

ALL DAY

	Tutorial Subject	Title	Instructor
Tutorial 1	Optical Communications	Optical Communications Design Principles: Fiber and Free Space	Michael Brininstool
Tutorial 2	Passive Acoustics	BioAcoustics: Passive Acoustics Monitoring	BioWaves Staff
Tutorial 3	Free Vehicle Design	Fundamentals of Free Vehicle Design and Operation	Kevin Hardy

HALF DAY - MORNING

	Tutorial Subject	Title	Instructor
Tutorial 4	Sonar Systems	Multibeam Imaging SONARS: Fundamentals, Use and Specification	Mark Atherton
Tutorial 5	AUV Systems	AUV Technology and Application Basics	Brian Kieft, Brett Hobson
Tutorial 6	ADCP Systems	Interpreting ADCP Data – Efficiently and Effectively	Pete Spain, Paul Devine
Tutorial 7	Beamforming	Narrowband and Broadband Beamforming	John E. Piper
Tutorial 8 <i>*See Notes</i>	Additive Manufacturing	Fundamentals of Additive Manufacturing for Ocean Applications	Dan Searle
Tutorial 9	Aquatic Habitat Monitoring	Hydroacoustic Methods for Aquatic Habitat Assessment and Mapping	Eric Munday

HALF DAY - AFTERNOON

	Tutorial Subject	Title	Instructor
Tutorial 10	Underwater Imaging	Underwater Optical Imaging: Theory and Practice	Jules S. Jaffe
Tutorial 11	Coherent Radar	A Primer on Coherent And Coherent-on-Receive Marine Radar Fundamentals and Applications to Remote Sensing of Waves and Currents	Dennis Trizna
Tutorial 12	Split Beam Acoustics and Navigation	Fixed Position Monitoring using Split-beam Hydroacoustics	Eric Munday
Tutorial 13 <i>*See Notes</i>	UUV Capabilities	Unmanned Underwater Vessels (UUV) – Modern Capabilities of Autonomous and Remotely Operated Systems and Sensors	Michael B. Jones Eric Patten John Scanlon

