 Devils Brewing Co.



PERS/CAERS Joint Meeting

March 16-19, 2017

Coos Bay, OR

Welcome from PERS and CAERS!

We are pleased to welcome you to the first joint PERS-CAERS annual meeting, bringing together west coast affiliate members ranging from “Baja to British Columbia”. This meeting also marks the 40th annual meeting for PERS, and PERSians are honored to share this exciting landmark with their affiliate brethren to the south. We are fortunate to have such a great location for our meeting, with Coos Bay and the surrounding area offering many important and historical ties to coastal and estuarine ecosystems. This is the home of the South Slough National Estuarine Research Reserve, Oregon Institute of Marine Biology, and a place with a rich history of communities and economies tied to the estuary and coastal ocean. The area also represents the historic homelands of several indigenous groups, including the Coquille Tribe and the Confederated Tribes of Coos, Lower Umpqua, and Siuslaw Indians. A number of field trips on Sunday provide several opportunities to get out and explore the area and see some of what it offers.

To emphasize the collaborative spirit of this meeting, the scientific program will focus on ecological and management issues that transcend state and regional boundaries and thus truly bring us together in conversations and presentations in which we are all vested. Themes that have emerged from your collective contributions include invasive species, impacts of climate change and sea level rise, health and management of seagrass ecosystem, and effects of environmental, climatic and anthropogenic stressors.

The format of the meeting is also meant to foster interaction, discussion and collaboration - with ample time for discussion during poster sessions and a large portion of the time set aside for smaller group discussions following the “fast-talk” sessions. This spirit of engagement is meant to encourage all conference participants - from undergraduate students to seasoned veterans - to interact and address the important issues that are facing estuarine and coastal research and management.

Enjoy the conference!

Regards,

Jude Apple, PERS President

Christine Whitcraft, CAERS President

scientists and managers and seeks to support their active involvement in the annual meeting and beyond. The first PERS meeting was held in 1977 in Astoria, OR and was organized by a cadre of Pacific coast estuarine scientists who formed the group as an Affiliate Society of the Estuarine Research Federation (ERF). PERS annual meetings are held up and down the Pacific Northwest coast, and generally rotate between British Columbia, Oregon and Washington.

California Estuarine Research Society (CAERS)

The California Estuarine Research Society (CAERS) is a non-profit organization dedicated to the improvement of education and research regarding California's and Baja California's estuarine and coastal environments. The society provides a forum to enhance communication among interested scientists, engineers, and students. Formed in 2002, CAERS is the newest affiliate of the Coastal and Estuarine Research Federation (CERF). CAERS was formed to fill a geographical gap in the CERF affiliate network, thereby strengthening ties among coastal and estuarine researchers in California and Baja California, Mexico. CAERS annual meetings are held throughout California and Baja Mexico.

Venue Location and Parking

The meeting is being held at Empire Hall/Hales Performing Arts Center at Southwestern Oregon Community College, located at 1988 Newmark Avenue in Coos Bay, OR. Conference attendees are welcome to park in any of the three main parking lots on campus. Lot#1 is closest to Empire Hall. For more detailed directions or maps, go to <https://www.socc.edu/directions>.

WiFi and Internet Access

Wi-Fi access is available to all conference attendees. Connect to the VISITOR wireless and use the password "1windcity". If connecting with a Mac or PC, you will be prompted to download and install a policy key to gain access to the SOCC network, which will scan your PC/Mac for peer to peer file sharing programs - which are not permitted on the network. Access will then be granted. This process may take up to one minute. If you do not have an antivirus program installed then links will be provided to free versions so you can download one and be in compliance. Connection with other devices (e.g. iPhone or Android) will not require any downloads, just opening your browser once connected.



