Field Applications in Marine Science: Monitoring Caribbean Reef Fish
Course Syllabus

COURSE TITLE
Field Applications of Marine Science: Monitoring Caribbean Reef Fish

COURSE NUMBER
OCB 2107C

PREREQUISITES
OCB 2102C Marine Data Collection

CREDIT HOURS
3.0

CONTACT HOURS
60 contact hours (30 lecture; 30 Lab)

CLASS MEETING TIMES
Online May 12 – June 14; Field Lab June 7-14 (9AM – 5PM)

CLASS METHOD
This course blends traditional face-to-face and online learning. Students are expected to attend classroom sessions on (dates and times) as well as participate in online activities as assigned.

INSTRUCTOR
Dr. Patrick Rice
Patrick.Rice@fkcc.edu
Office # C 221
Phone # 305 – 809-3228

OFFICE HOURS
Wed. 4-5 PM (via online chat)

COURSE DESCRIPTION
The students will learn about the history and importance of reef fish assessment. The course focuses heavily on recognition and identification of Caribbean reef fish species. The students are introduced to a variety of reef fish assessment protocols. The course will focus on the application of the Bhonsack-Bannerot reef fish assessment method during field labs.

COURSE OBJECTIVES
At the completion of the this course students will be able to:
1. Demonstrate a basic understanding of why reef fish are important and why their populations must be assessed.
2. Demonstrate proficiency in Caribbean reef fish identification.
3. Demonstrate a basic understanding of various reef fish assessment methodologies.
4. Ability to proficiently apply the Bohnsack-Bannerot reef fish assessment during field labs.
**REQUIRED TEXTBOOK**  
*Reef Fish Identification*  
**PUBLISHER** New World Publications; 3rd edition (February 2002)  
**AUTHORS** Humann and DeLoach  
**ISBN** 1-878348-2

**REQUIRED DVD**  
*Reef Fish Identification (Interactive DVD)*  
**PUBLISHER** ReefNet Inc.; 4th edition (December 14, 2007)  
**AUTHORS** Humann and DeLoach  
**ISBN** 9780968530078

**PROPOSED COURSE SCHEDULE**

<table>
<thead>
<tr>
<th>Module</th>
<th>Topics</th>
<th>Assignment</th>
<th>Points</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>History of Fish Assessment and Caribbean Reef Fish Identification I (pg. 1 -37)</td>
<td>Q</td>
<td>20</td>
</tr>
<tr>
<td>2</td>
<td>Caribbean Reef Fish Identification II (pg. 38 - 149)</td>
<td>Q</td>
<td>20</td>
</tr>
<tr>
<td>3</td>
<td>Caribbean Reef Fish Identification III (pg. 150 - 259)</td>
<td>Q</td>
<td>20</td>
</tr>
<tr>
<td>4</td>
<td>Caribbean Reef Fish Identification IV (pg. 260 - 377)</td>
<td>Q</td>
<td>20</td>
</tr>
<tr>
<td>5</td>
<td>Caribbean Reef Fish Identification V (pg. 378 – 461)</td>
<td>Q</td>
<td>20</td>
</tr>
<tr>
<td>6</td>
<td>Fish Assessment III: Bohnsack &amp; Bannerot Protocols</td>
<td>CP</td>
<td>10</td>
</tr>
<tr>
<td>7</td>
<td>Review and Midterm Exam</td>
<td>CP; EX</td>
<td>370</td>
</tr>
<tr>
<td>8</td>
<td>Field Lab I (Bonaire): Lecture and Practice</td>
<td>CP, DP</td>
<td>20</td>
</tr>
<tr>
<td>9</td>
<td>Field Lab II (Bonaire): Lecture and Practice</td>
<td>CP, DP</td>
<td>20</td>
</tr>
<tr>
<td>10</td>
<td>Field Lab III (Bonaire): Lecture and Assessment</td>
<td>CP, DP</td>
<td>20</td>
</tr>
<tr>
<td>11</td>
<td>Field Lab IV (Bonaire): Lecture and Assessment</td>
<td>CP, DP</td>
<td>20</td>
</tr>
<tr>
<td>12</td>
<td>Field Lab V (Bonaire): Lecture and Assessment</td>
<td>CP, DP</td>
<td>20</td>
</tr>
<tr>
<td>13</td>
<td>Technical Report</td>
<td>CP; TR</td>
<td>420</td>
</tr>
</tbody>
</table>

