**Rutgers, The State University**

**BASIC SCUBA DIVING 11:628:230**

CLASS METHOD: Classroom Lecture & Pool Sessions (in person) with asynchronous eLearning

CLASS LOCATION: Werblin Recreation Center, Conference Room & Pool, Busch Campus

CANVAS SITE: <https://canvas.rutgers.edu> Basic Scuba Diving 11:628:230

INSTRUCTOR: Debby Miller

CELL NUMBER: 908-217-7614

OFFICE HOURS: Scheduled upon request

EMAIL: Use Canvas for Email; please allow 2 business days for replies

Scuba certification involves 3 components: 1) knowledge development, 2) confined water/pool skills, and 3) 4 open water dives. The Basic Scuba Diving course 11:628:230 is designed to cover the knowledge development and the confined water skills portions of the PADI Open Water Diver certification.

**COURSE DESCRIPTION**

This course introduces students to the fundamental academic concepts and practical skills of SCUBA diving as described by PADI (Professional Association of Dive Instructors) standards. The course addresses academic elements and applied sciences such as gas laws; Archimedes' principle; physics (light, sound, heat, aquatic pressure relationships); physiology (arterial gas embolism, decompression illness, hyperthermia, hypothermia); dive planning; equipment configuration; equipment function; environmental considerations (salt vs. freshwater, dangerous plants and animals, water temperature and visibility, depth). In addition, the PADI Open Water Diver course introduces practical experiential learning of confined water skills including fundamental SCUBA skills such as: regulator clearing and recovery; emergency out-of-air ascents; buoyancy control; mask clearing; problem-solving skills and self-rescue techniques; removal and replacement of gear; underwater communication; buddy system diving; equipment preparation, care, and assembly.

The methods of instruction include audio-visual materials, practical application exercises, classroom discussions, lectures, and computer-based eLearning.

After successful completion of the Basic Scuba course, (including all confined water skills), students have the option of completing 4 training dives in open water locally through Rutgers. Local training dives are arranged at training lakes in PA, throughout the spring, summer, and fall. Your training does not expire with Rutgers University and can be completed at any time in the future. Refresher pool sessions may be required or advised before open water dives if there is a significant gap (more than 3 months) in time between confined water & open water dives. There are other options for completion of the open water training dives. Students can register for one of the Rutgers group dive trips, or students can use a referral to schedule their dives while on a personal vacation. Requests for referrals need to be made in advance and allow at least 5 business days for receipt of referral documentation.

**COURSE OBJECTIVE**

The course objective is to provide students with the entry-level knowledge and skills necessary to safely participate in scuba training dives to a depth of 60 feet/18 meters, or shallower.

**COURSE LEARNING GOALS and ASSESSMENT**

Students completing this course will be able to demonstrate knowledge of topics including:

1. The relationship between changing depths, pressure, and volume and how it

affects divers physiologically, mentally, and physically.

1. Explain physical gas laws associated with pressurized gases used in diving.
2. Explain the physiology of diving, emphasizing but not limited to the effects of nitrogen and oxygen under pressure.
3. Demonstrate the skills necessary to plan and execute a dive with a buddy

safely including the use of the recreational dive planner, discussion of lost buddy procedures, out-of-air / low-on-air emergencies, hand signals, and pre-dive safety checks.

1. Identify the potential problems and hazards associated with scuba diving and demonstrate techniques to minimize occurrence or assist another diver.
2. Describe the underwater environment and how to plan dives according to water movement, visibility, temperature, aquatic bottom compositions, and aquatic life.
3. Understand how to obtain airfills, scuba equipment, and other dive services;
4. Describe types, features, parts, and maintenance requirements for various types of scuba equipment.
5. Explain the importance of continuing their diver training by completing the PADI Advanced Open Water Diver course, and/or PADI Specialty courses.
6. Explain opportunities for divers to be ambassadors for marine conservation.

These goals will be assessed by demonstrated proficiency in both knowledge of course materials (homework assignments, quizzes, and final exam) and, when available/scheduled the confined water applications (dive skills, in-water safety, and problem-solving procedures).

