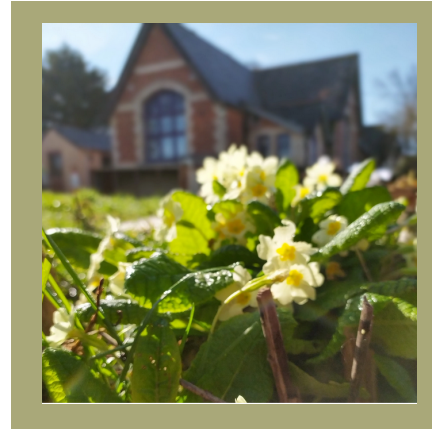




THE
ROSELAND
CENTRE

THE ROSELAND CENTRE Educational Partnership Field Courses



St Just in Roseland, Cornwall Truro TR2 5JA



The Roseland Centre provides access to estuarine, intertidal and coastal environments within the Fal Estuary and Roseland Peninsula. The following example activities can be combined into bespoke university field courses ranging from 1–7 days.



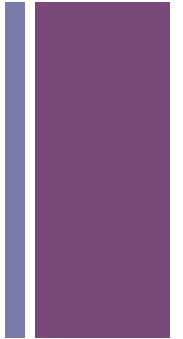
FIELD-BASED LEARNING OPPORTUNITIES

The Roseland Centre provides access to estuarine, intertidal and coastal environments within the Fal Estuary and Roseland Peninsula. The following example activities can be combined into bespoke university field courses ranging from 1–7 days.



THE
ROSELAND
CENTRE

+ ROCKY SHORE ECOLOGY SURVEYS



■ **Example Activities:**

- Intertidal zonation studies using transects and quadrats
- Species identification and abundance recording
- Environmental gradient analysis (exposure, desiccation, salinity)
- Impact of wave exposure on community structure
- Human impact assessments (recreation, pollution, disturbance)

■ **Skills Developed:**

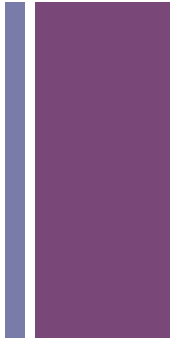
- Quadrat and transect methodology
- Field identification skills
- Ecological data recording
- Statistical comparison of habitats



THE
ROSELAND
CENTRE



BIODIVERSITY MONITORING



■ **Example Activities:**

- Habitat surveys across coastal and estuarine systems
- Long-term ecological monitoring techniques
- Indicator species identification
- Invertebrate sampling in saltmarsh and mudflat systems
- Citizen science and conservation datasets

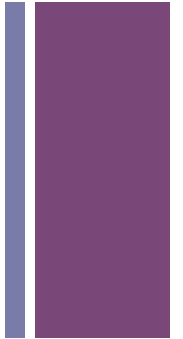
■ **Skills Developed:**

- Survey design and sampling strategy
- Data management and recording consistency
- Biodiversity indexing (e.g. species richness, Shannon index)
- Conservation assessment techniques



THE
ROSELAND
CENTRE

+ ESTUARINE TRANSECTS



■ **Example Activities:**

- Salinity gradients along estuarine systems
- Sediment sampling and classification
- Vegetation zonation in saltmarsh habitats
- Nutrient and turbidity measurement
- Human influence mapping (land use, agriculture, settlement)

■ **Skills Developed:**

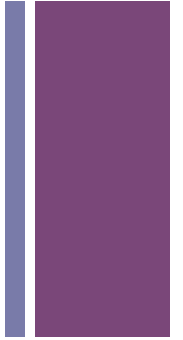
- Environmental gradient analysis
- GPS and transect mapping
- Field instrumentation use
- Interpretation of estuarine dynamics



THE
ROSELAND
CENTRE



COASTAL GEOMORPHOLOGY



■ **Example Activities:**

- Cliff erosion and rock type identification
- Beach profiling and sediment analysis
- Coastal process mapping (longshore drift, deposition)
- Sea defence and coastal management evaluation
- Historical coastline change using maps and GIS

