

The University of Findlay

Summer 2022

The mission of The University of Findlay is to equip our students for meaningful lives and productive careers.

Course Number: ANSC 448: Tropical Conservation and SCUBA Diving

Credit Hours: 2

Class Time/Place: Loop Abroad Thailand: Session 1: June 11-26; Session 2: June 25-July 10

Prerequisites, Co-requisites and Course Description:

The first part of this course is an introduction to the many animals and ecosystems of Northern Thailand. Students will learn the types of forests and their history, threats, and conservation. Building on their understanding of forest ecology, they will learn about efforts by both the government and non-governmental organizations to protect forests through logging bans, national parks, and accelerated forest recovery techniques. Students will also learn about community perspectives on the forest, including both majority Thai perspectives as well as upland ethnic minority perspectives.

The second part of this course is an introduction to coral reef ecology and conservation. Koh Tao, which means "Turtle Island," is home to some of the best diving in the world, with clear waters, coral reefs, and a huge variety of marine vertebrate species. By the end of the course, students will be able to not only identify some of the marine life commonly found in Thai coral reefs but also complete underwater transects collecting data on these species.

Instructor: Daniel Hayward, MSc

Instructor Contact Information: danielrcsd@gmail.com

Office Hours: upon request

Course Objectives:

The following Learning Objectives will be addressed or assessed as part of the course:

- **Understand** the forest types found in Thailand and the factors that underlie their distribution
- **Analyze** forest succession and how an understanding of forest succession can be applied to implement accelerated forest recovery

- **Analyze** the various stakeholders involved in forest conservation in Thailand and the different ways they view and interact with the forest
- **Understand** basic coral reef ecology and conservation issues in Thailand and globally
- **Understand** how wildlife organizations work to assist endangered and at-risk species, with sharks and sea turtles as case studies
- **Apply** knowledge gained to identify common marine life in Koh Tao reef systems

Recommended Textbooks and Other Materials:

- **You are not required to purchase these texts on your own. All required texts, research articles and information will be provided in class.**
- Loop Abroad's: Tropical Conservation Reader
- Scuba Schools International. *Open Water Diver* (e-book provided by mobile app). Fort Collins, Colorado: 2017.
- Scott, Chad. *The Koh Tao Ecological Monitoring Program, Second Edition*. Koh Tao, Thailand: Conservation Divers Ltd, 2014.
- Materials for notes (notebook and/or laptop, writing utensils, etc.), wrist watch, refillable water bottle, dry bag, sunscreen and insect repellent, bathing suit, rash guard, snacks.

Instructional Strategies:

Case Analysis		Library and Internet Research	x
Debate		Practice/drill	x
Discovery/Independent Research	x	Problem solving	x
Discussion/Questioning/Interviewing	x	Reading assignments	x
Experiential Learning	x	Role playing/simulation games	
Field Experience	x	Service Learning	
Group Presentation		Video/Audio Review and Critique	
Laboratory Experiences		Other	
Lecture	x		

Methods of Assessment: Your course grade will be determined as follows:

Abstracts		Participation	x
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Attendance	x	Peer Evaluation	
Capstone Project		Portfolio	
Case Study		Portfolio Lab Performance	
Exams	x	Presentations	
Group Projects		Professional Evaluation	x
Homework Assignments		Quizzes	
Internet Research		Research project	
Journaling		Other	
Lab Performance	x		
Oral/written review of literature			

Grading: Your course grade will be determined as follows:

Exam: 35%

Assignments: 35%

Class Participation and Performance: 30%

Week 1 15%

Week 2 15%

Grading Scale/Distribution:

Grade	Points	Grading Scale
A	4.00	93-100
A-	3.67	90-92
B+	3.33	87-89
B	3.00	83-86
B-	2.67	80-82
C+	2.33	77-79
C	2.00	73-76
C-	1.67	70-72
D+	1.33	67-69
D	1.00	63-66
D-	0.67	62-60
F	0.00	below 60
U	0.00	

University Honor Code:

Each and every student of the University will adhere to the following Honor Code:

"I will not knowingly engage in any dishonorable behavior, cheat, steal, lie, or commit any act of plagiarism during any academic work, course, or endeavor. If I observe an act which I believe violates the University's Honor Code, I may, at my discretion, report it to the appropriate personnel."

Student Acknowledgement of University Honor Code:

"I acknowledge that I have fully complied or will comply with all aspects of the University's Honor Code in submitting this work."

