Thames Estuary Partnership

Blue Connections - Training modules

Module	Content	Learning outcome	Skills & Knowledge
Introduction to the Thames Estuary	● Physical processes and chemical characteristics ● Biology ● Ecology ● The Thames through time ● Current state & environmental issues ● Governance & public use ● Future of the Thames	● Understanding the difference between the River Thames and Thames Estuary/Tidal Thames ● Understanding the tidal movements and tidal cycle ● Understand salinity gradient ● Knowledge of key species ● Knowledge of key habitats ● Understanding the natural history of the Thames ● Knowledge of key stakeholders ● Understanding the future of the Thames in the context of climate change	● Environmental knowledge ● Environmental awareness ● Sustainability ● Estuarine science ● Aquatic ecology ● Water quality ● Climate change ***Endorsed by the Institute of Environmental Science (IES)***
Introduction to MS Office	● Word ● Excel ● PowerPoint	● Working with fonts, headings, and images ● Working with placeholder text ● Drafting a report ● Working with data (rows and columns) ● Formulas ● Working with pivot tables ● Creating graphs ● Designing and preparing a presentation ● Video recording in presentation mode	● Creating (editing word) documents ● Preparing documents for print ● Creating spreadsheet ● Creating pivot tables ● Data analysis ● Data visualisation ● Creating presentations ● Communication

Introduction to Data Science	• What is data science?
	• Basic statistics
	• Installing R and RStudio
	• R Studio practical
	  • Introduction to R
	  • Intermediate R
	  • Import, download and save data in R
	  • Data wrangling in R
	  • Data visualisation in R
	  • Case study 1 & 2 using global climate and Thames Estuary data
		• Understanding the concept of data science
		• Data science roles & tools
		• Data science workflow
		• Installing R and RStudio
		• Working with RStudio
		• Working with 'tidyverse' package
		• Understanding descriptive statistics
		• Understanding exploratory data analysis
			• Computing
			• R programming language
			• Basic statistics
			• Working with data
			• Data analysis and visualisation
			• Communication
			• Storytelling
			• Analytical and critical thinking
			• Project management
			
			After completing this module, you will be given full free access* to DataCamp where you can further develop your skills.
			
			(Subject to agreement.)

Introduction to Geographic Information System (GIS) Science	• Spatial Thinking and Intelligence • Cartography • Geographic Information System • Coordinate Reference System • QGIS • ArcGIS	• Understanding the concept of spatial thinking • Map types and design • Map making process • Symbology, labelling, working with colours • GIS data types • GIS software types • Geographic coordinate system • Projected coordinate system • Creating maps in QGIS • Overview of ArcGIS products • Mapping using ArcGIS Online • Mapping using ArcGIS Pro • ArcGIS StoryMap making	• QGIS software use • ArcGIS products • Analytical and critical thinking • Geospatial visualisation • Project management

Introduction to Communication	● Defining Communication ● Social Media Toolkit ● Adobe Photoshop ● Adobe Illustrator ● Podcast Production ● Science and Society	● Understanding what communication means and its value ● How we can use social media within a company's strategy ● Learn the basic toolkit for Adobe Photoshop and Illustrator ● Learn the structure of production and postproduction of podcasting including liaising with guests needs and editing conversations ● Understanding how society views science and scientists ● Understanding a range of mediums of science communication and their values	● Adobe Photoshop and Illustrator skillset ● Knowledge of science communication ● Knowledge of what a company strategy is ● Logic Pro skillset ● Timely correspondence skill set ● Interview skills ● Research skills ● Script writing skills ● Microphone experience ● Remote recording experience ● Podcast creation skills
Environmental survey	● Fish survey Using seine net and fyke net ● Fish identification	● Fish survey techniques and identification	● Creating a risk assessment ● Creating a method statement ● Liaising with stakeholders ● Fieldwork preparation ● Environmental data collection ● GPS / what3words usage ***Certificate of Completion to be issued by the Institute of Fisheries Management (IFM)***