Conference Schedule

Pacific Estuarine Research and California Estuarine Research
Societies

March 16-19, 2017

Southwestern Oregon Community College
1988 Newmark Avenue Coos Bay, OR

Sponsored by Oregon Sea Grant and GeoEngineers (WA)

CAERS



Friday 3/17

7:45-8:30	Registration, Check-in and Breakfast Buffet
8:30 - 9:00	Welcome <i>Jude Apple, PERS President</i> <i>Christine Whitcraft, CAERS President</i>
9:00 - 10:00	Poster Session (preceded by lightning round of poster previews by presenters) Presenters: Salant, Schwartzkopf, Lundeberg, Tran, Prentice, Eckert, Cook, Lemagie, Lutz, DeWitt
10:00 - 10:30	Break (with refreshments)
10:30 - 11:30	Fast Talks Session#1: Coastal Restoration and Management Presenters: Vance, Rumrill, Colombano, Brophy, Whitcraft, Acuna
12:00 - 1:00	Lunch
1:00 - 2:00	Fast Talks Session#2: Novel Techniques and Coastal Restoration and Management Presenters: Emm, Perotti, Groth, Kehoe, Smith
2:00 - 3:00	Fast Talks Session#3: Seagrass Presenters: Brockman, Nelson, Adamczyk, Thalmann, Tomas-Nash
3:00 - 3:15	Break (with refreshments)
3:15 - 4:15	Special Topics Panel: West Coast Blue Carbon - Current Status and Future Direction Panelists: Apple, Hodgson, Prentice, Poppe, Borde, Lutz, Murray
5:00 - 6:00	PERS and CAERS Business Meetings
6:00 - 9:00	PERS CAERS Banquet Social Hour with Refreshments Guest Speaker: Don Ivy, Coquille Tribal Chief

Saturday 3/18

8:00-8:30	Registration, Check-in and Breakfast Buffet
8:30 - 9:30	Poster Session (<i>preceded by lightning round of poster previews by presenters</i>) Presenters: Hunter, Poppe, Talley, Andersen, Treneman, Takacs, Burnett, Brietenstein, Gillett, Gunn
9:30 - 10:00	Break (with refreshments)
10:00 - 11:00	Fast Talks Session#4: Invaders and Invasions Presenters: Yamada, Wigginton, Kidd, Turner, Chapman, de Rivera
11:00 - 12:00	Fast Talks Session#5: Stressors Presenters: Hewett, Sund, Donahue, Sutula, Williams, Eger, Janousek
12:00 - 1:00	Lunch
1:00 - 2:00	Fast Talks Session#6: Habitat Utilization Presenters: D'Andrea, Chalifour, Small, Osborn, Matsubu
2:00 - 3:00	Fast Talks Session#7: Life Histories, Baseline Studies and Science Communication Presenters: Groth, Dumbauld, Whitman, Martindale
3:00 - 4:00	Awards and Closing Remarks <i>Jason Stutes, PERS President Elect</i> <i>Jude Apple, PERS President</i> <i>Christine Whitcraft, CAERS President</i>
4:00	Adjourn

Sign up for the following field trips at the Registration table by noon on Friday

Sunday 3/19 Field Trips and Other Activities

9:00 - 12:00	Class on the Japanese art of Gyotaku (Fish Printing) with Bruce Koike.	OIMB
9:00 - 11:00	Tour of South Slough Reserve Restoration Sites	South Slough NERR
9:00 - 11:00	Tour of Oregon Institute of Marine Biology Lab and Charleston Marine Life Center	OIMB
On your own	Self-guided tour of South Slough NERR	South Slough NERR
On your own	Self-guided tour/hiking of Cape Arago	Cape Arago State Park
On your own	Self-guided tour of Oregon Dunes	Oregon Dunes National Recreation Area

Thanks for joining us in Coos Bay!

List of Presenters and Titles

*(*indicates student presenter)*

Friday Fast Talk Sessions

Session #1: Coastal Restoration and Management (Friday morning)

Vance, Mitch	Commercial Clamming in Oregon's Estuaries: Trends and Current Status
Rumrill, Steve	INITIAL STEPS ALONG THE PATHWAY TOWARD AN OREGON SHELLFISH INITIATIVE: RECOMMENDATIONS FROM THE OREGON SHELLFISH TASK FORCE
Colombano*, Denise	NURSERY FUNCTIONS IN A MODIFIED BRACKISH MARSH
Brophy, Laura	Mapping Oregon's Future Tidal Wetlands: Landward Migration Zones for Oregon's 23 Coastal Estuaries Under 6 Sea Level Rise Scenarios
Whitcraft, Christine	TEMPORAL VARIATION IN MECHANISMS DRIVING BIODIVERSITY-PRODUCTIVITY RELATIONSHIP IN A RESTORED COASTAL WETLAND
Acuna, Shawn	LONGFIN SMELT, SPIRINCHUS THALEICHTHYS SHIFTING PARADIGMS IN THE SAN FRANCISCO ESTUARY