Student Rights and Responsibilities Statement, Article VIII-Academic Integrity:

<http://catalog.findlay.edu/en/current/Undergraduate-Catalog/Student-Rights-and-Responsibilities-Statement/VIII-Academic-Integrity>

University Diversity Statement:

As part of our commitment to achieve excellence, the University of Findlay values and actively promotes a welcoming and supportive environment that honors the many aspects of diversity. We aspire to foster acceptance of, respect for, and appreciation of all persons in our campus community. We celebrate our commonalities and unique differences, and we acknowledge that diversity broadens learning, stimulates creativity, promotes the exchange of ideas, and prepares our students for meaningful lives and productive careers.

Course Policies and Practices:Attendance and Participation Policy

Students are expected to attend all class meetings for which they are registered. This is regarded as a matter of individual student responsibility. The only excused reasons for absences will be illness that impairs ability to attend and function within the classroom setting or an unavoidable personal emergency.

Students are expected to attend all class sessions on all days of class. It will be the responsibility of the student to contact the course instructor or site director, preferably before the absence, to provide the appropriate documentation and verification for the reason for the absence, and to make arrangements with the course instructor for missed work. Students are responsible for all missed class material. Students may be subject to limited participation in hands-on practice at the instructor's discretion if they have missed the underlying material needed to safely perform the task at hand.

Final Exam Date: Session 1: June 24; Session 2: July 8

Special Services: If you are a student with a disability, it is your responsibility to inform your instructor and register with the Office of Disability Services (ods@findlay.edu) at least one week prior to a needed service so reasonable accommodations can be made.

Course and Instructor Evaluation: Each student is expected to complete the course and instructor evaluation which is sent electronically to the student by the Office of the Registrar. The electronic notification comes in the form of an e-mail from the UF Registrar’s Office with the following subject line: Online survey for the designated course (e.g., BIOL 102).

Last Date of Attendance Policy: Instructors are required to indicate the last known date of attendance when a final grade of “F” or “U” is assigned to a student.

Tentative Course Outline:

This course includes Open Water or Advanced Open Water SCUBA certification to facilitate observations of marine life in ecological context. Certifications are provided through Scuba Schools International. Prior SCUBA experience is not required.

Students with no prior experience have the opportunity to complete one certification - Open Water Diver - over the first three days. Each day, you’ll study and practice skills with your dive instructor in a small group.

Students who are already certified as an Open Water SCUBA diver will spend the first two or three days completing the Advanced Open Water Diver certification.

After students complete either the Open Water and Advanced Open Water certifications, they will join 1-2 dives or snorkel surveys doing ecological monitoring and coral restoration dives with New Heaven’s experienced Research and Conservation team.

Students who have completed Advanced Open Water certifications or higher before the course begins will not have the opportunity to achieve higher certifications during this course, but will start learning and practicing advanced skills related to marine species identification, coral health monitoring, artificial reef construction and maintenance starting on the second day.

The Course Schedule below shows the day-by-day activities of a student with no prior SCUBA experience before joining this course as this will likely be the most common. Students entering with other levels of experience will have modified itineraries.

Sunday	Orientation to Thailand
Monday	Session 1: Forest types Lab Session: Observational hike on Doi Inthanon, Thailand’s tallest mountain
Tuesday	Session 1: Forest degradation, succession, and recovery Lab Session: Hike to monitor conservation plots and tree nursery techniques

Wednesday	<p>Session 1: Holy forests and local forest classification</p> <p>Lab Session: Village visits to learn about rice farming near and in the forest</p> <p>Lab Session: Interview kon muang (Northern Thais) about forest meaning and use</p>
Thursday	<p>Session 1: National Parks from Yosemite to Khao Yai</p> <p>Lab Session: Interview ethnic minorities about forest meaning and use</p>
Friday	<p>Session 1: Ecotourism</p> <p>Zip-lining through a conserved forest</p> <p>Session 2: Buddhist view of nature, a lecture and interview with Ajaan Paw, a Thai monk and teacher</p>
Saturday	<p>Lab Session: Mulberry paper making and orchids</p> <p>Lab Session: Bat observations in Chiang Dao caves</p>
Sunday	Travel Day
Monday - Wednesday Afternoon	Afternoon: SCUBA Open Water or SCUBA Advanced Open Water Course
Wednesday	Session 1: Intro to Marine Biology – Coral Reef Ecology and Evolution
Thursday	<p>Session 1: Ecological Monitoring Program – Invertebrate Indicator Species</p> <p>Lab Session: SCUBA Ecological Monitoring – Invertebrate Survey</p> <p>Session 2: Sea turtle and shark identification and population monitoring</p>
Friday	<p>Session 1: Ecological Monitoring Program – Fish Indicator Species</p> <p>Lab Session: SCUBA Ecological Monitoring – Fish Survey</p> <p>Session 2: Sea turtle and shark identification and population monitoring</p>
Saturday	Travel Day