*CP = CLASS PARTICIPATION; Q = QUIZ; EX = EXAM; DP = DATA PRESENTATION; TR = TECHNICAL REPORT*

Please note: The course schedule is subject to change to meet the needs of the course and its students. If you miss a class, it is YOUR responsibility to stay current.
STUDENT EVALUATION AND COURSE POLICIES

<table>
<thead>
<tr>
<th>STUDENT GRADE DETERMINATION</th>
<th>FKCC GRADING SCALE</th>
</tr>
</thead>
<tbody>
<tr>
<td>10% 8 Classes Participation @ 10 points each = 80 points</td>
<td>90-100% A</td>
</tr>
<tr>
<td>10% 5 Quizzes @ 20 points each = 100 points</td>
<td>80-89% B</td>
</tr>
<tr>
<td>5% 5 Daily Data Presentations @ 10 points each = 50 points</td>
<td>70-79% C</td>
</tr>
<tr>
<td>35% Midterm Exam @ 360 points</td>
<td>60-69% D</td>
</tr>
<tr>
<td>40% Final Technical Report @ 410 points</td>
<td>Below 60% F</td>
</tr>
<tr>
<td>100% Final Grade (1000 total points)</td>
<td></td>
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</tbody>
</table>

Quiz and Exam Policy

- There are 5 quizzes worth 20 points each. Failure to take a quiz on time will result in a 15% reduction in the final quiz grade. Only absences (i.e. those with acceptable documentation of an emergency) will not result in point loss.
- There is only one exam in this course worth 35% of your final grade. Only excused absences are allowed for make-up of this exam. Failure to take this exam on time may result in a failing grade. Therefore, it is very important to take this exam during the week it is assigned.

Reading Assignments

- This course is very challenging with a substantial amount of reading. Exams and quizzes for this course will be taken directly from reading assignments.
- The field lab in Bonaire will employ protocols directly from reading assignments, therefore completion and comprehension of reading assignments is essential to successful completion of this course.