Session #2: Novel Techniques and Coastal Restoration and Management

Emm*, Jefferson	Mapping intertidal eelgrass (<i>Zostera marina</i>) habitat using multispectral UAV imagery
Perotti, Elizabeth	ABOVE THE MUD: VISUALIZING SMALL FEATURES IN OREGON ESTUARIES WITH UNMANNED AIRCRAFT SYSTEMS
Groth, Kate	FIELD MEASUREMENTS AND SEDIMENT TRACER MODELING AT COOS BAY INLET, OREGON
Kehoe*, Laura	PRIORITIZING MANAGEMENT ACTIONS WHEN DATA IS SCARCE AND SYSTEMS ARE COMPLEX
Smith*, Katherine	WETLAND RESTORATION OR MANAGEMENT? CONSERVING THE ESTUARINE ENDEMIC SALT MARSH HARVEST MOUSE

Session #3: Seagrass

Brockman*, Joseph	EFFECTS OF AIR TEMPERATURE AND DURATION OF EXPOSURE ON THE INTERTIDAL ZOSTERA MARINA FROM THE SALISH SEA
Nelson, Walt	Development of threshold values for a seagrass epiphyte indicator of nutrient enrichment in coastal systems
Adamczyk*, Michael	Low salinity, oxygen levels, and donor site influence germination of <i>Zostera marina</i> seeds from the Salish Sea
Thalman*, Hillary	Effects of invertebrate mesograzers and hydroponic culture on eelgrass (<i>Zostera marina</i>) from 4 sites in the Salish Sea
Tomas-Nash, Fiona	FROM BC TO BAJA: A MACROECOLOGICAL STUDY EXAMINING STRATEGIES AGAINST HERBIVORY IN THE SEAGRASS ZOSTERA MARINA

Special Topics Panel

Apple, Jude	Blue Carbon Research and Management from BC to Baja - Current Status and Future Directions
-------------	--

Saturday Fast Talk Sessions

Session #4: Invaders and Invasions

- Yamada, Sylvia LIFTING BARRIERS TO RANGE EXPANSION: THE EUROPEAN GREEN CRAB, *CARCINUS MAENAS*, ENTERS THE SALISH SEA.
- Wigginton*, Rachel ALIGNING RESTORATION GOALS AND RECOVERY TIMES AFTER INVADER ERADICATION IN CALIFORNIA SALT MARSHES
- Kidd*, Sarah TIDAL WETLAND RESTORATION AND SEA-LEVEL RISE: NATIVE AND NON-NATIVE PLANT COMMUNITY SEED BANK RESPONSE TO CHANGES IN TIDAL FLOODING AND SALINITY
- Turner*, Brian The Revenge of a Pacific Northwest Clamtastrophe: Examining inducible defenses to novel predators
- Chapman, John HERE COMES *UPOGEBIA MAJOR*
- de Rivera, Catherine Prey palatability influences predation on native versus nonnative ascidians on docks but not benthic habitat

Session#5: Stressors

- Hewett*, Kate DISSOLVED OXYGEN VARIABILITY ON THE NORTH-CENTRAL CALIFORNIA SHELF
- Sund, Daniel Ocean Acidification and Hypoxia (OAH) Monitoring – Working towards an Oregon monitoring network.
- Donahue*, Kelsey COMBINED EFFECTS OF OCEAN ACIDIFICATION AND INCREASED LIGHT INTENSITY ON NATURAL PHYTOPLANKTON COMMUNITIES FROM TWO SOUTHERN OCEAN WATER MASSES
- Sutula, Martha INTEGRATED MODEL OF OCEAN ACIDIFICATION AND HYPOXIA TO SUPPORT ECOSYSTEM PREDICTION AND ENVIRONMENTAL MANAGEMENT IN THE CALIFORNIA CURRENT ECOSYSTEM
- Williams*, Kathryn Effects of wood waste on marine sediments and eelgrass (*Zostera marina*) in the Salish Sea
- Eger*, Aaron If you cease it, will they come back? How exposure to and release from a pollution disturbance shapes rocky intertidal communities in British Columbia.
- Janousek, Christopher INUNDATION AND SALINITY EFFECTS ON PLANT PRODUCTIVITY IN WEST COAST TIDAL MARSHES

