Course Title: Recompression Chamber Operations
Course Number: EOC 2714C
Prerequisites: Nationally recognized certification as a Rescue diver.
Credit Hours: 2.0
Contact Hours: 45 (Lecture & lab)
Class Meeting Times: Lecture: 4:00 – 6:45pm in M-321
Class Method: Traditional classroom course (class meets in person)
Instructor: Barry Lawson
Email: Barry.Lawson@fkcc.edu
Phone: 305-481-7156
Office: M-312
Office Hours: Tuesdays 3:00 – 4:00pm or by appointment
Course Description: This course is not ordinarily counted in the A.A. degree. Provides training in the theory and application of recompression chamber operations. Nationally recognized certification as a rescue diver or permission of the instructor is a requirement for enrollment in this course and will be verified by the instructor at the first class.
Course Objectives: Upon completion of the course, the student will be able to demonstrate knowledge—by successfully answering questions on an objective examination—of the following topics:
1. Describe Boyle’s law as applied to recompression chamber operations
2. Describe Dalton’s law as applied to recompression chamber operations
3. Calculate air system requirements for operating a recompression chamber
4. Demonstrate use of dive tables and treatment tables as applied to recompression chamber operations
5. Demonstrate a working knowledge of safety requirements, markings, and air system requirements for safe operations of a recompression chamber.
6. Describe the dangers of oxygen toxicity in the diving environment.
### REQUIRED TEXTBOOK
Recompression Chamber Life Support Manual by Dick Rutkowski.
U.S. Navy Dive Manual Revision 6. Chapters 1, 2, 3, 9, 20, 21. Appendix 5 A / B / C.

### REQUIRED MATERIALS
- Calculator
- Pencil
- Cotton only clothing for chamber dive

### PROPOSED COURSE SCHEDULE

Please note: The course schedule is subject to change to meet the needs of the course and its students. If you miss a class or lab, it is YOUR responsibility to stay current and/or make up any missed activities (which may involve extra cost).

<table>
<thead>
<tr>
<th>Date</th>
<th>Lecture Topics</th>
<th>Homework</th>
<th>Student Assessment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aug 26</td>
<td><strong>Class 1</strong> Intro and paperwork. Tour and familiarization of chamber facility. Chamber history in dive medicine. Why recompress?</td>
<td>TBA</td>
<td>Class Participation</td>
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<tr>
<td>Aug 31</td>
<td><strong>Class 2</strong> Pressure values. U.S Navy tables</td>
<td><em>Homework: U.S. Navy Manual CH.1 History of Diving, RCLSM Dalton’s law.</em></td>
<td>Test 1 Chambers</td>
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<tr>
<td>Sept 2</td>
<td><strong>Class 3</strong> Chamber overview. Chamber set up and break down procedures, cleaning, sanitizing agents, air system, panel, Internal/external chamber fittings. Gauges, BIBS, O2 monitor, CO2, communications.</td>
<td>Review to date <em>RCLSM CH 1</em></td>
<td>Test 2 Pressure values</td>
</tr>
<tr>
<td>Sept 16</td>
<td><strong>Class 5</strong> Review William Henry’s law, Charles/ Joseph Louis Guy-Lucas’s law, Chamber practice.</td>
<td><em>Homework : USN Ch. 3 RCLSM CH 2</em></td>
<td>Test 4 Gas laws</td>
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<tr>
<td>Sept 23</td>
<td><strong>Class 6</strong> Review A&amp;P, Tympanic membrane, Middle ear squeeze, reverse middle ear squeeze, round/oval ear rupture, vestibular paroxysmia, alternobatic vertigo. Sinus squeeze, reverse sinus squeeze, tooth squeeze, Cardio-pulmonary-vascular system, PVO, bubble trouble. Pulmonary over inflation, chokes, mediastinal and subcutaneous emphysema, pneumothorax, tension pneumothorax. Pneumopericardium,</td>
<td><em>Homework :USN Ch. 3 RCLSM CH 3</em></td>
<td>Test 5 PPO</td>
</tr>
<tr>
<td>Date</td>
<td>Class</td>
<td>Description</td>
<td>Reading/Exam</td>
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<tr>
<td>Sept 30</td>
<td>Class 7</td>
<td>Mid-Term</td>
<td>Class Participation</td>
</tr>
<tr>
<td>Oct 7</td>
<td>Class 8</td>
<td>Review. Physiological implications of oxygen and oxygen life support ranges. Oxygen toxicity. Hypoxia. Chamber practice.</td>
<td>RCLSM CH 4</td>
</tr>
<tr>
<td>Oct 7</td>
<td>Class 9</td>
<td>Review Treatment tables, Bailout tables, delays on descent/ascent, timekeeping, gas therapy mixes. Chamber practice.</td>
<td>RCLSM CH 5</td>
</tr>
<tr>
<td>Oct 21</td>
<td>Class 11</td>
<td>Review But I didn't mean to bend the tender. Chamber rules. Day to day maintenance. Check sheets, documentation. Chamber practice.</td>
<td>Homework: TBA</td>
</tr>
<tr>
<td>Oct 28</td>
<td>Class 12</td>
<td>Review communications, Codes and standards for chambers and storage vessels. Chamber practice</td>
<td>Homework: TBA</td>
</tr>
<tr>
<td>Nov 18</td>
<td></td>
<td>Lab makeup</td>
<td>Class Participation</td>
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<tr>
<td>Dec 2</td>
<td>Questions</td>
<td></td>
<td>Class Participation</td>
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<tr>
<td>Dec 9</td>
<td>Class 14</td>
<td>Final</td>
<td>Class Participation</td>
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</tbody>
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**STUDENT EVALUATION AND COURSE POLICIES**

