Mendocino College Coastal Field Station

23008 N Hwy 1, Point Arena, CA 95468
Mendocino College Main Campus in Ukiah

Lake Center, Lakeport  North County Center, Willits  Coast Center, Fort Bragg
US Army Air Corps 1945-1950
US Coast Guard 1950-1981
LORAN Signal Station and Coast Guard Offices
Key Points in History

- Won in a competitive process from U.S. Dept. of Education in 1981
- Initial infrastructure work
  - Houses turned into dormitories
  - Shop turned into class meeting space
- Evaluated by the Federal Government for a period of 30 years
- Mendocino College awarded the property in 2011
- Decision to sell Conservation Easement to BLM in late 2014
- Mendocino College Coastal Field Station name formalized in 2015
- Friends of the Mendocino College Coastal Field Station and Natural Sciences, an Affiliate of the MC Foundation, since 2015
Protected and relatively pristine for 35+ years
Natural Science
Life and physical sciences
Scientific method
Natural science versus social science
Natural science versus pseudoscience

Environmental Awareness
Biodiversity and native species
Natural hazards
Environment appreciation

21st Century Issues
Anthropogenic climate change
Invasive species
Ecosystem degradation
Ocean acidification

Fostering our Future Through Experiential Inquiry: A hands-on approach to developing an environmentally aware society
PBO GPS & CeNCOOS CODAR on site since 2006
- OBFS
- WAML
- UC Natural Reserve System

Local Field Station Networks
Example Northern California Field Stations

Angelo Reserve
UCNRS: Berkeley

Quail Ridge Reserve
UCNRS: Davis
Infrastructure work:
~11 years ago
New windows throughout houses
~ 7 years ago ➔ Architectural Review
~ 4 years ago
Major roof repair on House 1
Bathroom remodeling of Houses 1 and 2
Dry laboratory room set up
2016 ➔ High speed WiFi (FurtherReach.Net)

Non-profit Friends group since 2015

NSF FSML Planning Grant 2015-2016
Mission:
To encourage student success in the Natural Sciences by protecting and supporting a unique educational resource that provides for innovative instruction at Mendocino College.

Vision:
The exceptional field learning experiences provided through use of the Mendocino College Coastal Field Station create unique learning communities that support student success through focusing on relevant 21st century issues. The FMCCFSNS endeavors to:
• preserve and protect the sensitive biological habitats of the Field Station,
• educate the public on restricted, managed access rather than open public access,
• support the Natural Sciences at Mendocino College by promoting college programs, recognizing that the college field station offers a unique facility that can be used to recruit students of STEM fields to begin their college education at Mendocino College.
Significance of Community College Recipient

Future Trends for Student Research at the CC
Council of Undergraduate Research
NSF Community College Research Initiative

Importance of the Planning Grant for Other Grants

Main Goals of the Planning Grant
- Determine and incorporate best practices
- Identify and develop partnerships
- Develop 5-year Strategic Plan

National Science Foundation FSML Planning Grant
Improvements in Facilities, Communications, and Equipment at Biological Field Stations and Marine Laboratories (FSML)
Short Term $\rightarrow$ Deferred maintenance

Long Term ideas $\rightarrow$ Museum & Wet laboratory

Lots of Work to be Done
• Foster high-impact experiential learning

• Welcome researchers from a broad spectrum of human inquiry

• Encourage community engagement in the enterprise of education

MC Coastal Field Station Mission
• MC college classes
  • Science classes scheduled first when possible
  • Non-science classes encouraged
  • No minors

• Approved external groups (online inquiry form)
  \(\rightarrow\) same rules + nominal fees
  • Other college/university outings
    • Educational field trips
    • Research-oriented field work
  • Non-profit educational/research groups
  • Citizen-scientist and community outreach

Using the MC Coastal Field Station
Mendocino College Programs

Biology and Earth Science Department field trips
MESA Program
Art Department *En Plein Air* excursions

College and University Programs

UC Santa Cruz PISCO researchers → MC Student Exposure to UC system
UC field Supercourse site visit
Humboldt State University, PA Mountain Beaver studies
University of Florida, Butterfly conservation work
UC Davis Bodega Marine Laboratory → MC students taking summer marine bio classes

Non-Profit and Government Groups

Pacific Manta Research Group → MC student internship
Reef Check California → MC student coordinator
Greater Farallones Association → MC students exposed to citizen scientist program
US Geological Survey → Share findings with MC marine biology classes
CNPS Vegetation Sampling → In coordination with MC student botany work

Community Outreach

Annual Open House during Discover the Coast → MC Student helpers

Recent and Ongoing Usage
Mendocino College Programs

- Culinary Arts
- Sustainable Tech

Bureau of Land Management

- Cooperative agreement regarding practices on National Monument
- Follow same protocols for bio-surveys
- Compare biodiversity studies on and off monument lands
- Test and compare control methods for invasive species

Community and Non-Profit Groups

- Greater Farallones National Marine Sanctuary
- California Native Plant Society
- Audubon Society
- Coast Guard Auxiliary
- Point Arena Gateway Group
- Point Arena Lighthouse Keepers, Inc.
- Coastal Native American groups
- K-12 educational outreach

Potential Collaborations
High School Outreach
• Coordinate an outing each year → MC student “docents”

California Native Plant Society and Audubon Society
• Periodic BioBlitz with MC student involvement
• Annual bird count with MC student involvement

Coast Guard Auxiliary
• Museum related to LORAN generators and technology → connect with MC classes

Native American outreach
• Land use history and coastal prairie botany → connect with MC classes

Community Outreach
• Participate in coastal community speaker series

Example Projects