Data Presentations and Technical Report

- Each day during the field lab a representative from each student team will be required to present the data collected by the team during the days data collection activities.
- Below is a rubric for the technical report. The technical report will be due no later than the last class date.
- Each student will be a part of a team that will write the report. All team members will receive the same grade on the technical report.
- Students will have an opportunity to work on reports during the field lab.
- The technical report is worth 40% of your final grade.
<table>
<thead>
<tr>
<th>Paragraph Topic</th>
<th>Exemplary = A</th>
<th>Proficient = B</th>
<th>Emerging = C</th>
<th>Developing = D/F</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title, Name, Course and Instructor Info, Date submitted</td>
<td>Concise Title w/ appropriate information and all other info present</td>
<td>All components present but long title with weak information conveyed</td>
<td>Any one of the components absent</td>
<td>More than one component absent</td>
<td>5</td>
</tr>
<tr>
<td>Abstract</td>
<td>Concise summary of the introduction/background information, materials and methods, results and major conclusions or discussion topics (&lt;500 words).</td>
<td>All components present but summary does not convey all essential or major topics, objectives, results or conclusions (&lt;500 words).</td>
<td>Any one of the required components absent (&lt;500 words).</td>
<td>More than one of the required components absent and not concise (i.e. &gt; 500 words).</td>
<td>10</td>
</tr>
<tr>
<td>Introduction</td>
<td>All background information on the environmental issue, including where the problem is occurring. What environmental problem or concern does this study address? Clearly defined and strong study objectives. Present appropriate and strong study hypothesis or null hypothesis. Cite all appropriate literature and previous studies.</td>
<td>All components present but does not thoroughly convey information to understand the study primary issue. Problem or concern is not clearly conveyed. Hypotheses or null hypothesis is not strong. References are not the strongest (i.e. reported from grey literature or non-peer reviewed articles when peer reviewed are available).</td>
<td>Any one of the required components missing. Reason for the study is not really clear or the problem is reported. Weak study objectives. Hypotheses not clearly conveyed. References weak, outdated or not cited when necessary.</td>
<td>More than one of the components missing. Reason for the study inappropriate or incorrect. Very weak study objectives or hypotheses presented. References wrong or not cited when necessary.</td>
<td>15</td>
</tr>
<tr>
<td>Materials and Methods</td>
<td>When, where and how the study occurred? What was the study platform (i.e. on a vessel, in a lab, etc.). What type of equipment was used with company/model information in (). What calculations were used? Citing appropriate literature where necessary.</td>
<td>All components present but does not thoroughly convey when, where, or how the study was conducted. Not all equipment used while gathering data reported or company/model info not reported. Not all calculations used reported. Not all method references cited.</td>
<td>Any one of the required components missing. Weak report of when, where and how. Some critical equipment not listed. Weak or inappropriate calculations or calculations used not reported. Method references not cited.</td>
<td>More than one of the required components missing. When, where and/or how not reported. All critical equipment used not reported or wrong equipment used reported. Wrong calculations used. No citations reported or wrong citations reported.</td>
<td>15</td>
</tr>
<tr>
<td>Results</td>
<td>Results presented in text and supported with a variety of strong visual aids such as figures (graphs and charts) and tables. All figures and tables with appropriate titles, labeled axis, and figure/table captions. No discussion information present in this section.</td>
<td>All components present but are weak visualized with figures or tables often mislabeled or with weak figure/table captions. No discussion or conclusions presented in this section.</td>
<td>Any one of the required components missing. Not all results presented and figures and tables with missing or inappropriate titles, axis labels and/or captions. Discussion or conclusions reported here instead of discussion section.</td>
<td>Results missing or reported in text without figures or tables. Discussion or conclusions presented in this section.</td>
<td>20</td>
</tr>
</tbody>
</table>
### Attendance

- Students earn points for each module they attend online.
- I will monitor student attendance and participation during each class session and online via D2L. Students are required to participate in their online course each week as verified by activity within the D2L Learning Management System.
- There will be at least one assignment in this course that is due every week of the semester, unless the College is officially closed for the entire week. These may include discussion forum posts for class participation, exams and quizzes, homework, projects, or a combination of these. I will take attendance each week based on your submission of the assignments that are due that week, so it is important that you submit every assignment on time. If you submit all of the week’s assignments late, you will be marked as absent from class for that week. If at least one assignment is submitted on time each week, you will be marked as present.
- Simply logging into the online classroom without submitting any of the assignments due is not sufficient to count for attendance purposes.
- Students who do not regularly participate in class by submitting the assignments that are due each week are considered absent from the class.
- An instructor may withdraw a student from courses for excessive absences and/or non-attendance up to the 70% point in the semester.

### Class Participation

Class participation is a combination of live class activities/discussions and asynchronous online discussion postings. The online discussion component is defined as posting a minimum number of substantial, separate, and distinct messages to the various Discussion Forums. These discussion board messages must be posted before the deadlines in the Course Calendar to count toward your participation grade.

<table>
<thead>
<tr>
<th>Conclusion</th>
<th>Reintroduction of the issue and questions. What did you learn from the study? Use information from previous studies combined with the results from the current study to explain or discuss why the results occurred. References provide the most recent information on the topic. Support or reject hypothesis presented in the introduction.</th>
<th>All components present but concluding thoughts are open to interpretation. The study topic is not clearly reintroduced. Suggested conclusions plausible but not clearly supported by the results. Supporting references not the most recent studies on the topic. Study objectives or hypothesis not clearly supported or rejected.</th>
<th>No reintroduction of the study topic or issue. Weak explanation of results. Weak conclusion without supporting references from previous studies of similar topics. Study objectives or hypothesis not weakly supported or rejected.</th>
<th>More than one of the required components not reported. Conclusion very weak and not supported by results. References scarce or not reported and not supporting conclusions. No information supporting or rejecting study hypothesis.</th>
<th>25</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bibliography/Literature Cited</td>
<td>All literature used are reported in the proper format (instructors choice). All authors listed with appropriate publication date and source. Title of cited study listed.</td>
<td>All literature reported but not in proper format.</td>
<td>Several references cited in text not reported and/or not in proper format.</td>
<td>No literature cited section.</td>
<td>10</td>
</tr>
</tbody>
</table>
**DISCUSSION FORUMS:** Periodically, under the discussion tab, there will be a question to which you are to post a response during the week.