<table>
<thead>
<tr>
<th>Course work</th>
<th>Final Exam</th>
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</thead>
<tbody>
<tr>
<td>69%</td>
<td>31%</td>
</tr>
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</table>

Grade Distribution:
- A 90-100
- B 80-89
- C 70-79
- D 60-69
- F < 60
Exam and Quiz Policy
• Exams are given at the start of class immediately following a Q & A period and must be completed by the end of class. The use of electronic devices is strictly prohibited during exams. A calculator and dive tables may be used.
• Makeup exams may be offered to students with emergencies, but only if they can provide acceptable documentation of the emergency (e.g., hospital admit slip, etc.).
• The instructor reserves the right to change the format of any makeup exams (e.g., to essay questions).
• The final exam cannot be made up for any reason.

Reading Assignments and Homework
• To succeed in this course, you should do all assigned textbook readings prior to class and review class notes, handouts, workbook problems and knowledge reviews regularly.
• Late homework is not accepted. Students who must miss class on a due date can email the assignment by the start of class for full credit.

Participation and Attendance
• Students earn points for each class they attend and participate in. Arriving late, leaving early, and cell phone, as well as any other disruption of class will result in loss of points.
• Unexcused absences will result in a loss of participation points; excused absences (i.e., those with acceptable documentation of an emergency) will not result in point loss.
• Please note that the instructor may withdraw a student from a course for excessive absences (see FKCC Policies below). For our purposes, “excessive absences” is defined as 3 or more unexcused absences.
• Students will be required to make one no-decompression chamber dive to 165FSW. Cotton only clothing must be worn and a Fit to dive medical clearance form provided.

Lab Make-Up Policy
Due to the unique and critical nature of laboratory make-up requirements associated with scuba diving courses the following make-up policy is currently in effect:
• The instructor will determine, consistent with the course syllabus, the need for any lab make-up and also will establish the deadline for that make up.
• The instructor will schedule the specific time for each make-up consistent with staff / student availability.
• Student cost for each make-up is $20.00 per hour for a minimum of 2 hours per student, payable in advance directly to the Dive Facility Manager.

Certification Information
There is no nationally recognized chamber operator certificate. To my knowledge, each chamber runs its own in-house training. This course will however provide you with a working knowledge and hands on experience. An FKCC certificate showing course hours and “hands on” proficiency shall be presented to each student who successfully completes the chamber operator’s course. Fees paid to FKCC guarantee access to training. The Course Syllabus gives requirements for a passing grade. Training is paid for, grades and certifications are earned: Learning is the responsibility of the student.

Students are expected to familiarize themselves with FKCC Policies, which can be found in the current Student Handbook at http://www.fkcc.edu/stuhand1112/index.html.
Class Contract

The Class Contract assignment is my method of ensuring you know what you should expect from me, and what I expect from you. By returning the Class Contract to me, you are acknowledging that you:

a. Understand the policies detailed in this Syllabus.
b. Understand the expectations and due dates listed in the Course Calendar and Assessment Measures.
c. Understand that you will be held accountable to the standards published in this document.
d. The Class Contract must be submitted to the instructor after reading.

By signing my name I acknowledge the above.

Print Name: ___________________________ Date: ______________

Signature: ____________________________________________________________________
NO CELL PHONES.

NO FOOD IN CLASSROOM

TIME KEEPING, DOORS CLOSE @ CLASS START TIME, NO LATE ADMISSION

WEEKLY EXAMS ON PREVIOUS WORK, TOTAL GOES TOWARDS FINAL %

NO MAKEUP FOR UNEXCUSED MISSED EXAMS

MISSED LAB / EXAMS, LAB MAKEUP $40

-3 POINTS FOR EACH UNEXCUSED ABSENCE FROM FINAL GRADE

SPELLING COUNTS

BASIC CALCULATOR FOR TESTS, NO PHONES, iPADS, etc

NO SMOKING OR TOBACCO PRODUCTS IN OR AROUND DIVE INSTRUCTION AREA

By signing my name I acknowledge the above.

Print Name: __________________________ Date: ________________

Signature: _______________________________