Session #6: Habitat Utilization

- D'Andrea, Anthony CMECS AND SEACOR: INCORPORATING RECENT SHELLFISH, VEGETATION, AND SUBSTRATE DATA TO IMPROVE HABITAT CLASSIFICATION MAPS FOR OREGON ESTUARIES
- Chalifour*, Lia EELGRASS, MARSH OR SANDFLAT? EVALUATING THE SEASONAL USE OF ESTUARINE HABITATS BY JUVENILE SALMON AND FISH COMMUNITIES IN THE FRASER RIVER ESTUARY.
- Small, Doris IMPACTS OF INTERTIDAL CULVERTS, BRIDGES AND TIDEGATES ON FISH ACCESS AND HABITAT CONNECTIVITY
- Osborn*, Katherine MAD FISH: FISH AND INVERTEBRATE COMMUNITIES IN THE MAD RIVER ESTUARY
- Matsubu*, William JUVENILE STEELHEAD FORAGING BEHAVIOR AND PREY ASSEMBLAGE IN AN INTERMITTENTLY CLOSED ESTUARY

Session #7: Life Histories, Baseline Studies and Science Communication

Groth, Scott	GROWTH AND LONGEVITY OF THE RED ROCK CRAB, <i>CANCER PRODUCTUS</i>
Dumbauld, Brett	LARVAL RECRUITMENT FROM THE NEARSHORE COASTAL OCEAN INFLUENCES BURROWING SHRIMP POPULATION ABUNDANCE AND STRUCTURE IN US WEST COAST ESTUARIES
Whitman, Alison	Pre-spawn Pacific Herring Population Estimates and Dynamics on the central Oregon coast
Martindale, Scott	Effectively communicating scientific findings to lay audiences

List of Poster Presenters and Titles

(*indicates student presenter)

Friday Poster Session

Salant*, Carlissa (1)	A comparative study replicating the methods of a 30-yr fish assemblage survey in the Coos estuary on a spatiotemporal scale
Schwartzkopf*, Brittany (2)	UNDERSTANDING THE FEEDING ECOLOGY OF JUVENILE ROCKFISHES IN OREGON'S ESTUARIES
Lundeberg*, Christopher (3)	Spatial and vertical distribution of the invasive European green crab in a temperate estuarine system
Tran*, Tyler (4)	Mitigating ocean acidification: Towards a model relating pCO ₂ , irradiance, and density of <i>Zostera marina</i> L. (Eelgrass) from Padilla Bay, Washington
Prentice*, Carolyn	WHAT FACTORS DRIVE VARIATION IN TEMPERATE SEAGRASS 'BLUE CARBON' STOCKS?
Eckert*, Dana	EFFECTS OF OCEAN ACIDIFICATION AND WARMING ON OLYMPIA OYSTER LARVAL SETTLEMENT AND JUVENILE MORTALITY
Cook*, Claire	SPATIAL AND TEMPORAL PATTERNS OF WATER COLUMN RESPIRATION IN A SALISH SEA EMBAYMENT
Lemagie*, Emily	TIDAL INFLUENCE ON THE COASTAL ALONGSHORE TRANSPORT OF BUOYANT RIVER PLUMES
Lutz*, Mira	BLUE CARBON IN CENTRAL SALISH SEA EELGRASS MEADOWS
DeWitt, Theodore	MAPPING THE DISTRIBUTION OF HARVESTED ESTUARINE BIVALVES WITH NATURAL HISTORY-BASED HABITAT SUITABILITY MODELS