**For the purposes of this class, a substantial online posting must:**

- Provide a good explanation of a concept or concepts related to the material discussed in the forum, or give a good example of how a concept can be applied, or provide an insightful response to a previous post.
- Be factually correct. The post should help your classmates, and yourself, learn the material.
- **Be at least 150 words in length.** Messages that do not meet this length requirement will earn only a small amount of partial credit, even if they are only one word short.
- Have acceptable spelling and grammar. Although this is not a writing class, this is College. Students should get into the habit of writing complete sentences that are grammatically correct. I don’t expect your grammar to be perfect, but it should be generally correct. Take advantage of the spell check feature in D2L.
- Be your own work. Do not plagiarize from any source (internet, textbook, etc) as the body of your post. Study the concept, and then express it in your own words. Make certain to cite and document your references.
- Other key points:
  - Only messages that meet all of the requirements of a substantial post listed above will earn full credit for participation.
  - It is acceptable (and encouraged!) for more than one student to respond to the same message. The best way to be sure you understand a topic is to try to explain it to someone else.
  - Please use the discussion forums to ask all of the questions you have about the class material. I want you to ask a lot of questions, and these questions will contribute to your class participation grade.
  - Off-topic messages will not count toward your participation grade.
  - If your final average is on the borderline between two letter grades, active participation (posting several messages to each forum, on average) will work to your advantage as I decide which of the two letter grades you have earned.
  - Messages must have content that contributes to the discussion. Messages that contain a few words and merely say “I agree with you” or something similar will not earn any credit.
  - These participation points are the easiest part of your grade to earn, and also the easiest to forget to do. Don't forget!
  - Copying and pasting from any source, even if you cite the source, is not acceptable. You should study the source document and paraphrase what you learned when typing a message.

**To earn 100% for your class participation grade, you must do the following by the dates published in the Course Calendar:**

- Post an introductory message to the class in the Introductions forum.
• Post one substantial message in each discussion forum at any time during the week in which that forum is scheduled. (If two forums are scheduled during the same week, then one message must be posted in each forum.)

• Some extra credit will be given for substantial messages that are posted no later than Wednesday of the week they are due. This is to encourage students to post early in the week, which will help generate a better class discussion within each forum.

• If no substantial messages are posted on time in a forum, it will not be possible to earn 100% for that forum. A small number of messages that are not substantial but do say more than “I agree” or “Good Post!” And are more than 1 or 2 sentences in length will earn some part credit, but not very much.

Academic Honesty & Plagiarism

• Students are expected to respect and uphold the standards of honesty in submitting written work to instructors. Though occurring in many forms, plagiarism in essence involves the presentation of another person’s work as if it were the work of the presenter.

• Any cheating or plagiarism will result in disciplinary action to be determined by the instructor based on the severity and nature of the offense. It is the student’s responsibility to review the College’s policy on Academic Honesty.

Special Needs

• If you have any special needs or requirements pertaining to this course, please discuss them with the instructor early in the term.

• If you have special needs as addressed by the Americans with Disabilities Act (ADA) and need assistance, please notify the Office for Students with Disabilities at 305-809-3292 via email at: karla.malsheimer@fkcc.edu or the course instructor immediately.

• Reasonable efforts will be made to accommodate your special needs.

Students are expected to familiarize themselves with FKCC Policies, which can be found in the current Student Handbook.