■ **Skills Developed:**

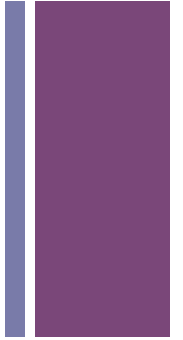
- Physical geography field techniques
- Sediment analysis and classification
- Map interpretation and GIS integration
- Coastal system understanding



THE
ROSELAND
CENTRE



WATER QUALITY SAMPLING



■ **Example Activities:**

- pH, salinity, dissolved oxygen and turbidity testing
- Pollution source identification
- Freshwater–marine mixing zone analysis
- Nutrient loading in estuarine systems
- Temporal variation in water quality measurements

■ **Skills Developed:**

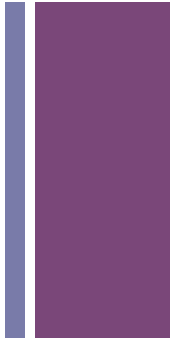
- Environmental sampling protocols
- Use of field instruments and probes
- Data analysis and interpretation
- Understanding anthropogenic impacts



THE
ROSELAND
CENTRE



CONSERVATION MANAGEMENT STUDIES



■ Example Activities:

- Habitat condition assessment (saltmarsh, estuary, rocky shore)
- Human impact and disturbance mapping
- Protected area evaluation (AONB/SAC contexts)
- Conservation strategy development exercises
- Restoration ecology case studies

■ Skills Developed:

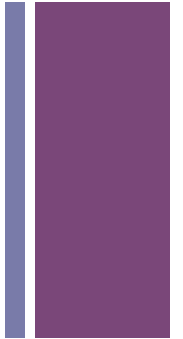
- Environmental impact assessment
- Conservation planning
- Policy awareness and application
- Evidence-based decision making



THE
ROSELAND
CENTRE



SUITABILITY FOR ACADEMIC PROGRAMMES



These activities are suitable for:

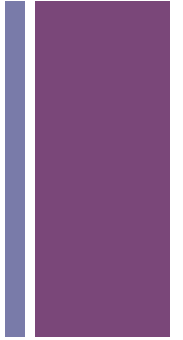
- • Natural History GCSE
 - Marine Biology
 - Ecology • Geography
 - Conservation Biology
 - Coastal Management
 - Sustainability Studies
 - Outdoor Education
 - Environmental Science



THE
ROSELAND
CENTRE



FLEXIBLE DELIVERY MODEL



The Roseland Centre can support:

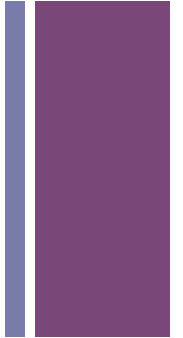
- 1-day field intensives
- 3–5 day residential field courses
- Dissertation / research project bases
- Postgraduate field modules
- Bespoke staff-led or centre-supported teaching programmes



THE
ROSELAND
CENTRE



CONTACT



The Roseland Centre
St Just in Roseland
Cornwall

Email: deborah.lambert@theroselandcentre.org

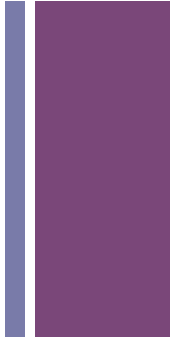
We welcome informal discussions and pilot visits for academic staff.



THE
ROSELAND
CENTRE



Appendix



Sample and suggested timetables

If you wish to have a series of delivered workshops, these will be tailored to your requirements and sent to you for prior approval by our curriculum expert, **Deborah Lambert**, author of Bloomsbury's National Curriculum Outdoors and her colleagues.