**TECHNOLOGY REQUIREMENTS**

* Students will need the following technology to successfully participate & complete the course: It is recommended that you have broadband (Cable, FIOS, DSL, etc.) internet speeds to access your course video and multimedia content.
* Students should also update to the newest version of whatever browser you are using as well as the most up-to-date Flash plug-in. The following browsers are recommended: Chrome 75 or higher, Firefox 68 or higher, or Safari 12 or higher. Be sure to check your browser version often as they are frequently updated and the above information may become out of date.
* Students will need a computer (laptop, desktop, or tablet) with a webcam or smartphone with a camera for participation in any scheduled synchronous web class sessions and in-class assignment presentations.
* Please visit the [Rutgers Student Tech Guide](https://it.rutgers.edu/technology-guide/students/) page for resources available to all students. If you do not have the appropriate technology for financial reasons, please email Dean of Students deanofstudents@echo.rutgers.edu for assistance. If you are facing other financial hardships, please visit the Office of Financial Aid at <https://financialaid.rutgers.edu/>.

**OTHER COURSE REQUIREMENTS**

**Diver Medical**: Each student must complete a **Diver Medical/Participant Questionnaire** before participating in any in-water skill sessions. Medical clearance for SCUBA diving by a physician may be needed for some students. *All medical forms needing to be signed by a physician must be submitted before the start of any water activities to participate in water/pool sessions. This is a non-negotiable requirement due to the training standards & procedural requirements of the program. Any questions, contact Debby Miller immediately*. **In addition,absences due to illness/injury during the course will require written physician medical approval to resume pool skills training after the illness or injury.**

**Swim Requirements**: Each student will be required to pass a swim test, including a 200-meter/yard swim and a 10-minute tread/survival float without swim aids. The swim is not timed but must be continuous. This assessment for certification will be conducted during the first or second class session.

**COURSE MATERIALS & LAB FEE**

The course fee includes the PADI Open Water Diver academic materials, personal mask & snorkel, and use of all SCUBA equipment required for the course. Personal mask & snorkel will be custom-fitted at the start of pool sessions. Used academic materials are not permitted by training agency standards. Payment of the course materials/lab fee is via student term bills. *The fee does not include 4 open-water certification dives, daily entry admission to the training lake, air fills, or equipment for open-water certification dives.*

**EQUIPMENT REQUIREMENTS**

SCUBA diving is equipment-intensive. The equipment used is designed for life-support & diver safety; there will be no compromise in diver safety. Safety above all will be emphasized, with respect to applied knowledge, equipment, and training.

All equipment is provided as part of the course. Students may use personal equipment, provided that it is appropriate for SCUBA and has proof of annual service (where applicable). Students will have the opportunity to purchase discounted equipment through the university equipment purchase program.

**COURSE SCHEDULE & TOPICS**

The general course topics include introduction: the PADI Open Water Diver Course; being a diver 1, equipment 1, and your skills as a diver 1; being a diver 2, equipment 2, and your skills as a diver 2; being a diver 3, problem management, equipment 3, and your skills as a diver 3; equipment 4, being a diver 4, using dive computers 4, the underwater world's ambassador, and your skills as a diver 5; and using dive computers 5, being a diver 5, and your skills as a diver 5.

The course is structured to complete the knowledge development portion in the first half of the course with pool sessions starting the first week of class. Pool sessions will be for 6 weeks for 4-hour sessions starting at the scheduled class time. Students are expected to manage their other class schedules to avoid conflict with class & pool sessions.

Class assignments and due dates will be posted on the course Canvas site.

Class 1 Introductions, Overview of Course, Paperwork; Intro to PADI, Mask fitting

Class 2 Pool skills session 1 – Swim & tread assessment; Equipment Orientation & Sizing

Class 3 Dive Physics & Dive Physiology

 Diving Environments & Aquatic Life; Quiz Sections 1,2 & 3

 Pool skills session 2 – Confined water dive 1 & 2

Class 4 Marine Conservation Awareness presentations; Intro to RDP, Quiz Section 4