Saturday Poster Session

Hunter, Matthew	IMPROVED MONITORING AND UNDERSTANDING OF BIOTOXINS IN SHELLFISH AND FORAGE FISH
Poppe, Katrina	Revealing the sediment and blue carbon dynamics of both natural and recently restored tidal marshes in the Stillaguamish River estuary
Talley, Theresa	Fate of plastics in wetland fish and sediments at the mouth of an urban coastal watershed
Andersen, Carrissa	RECREATIONAL HARVEST OF DUNGENESS CRAB IN ALSEA BAY, OREGON: A COMPARISON BETWEEN AGENCY DATA AND CITIZEN SCIENCE INFORMATION TO ESTIMATE CATCH-PER-UNIT-EFFORT
Treneman, Nancy	SHIPWORMS: CRYPTIC ECOLOGICAL ENGINEERS OF THE SEA
Takacs, Graham	EVALUATION OF BATHYMETRY METHODS FOR MAPPING ELEVATION IN ESTUARIES

Burnett, Nicole

ZOOPLANKTON COMMUNITY COMPOSITION: DIEL VARIATIONS IN A SHALLOW
EMBAYMENT

Brietenstein, Ralph

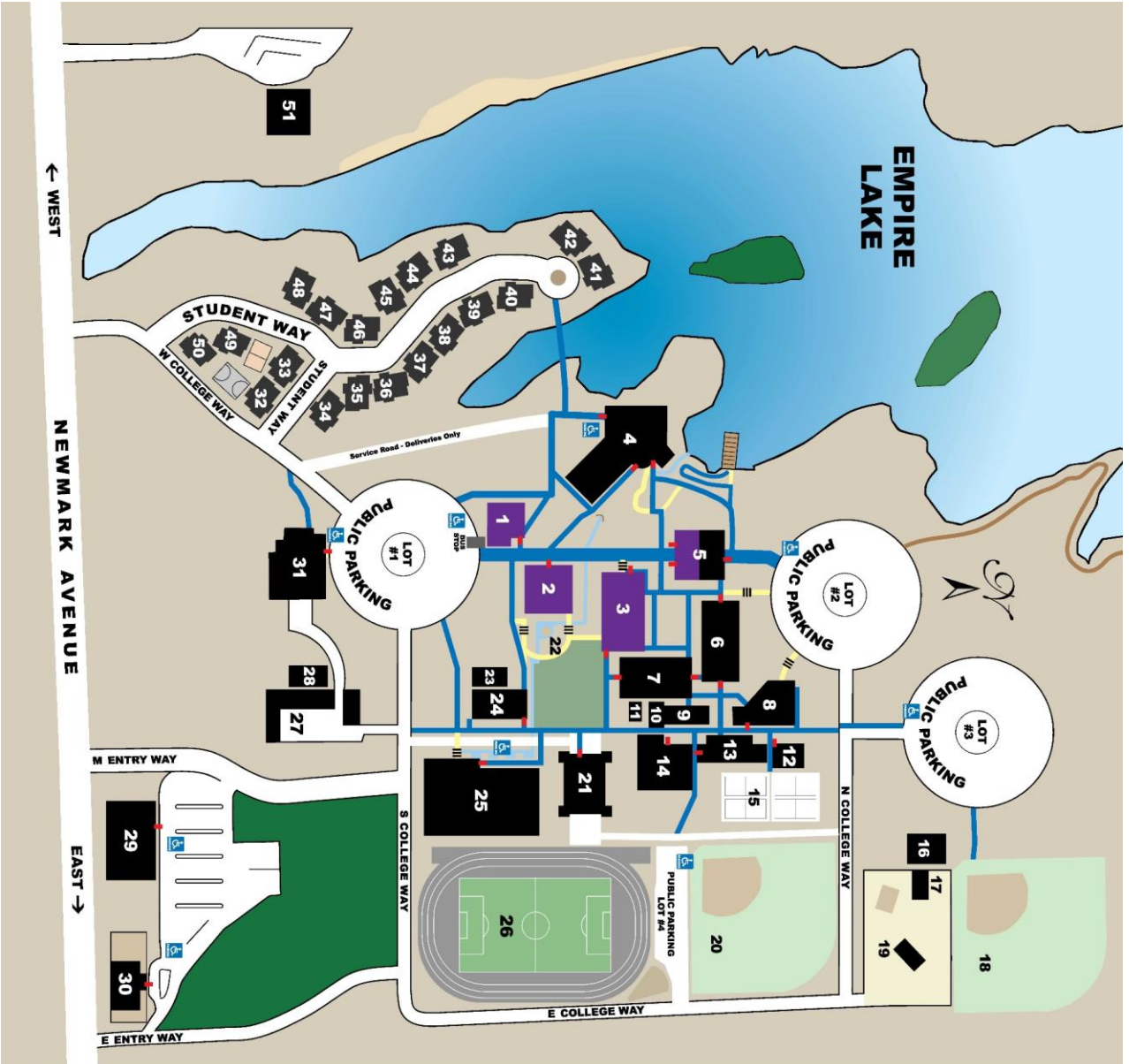
HAVE YOU SEEN THIS NEW INVADER?

