Syllabus

SMS 324- Introduction to Research Diving
(Summer & Fall 2021)

Course Information

Classification	SMS 324- Introduction to Research Diving; 3 credits.
Objectives/ Goals	This course will provide an introduction to research diving and satisfy the 100 hours of required training for scientific divers as prescribed by the American Academy of Underwater Sciences (AAUS). This training is required to participate in scientific diving activities at many universities, including UMaine, and at all AAUS member organizations throughout the United States.
Description	Students will be instructed in advanced diving skills, dive rescue, first aid, oxygen administration, and research diving techniques. Practical field diving activities will be a large focus of the course. The course will be taught by the UMaine Diving Safety Officer (DSO), selected UMaine faculty, and guest lecturers experienced in using scuba diving as a research tool. Following successful completion of course objectives, students will be eligible to participate in diving research projects as a scientific diver-in-training or scientific diver. Students will also be eligible to apply for applicable recreational diving certifications. Participation is not a guarantee of certification.
Location	UMaine Darling Marine Center 193 Clark's Cove Road, Walpole, ME 04573
Schedule	The Summer session of SMS324 will begin on **Wednesday, June 9, 2021** and meet every Wednesday (Jun 9-Aug 18); the Fall session of SMS324 will begin on **Wednesday, September 1, 2021** and run every Thursday (Sept. 1- Dec. 15). Class time is generally 8am-5pm; weather and tides may dictate meeting outside normally scheduled hours.

Course Requirements

Prerequisites	Each student must show proof of the following prior to beginning the course:
	• Nationally recognized diving certification
	• UMaine Diver's Medical/Physical Examination
	• UMaine Legal Documentation
	• Medical Insurance specific to scuba diving
	• Swim-test/ Permission of instructor- potential students must demonstrate swimming/ watermanship ability acceptable to the instructor, including but not limited to:
	  ○ Swim underwater 25 meters/yards without surfacing.
	  ○ Swim 400 meters/yards in less than 10 minutes.
	  ○ Tread water for 15 minutes (last 2 minutes without the use of hands).
	  ○ Snorkel with fins 800 meters/yards in less than 17 minutes.

Attendance	Participation in all classroom and field sessions is mandatory; absence or inability to participate will likely disqualify the student from certification. Make-up sessions will be scheduled at the discretion of the instructor.
Evaluation	Field Activities/ Personal Dive Log = 40% Final Exam = 30% Rescue Exam = 10% First Aid Exam = 10% Written assignments = 10%
Fees	Course Materials & Equipment Fee- $700 *(subject to change)*

Course Materials

Required Texts	All required texts for this course are provided by the instructor. Costs of required texts are covered by the course and lab materials fee.
Recommended Texts	• Marine Life of the North Atlantic- A. Martinez, DownEast Books, 1994 • NOAA Diving Manual, Fourth Edition, Best Publishing Company, 2001

Equipment

Student divers are encouraged to provide all of their own diving equipment, with the exception of scuba cylinders/ tanks. All personally owned equipment must conform to the minimum standards of the AAUS and UMaine Scientific Diving Program and be appropriate for the cold water diving environment. When applicable, proof of annual equipment service is required (*). As noted, some items can be provided by the UMaine Scientific Diving Program.

Required Personal Equipment

All participating divers must provide their own:

- Mask, Fins, Snorkel
- Exposure Suit (7mm wetsuit at minimum; 2-pc./farmer john style recommended)
- Hood, Gloves, and Boots
- Diver's tool/ knife
- Underwater watch (simple Timex, Casio, Freestyle recommended, ~$25-40)
- Equipment bag

Additional Required Equipment

All participating divers must also be equipped with the items listed below. If not personally owned, these items will be provided by the UMaine Scientific Diving Program with payment of course fees.

- Regulator with alternate air source, low pressure inflator hose, and submersible pressure gauge (*)
- Depth gauge & timing device/watch OR Dive Computer (*)
- Buoyancy compensator (BCD) with power inflator (*)
- Weight system with weights (weight belt or BC-integrated weights acceptable)
- Whistle (for surface signaling)
- UW Light
- UW Compass

Instructor Information

Christopher M. Rigaud, UMaine Diving Operations Manager/ Diving Safety Officer

Address: Darling Marine Center, 193 Clark's Cove Road, Walpole, ME 04573
Email: crigaud@maine.edu Web: http://www.umaine.edu/scientificdiving
Phone: 207-563-8273 / 207-949-2289 Office Hours: 8-4 weekdays

Chris has served as the UMaine Diving Safety Officer since 2003. He holds a B.S. from LIU-Southampton College, and a M.S. from Texas A&M University Corpus Christi. He has been a PADI Scuba Instructor for over 20 years, and is also an SDI/TDI Instructor, DAN Instructor, Emergency Medical Technician, Diver Medic Technician, and Public Safety Rescue Swimmer. He has served as a working diver and diving supervisor on scientific projects for numerous institutions and has served multiple terms on the Board of Directors of the American Academy of Underwater Sciences and the Diving Control Board of the National Science Foundation US Antarctic Program.

Colby E. Johns, UMaine Scientific Diving Assistant
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Colby is a graduate of the UMaine School of Marine Sciences (B.S., 2016). She was certified as an Open Water Diver at UMaine in 2015 and earned her UMaine/AAUS Scientific Diver certification soon after. Colby served as the UMaine Scientific Diving intern and was certified as a PADI Divemaster in 2016, less than a year after her initial certification. She is a qualified drysuit and nitrox diver, and has served as the UMaine Scientific Diving Assistant since 2017.