 Pool skills session 3 – Confined water dive 2 & 3

Class 5 Marine Conservation Awareness presentations; RDP Quiz

 Dive Planning & Decompression Theory; Problem Management & Dive Computers

 Pool skills session 4 – Confined water dive 3

Class 6 Final Quick Review Quiz & DAN

 Pool skills session 5– Confined water dive 4

Class 7 Dive Planning

 Pool skills session 6 – Confined water dive 5

**READING, ASSIGNMENTS AND HOMEWORK**

Completion of course assignments is mandatory. To succeed in this course, students are *required* *to do* *all assigned online readings, watch video segments, & complete section exercises, knowledge reviews, and quizzes* ***before class sessions****.* Assigned reading must be done on time to participate in class discussions according to due dates. Homework and quizzes are due at times posted on Canvas. Late submission of assignments will not be accepted unless arrangements are made beforehand with the instructor. Completion of assignments is critical to safe diving practices and the application of theory to diving environments. Late assignment submissions will have 5 pts deducted from the assignment grade.

**Participation and Attendance**

Class attendance is mandatory and required for successful learning. Students are expected to attend all classes; if you miss class, please use the University absence reporting website <https://sims.rutgers.edu/ssra/> to indicate the date and reason for your absence. An email is automatically sent to the instructor. Unexcused absences will result in a loss of participation credit; excused absences (i.e., those with acceptable documentation of an emergency/illness) will not result in a point loss. Failure to use the absence reporting system will result in unexcused absences.

Students earn credit for class attendance and actively engaged participation. Students are required to participate and perform the required skills. These are part of the course grade. Due to strict training standards governed by PADI Worldwide, the program must be conducted in a specific chronological sequential order mandated by PADI. It is not possible to make up missed sessions during the next class due to these standards.

If you are late you may not be allowed to participate in skill sessions and will be required to schedule a makeup session(s). Arriving late, leaving early, cell phone use, as well as any other disruption of class will lower student attendance/participation grade, compromise diver safety, and impact fulfillment of certification skill requirements.

**Absences due to illness or injury will require written physician medical approval to resume confined water training (pool sessions) after the illness or injury. Students will be responsible for obtaining this approval in a timely fashion to not fall behind in skills training.**

**Please note:** The policy for missed classes, quizzes, and exams is to provide a fair opportunity to make up missed information, a quiz, or an exam*.* Regardless of excused absences, all diving performance requirements, written quizzes, & exams must be successfully completed to meet the requirements for final PADI certification.

**Knowledge Assessment Quizzes and Exams**

Completion of course assignments is mandatory. It is expected that students will check the course schedule and complete assignments on time, including homework, presentations, papers, quizzes & exams. Makeup exams maybeoffered to students with verified emergencies, arranged as needed.

**EXAM AND QUIZ POLICY**

PADI quizzes and exams must be passed with a grade of 75% or higher to meet the knowledge development requirements for the certification. If students score below 75% they are allowed to make up the quiz/exam until knowledge mastery is achieved. *However, the first attempt of a quiz or exam will be used to calculate the student’s academic course grade.*

A final knowledge assessment exam will be completed online during the eLearning session. All exams will be closed book/notes on the honor system. A final in-person Quick Review assessment will be given in class.

**COURSE GRADING**

Grades will be based on the total points that you obtain from the following areas: written assignments, papers, presentations, class discussions & participation, quizzes, and written exams. Assignments to be graded, including due dates and grade distribution/percent value of each assignment will be posted on the course Canvas site. Your total points will be divided by the total points for the class to determine final grade.

PADI Knowledge Review Homework 20%

Assignments & Quizzes 15%

PADI Final Exam & RDP Exam 10%

Papers & Presentations 15%

Class Participation/Attendance 10%

Water Skills & Confined Water Skills 30%

Your total points will be divided by the total points for the class. Your final grade will be based on the standard undergraduate grading scale using the following percentage breakdown:

90-100% = A 80-89% = B 70-79% = C 60-69% = D <60% = F

**Respect People’s Time Policy**

This program is very gear-intensive, and because of that, it takes time to set up and break down gear at the beginning and end of each class. To respect your time, your classmates’ time, and your Instructors’ time, students will need to have gear set up and ready to go by the start time of class. If you are late, you will not be able to participate in the day’s class. Your instructor(s) will make every effort possible to have the gear locker open 15-30 minutes before every pool session to give you early access to the equipment. On classroom days, the same rules apply, seated by class start time.