THE
ROSELAND
CENTRE



Sample 3 day programme

Marine Ecology & Coastal Environments





POTENTIAL LEARNING



Learning Outcomes

Students will be able to:

- Apply standard ecological survey techniques
- Analyse environmental datasets
- Evaluate coastal ecosystem health
- Produce habitat maps
- Communicate scientific findings effectively
- Understand conservation challenges within estuarine and coastal systems

Suggested Equipment

Quadrats, Transect tapes, GPS units, Water quality testing kits, Species identification guides, GIS software, Clipboards and field notebooks



MARINE ECOLOGY & COASTAL SYSTEMS



DAY 1 ROCKY SHORE ECOLOGY

- Intertidal zonation studies
- Quadrat and transect surveys
- Species identification
- Data collection and habitat analysis

DAY 2 ESTUARINE SYSTEMS & GIS

- Water quality sampling (pH, salinity, DO)
- Sediment analysis
- Estuarine transects
- GPS mapping and GIS introduction

DAY 3 BIODIVERSITY & PRESENTATION

- Field biodiversity surveys
- Data analysis and interpretation
- Student presentations
- Group feedback and discussion



Marine Ecology & Coastal Environments

DAY 1 – ROCKY SHORE ECOLOGY



Learning Objectives

- Understand intertidal zonation patterns
- Develop species identification skills
- Learn ecological survey techniques
- Investigate environmental factors influencing species distribution

Skills Developed

- Quadrat sampling
- Transect surveys
- Species identification
- Field recording techniques



Marine Ecology & Coastal Environments

DAY 1 – ROCKY SHORE ECOLOGY



Morning

09:30 – Arrival and welcome briefing

10:00 – Health & safety and fieldwork

11:00– Introduction to rocky shore ecology protocols

Afternoon Field Session

12:30 – Travel to local rocky shore site

13:00 – Quadrat and transect surveys

14:30 – Species identification workshop

15:30 – Data collection and habitat assessment

16:30 – Return to Centre

Evening

18:30 – Data entry and analysis

19:30 – Group discussion:

Factors influencing intertidal biodiversity

Why are some parts of the shore more biodiverse than others?



Marine Ecology & Coastal Environments

DAY 2 –_ESTUARINE ECOLOGY & GIS MAPPING

Learning Objectives

- Explore estuarine ecosystems
- Collect environmental data
- Understand habitat mapping techniques
- Use GIS to analyse field data

Skills Developed

- Water quality testing
- Sediment analysis
- GPS surveying
- GIS mapping
- Environmental monitoring



Marine Ecology & Coastal Environments

DAY 2 – ESTUARINE ECOLOGY & GIS MAPPING

Morning

09:00 – Introduction to estuarine ecology

09:30 – Walk to St Just Creek / Fal Estuary study area

Field Session

10:00 – Water quality monitoring

11:00 – Sediment sampling

11:45 – Salinity and temperature measurements

12:30 – Habitat classification

Afternoon

14:00 – GPS data collection

15:00 – Introduction to GIS mapping

16:00 – Mapping habitats and sampling locations

Evening

18:30 – Data processing workshop

19:30 – Small-group project planning



Marine Ecology & Coastal Environments

DAY 3 – BIODIVERSITY SURVEYS & PRESENTATIONS

Learning Objectives

- Conduct ecological surveys
- Analyse ecological datasets
- Communicate scientific findings
- Evaluate conservation challenges

Skills Developed

- Ecological data analysis
- Scientific communication
- Teamworking
- Conservation assessment
- Presentation skills



Marine Ecology & Coastal Environments

DAY 3 – BIODIVERSITY SURVEYS & PRESENTATIONS



Morning

09:00 – Biodiversity survey design

09:30 – Field surveys in estuarine and coastal habitats

11:30 – Data collation and analysis

Afternoon

13:00 – Group project preparation

14:30 – Student presentations

Example Presentation Topics

- Rocky shore biodiversity
- Estuarine ecosystem health
- Habitat mapping results
- Conservation recommendations

15:30 – Feedback and discussion

16:00 – Course review and departure