Gillett, David

An Estuarine Benthic Assessment Tool for Those Without One of Their Own

Gunn, Cailene

DEVELOPMENT OF AN AUTOMATED SYSTEM TO MEASURE GREENHOUSE GAS
RESPONSE TO SALTWATER TREATMENT OF TIDAL FRESHWATER WETLAND
SEDIMENTS



SOUTHWESTERN
AN OREGON COMMUNITY COLLEGE

DIRECTORY

STUDENT SERVICES OFFICES ARE IN PURPLE - COME SEE US FOR HELP!

- 1. **Stensland Hall**
Advising
Bookstore
Classrooms
Counseling Offices
Disability Services
University Center
- 2. **Delwood Hall**
Admissions
Business Office
Community Education
Dean of Students
Financial Aid
Student First Stop Center
Veteran's Programs
Workforce Development
- 3. **Randolph Hall**
Deans of LDC and CTE
Integrated Technology Services
Media Services
Student Support Services/TRIO
- 4. **Hales Center / Empire Hall**
Associated Student Government
Black Box Theater
Dining Services
Hales Center for the Performing Arts
Lakeview Meeting Rooms
- 5. **Trojan Hall**
Administration
Board Room
Computer Lab
Foundation
Human Resources
Library
Mail and Print Services
Testing Center
Tutoring Center
Writing Center
- 6. **Sitkum Hall**
Classrooms
Classrooms
- 7. **Coaldale Hall**
Classrooms
- 8. **Eden Hall**
Art Department
- 9. **Lampa Hall**
Faculty Offices
- 10. **B-2 Technology Annex**
Faculty Offices
- 11. **Greenhouse**
University Center
- 12. **Sunset Hall**
Music Department
- 13. **Summer Hall**
Nursing / EMT Classrooms
- 14. **Fairview Hall**
Welding / Manufacturing
- 15. **Tennis Courts**
- 16. **Field House**
- 17. **Fire Science**
- 18. **Baseball Field**
- 19. **Fire Tower**
- 20. **Softball Field**
- 21. **Prosper Hall / Gym**
Athletic Trainer
Locker Rooms
- 22. **Poet's Eye Outdoor Theater**
- 23. **Maintenance Warehouse**
- 24. **Umpqua Hall - Campus Security**
Classrooms
- 25. **Student Recreation Center**
Classrooms
Climbing Wall
Dance Rooms
Fitness Center
Gym / Mat Room
Racquetball Court
- 26. **Track / Soccer Field**
- 27. **Plant Services / Maintenance**
- 28. **Greenhouse**
- 29. **Newmark Center**
- 30. **Family Center**
- 31. **Oregon Coast Culinary Institute**
- 51. **Neighborhood Facility Building**

- Disabled Accessible Route
- Disabled Accessible Entrances
- ||| Stairs

Campus Security 541-297-4200

- STUDENT HOUSING**
- 32. North Head
 - 33. Lighthouse Depot - OFFICE
 - 34. Willamette River
 - 35. Warrior Rock
 - 36. Desdemona Sands
 - 37. Point Adams
 - 38. Tillamook Rock
 - 39. Cape Mearse
 - 40. Yaquina Head
 - 41. Hecla Head
 - 42. Umpqua River
 - 43. Cape Argo
 - 44. Conville River
 - 45. Cape Blanco
 - 46. St. George Reef
 - 47. Battery Point
 - 48. Trinidad Head
 - 49. Willapa Bay
 - 50. Gray's Harbor

*Southwestern Community College is an equal opportunity institution.