**BEHAVIOR**

This is an experiential learning course, and the instructors expect that students will act responsibly whether in the classroom, poolside, or in the water. Disruptive behavior that interferes with other student’s learning or compromises safety will result in suspension from class. All mobile phones, audio playing devices, etc. are to be kept off during class periods. No browsing the internet, text, or email during class.

**POOL MAKE-UP POLICY**

Due to the PADI training standards and procedures, all scuba skills must be mastered in a specific sequential order. Therefore, if the previous session is missed students cannot participate in the following pool session unless the missed session is made up. **The course has limited specific reserved pool time contracted for Basic Scuba Diving courses**. Based on the unique nature of the confined water (pool) session requirements for scuba diving courses and limited pool availability, the following make-up policy is in effect:

* The instructor will determine, consistent with the course syllabus, the need for pool makeup and will establish the deadline for that makeup
* The instructor will schedule the specific time for each makeup consistent with instructor and pool availability.
* Students will make themselves available for scheduled makeup, except for conflicts with other academic classes.

**CERTIFICATION INFORMATION**

The course grade is separate from a diving certification. Certification is given through separate participation in the required open water dives for PADI Open Water Diver certification. Certification performance requirements are evaluated by certifying Instructor(s) per PADI training standards. Certification dives with Rutgers require separate registration and fees. Certification dives can be completed locally between June - October based on available schedules.

**ACADEMIC INTEGRITY POLICY**

All students are expected to know and follow the academic integrity policy of Rutgers University. Violations include: cheating, fabrication, plagiarism, denying others access to information or material, and facilitating violations of academic integrity <http://nbacademicintegrity.rutgers.edu/home-2/academic-integrity-policy>

**Honor pledge:**

All students will need to sign the Rutgers Honor Pledge on every major exam, assignment, or other assessment as follows: **On my honor, I have neither received nor given any unauthorized assistance on this examination (assignment, paper, quiz, etc.).**

**Optional learning tools can be located at**:

**Learning Centers**: <https://rlc.rutgers.edu/>

**Academic Advising for SAS students**: <https://sasundergrad.rutgers.edu/advising/advising>

**Online Learning Tools from Rutgers University Libraries** including Rutgers RIOT, Searchpath and RefWorks <http://www.libraries.rutgers.edu/tutorials>

**STUDENT-WELLNESS SERVICES:**

**Counseling, ADAP & Psychiatric Services (CAPS)**

**(848) 932-7884 / 17 Senior Street, New Brunswick, NJ 08901/** [**http://health.rutgers.edu/medical-counseling-services/counseling/**](http://health.rutgers.edu/medical-counseling-services/counseling/)

CAPS is a University mental health support service that includes counseling, alcohol and other drug assistance, and psychiatric services staffed by a team of professionals within Rutgers Health services to support students’ efforts to succeed at Rutgers University. CAPS offers a variety of services that include: individual therapy, group therapy and workshops, crisis intervention, referral to specialists in the community, and consultation and collaboration with campus partners.

**Crisis Intervention :** <http://health.rutgers.edu/medical-counseling-services/counseling/crisis-intervention/>

**Report a Concern:** [**http://health.rutgers.edu/do-something-to-help/**](http://health.rutgers.edu/do-something-to-help/)

**Violence Prevention & Victim Assistance (VPVA)**

**(848) 932-1181 / 3 Bartlett Street, New Brunswick, NJ 08901 /** [**www.vpva.rutgers.edu/**](http://www.vpva.rutgers.edu/)

The Office for Violence Prevention and Victim Assistance provides confidential crisis intervention, counseling and advocacy for victims of sexual and relationship violence and stalking to students, staff and faculty. To reach staff during office hours when the university is open or to reach an advocate after hours, call 848-932-1181.

**Disability Services**

 (**848) 445-6800 / Lucy Stone Hall, Suite A145, Livingston Campus, 54 Joyce Kilmer Avenue, Piscataway, NJ 08854 /** [**https://ods.rutgers.edu/**](https://ods.rutgers.edu/)

Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where the student is officially enrolled, participate in an intake interview, and provide documentation: <https://ods.rutgers.edu/students/documentation-guidelines>. If the documentation supports the request for reasonable accommodations, your campus’s disability services office will provide a Letter of Accommodation. Please share this letter with your instructor and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form on the ODS web site at: https://ods.rutgers.edu/students/registration-form.