

CURRICULUM VITAE

Jennifer Woodford Capers

Phone:

Email:

Website: www.jcapers-irsc.weebly.com

Education

B.S. (1999) - Biology from Central Michigan University, Mount Pleasant, MI

Ph.D. (2006) - Biology from The University of Southern Mississippi, Hattiesburg, MS.

Dissertation Title: "Preliminary Qualitative and Quantitative Evaluation of Immunoglobulin Isotypes of the Harbor Seal, *Phoca vitulina*"

Courses Taught

BSC 1005/L	Life Science Lecture and Lab
BSC 1020	Biology for Health Sciences – Lead instructor, developed course for the department (both online and face-to-face).
BSC 2010/L	General Biology I Lecture and Lab
BSC 2011/L	General Biology II Lecture and Lab – Lead instructor for both lecture and lab; wrote a custom lab manual for the lab; lead the department on moving to and OER for the lecture; developed online version of the lab.
MCB 2010/L	Microbiology for Health Sciences Lecture and Lab
BSC 3910	Junior Seminar
PCB 4023/L	Cell Biology & Physiology Lecture and Lab – Lead instructor for both lecture and lab, developed lab IRSC's bachelor program (both online and face-to-face); developed a mammalian cell culture workshop.
PCB 4233	Immunology – Lead instructor, developed course for IRSC's bachelor program (both online and face-to-face).
OCB 1000	Marine Biology
OCE 2001	Introduction to Oceanography

Employment/Experience

2008-Present: Indian River State College in Ft. Pierce, FL

2016-Present: Full Professor at Indian River State College

- Current course load includes: Biology for Health Sciences, General Biology I, General Biology II, General Biology II online, General Biology II Lab, Immunology, Cell Biology and Physiology, Cell Biology and Physiology Lab, Microbiology for Health Sciences, Microbiology for Health Sciences Lab and Marine Biology.
- Wrote custom lab manual for General Biology II Lab.
- Assisted in writing a custom lab manual for the General Biology I lab and Microbiology Lab.
- Led the department in the development of Powerpoints, worksheets, etc. to be used in conjunction with OpenStax Biology (open resource book) for General Biology I and II lectures.
- Developed general biology course for health science majors: Biology for Health Sciences (BSC 1020).

- Lead instructor for the following courses: General Biology II, General Biology II Lab, Immunology, Cell Biology and Physiology, Cell Biology and Physiology Lab.
- Serve on several committees: Learning Assessment Workgroup, Student Awards Workgroup.
- Quality Matters certified.

2016-Present: Department Chair

- Oversee 13 full-time faculty, 60+ adjuncts/TLSs, 3 lab managers, and numerous lab assistants.
- Hire/mentor new faculty and adjuncts.
- Schedule classes for the department each semester (for the Main campus and satellite campuses).
- Attend meetings and college events as needed.
- Organize department activities.
- Hold monthly department meetings.
- Help with the budget.
- Maintained the department's SPOL – Strategic Planning Online.
- Report to the Curriculum Committee – update Guided Pathways for AA and Bachelor programs.
- Developed a mission statement and goals for the Biology Department.
- Led the department in the Summer of 2020 to develop all of our labs to an online format.
- Numerous other duties.

2013-2016: Associate Professor at Indian River State College

- Course Load: General Biology I, General Biology II, General Biology I Lab, General Biology II Lab, Microbiology Lab, Immunology, Marine Biology, Marine Environmental, Current Issues in Marine Environmental.
- Senior Project II – Our biology bachelor students are required to complete a research project (either an internship with one of our research partners or an in-house research project) and present their findings at our semi-annual Undergraduate Research Symposium. I was the lead instructor for this course during this time, helping them to develop their oral and poster presentations.
- Research Experience for Pre-service Teachers (REPT) Program Coordinator – this was a 7 week research experience for science education majors (NSF funded) providing them with the opportunity to participate in ongoing research with local ocean scientists. I was the lead at IRSC that organized the summer program each year, assigned students to their research mentor and assisted their development of a scientific poster and short video. They then presented these at a symposium we coordinated each year during the duration of the COSEE Grant.
- Committee and Workgroup work: Student Awards Committee, Key Performance Indicators (Course Success, I was co-chair of this workgroup).

2009-2013: Assistant Professor at Indian River State College

- Taught the following labs: General Biology, Microbiology, Life Science. Taught the following lectures: General Biology, Life Science, Microbiology, Oceanography, Marine Environmental Science for education majors, Immunology.
- Helped develop the new Biology Bachelor program.

2008-2009: Master Instructor at Indian River State College

- Taught the following labs: General Biology I, General Biology II, A&P I, A&P II and Microbiology.

2007-2008:

Biology teacher at Jensen Beach High School in Jensen Beach, FL. Taught Marine Science and Environmental Science.

2006-2007:

Volunteered with Harbor Branch Oceanographic Institute's Marine Mammal Division in Fort Pierce, FL. Participated in marine mammal rescues, necropsies, sample collection, and other research aspects; was key author on submitted grant proposing research investigating the effects of contaminants on toll-like receptors in marine mammals.

2002 to 2005:

Volunteered in long line survey research cruise each summer in the Atlantic Ocean and Gulf of Mexico with the National Marine Fisheries Service in Pascagoula, MS. Took fin clips, tagged, and released live sharks and obtained vertebrate, gonad, and other tissue samples from dead sharks and fish. Also participated in re-sighting surveys of bottlenose dolphins in the Mississippi Sound.

2000 - 2006:

Teaching assistant; Department of Biological Sciences, The University of Southern Mississippi, Hattiesburg, MS

1998, 1999, and 2001:

Attended classes at the Gulf Coast Research Laboratory (University of Southern Mississippi, Ocean Springs, MS). Classes included marine biology, marine ecology, marine mammals, and marine aquaculture. Participated in activities such as a dolphin necropsy, a species diversity study that was conducted in the Mississippi Sound, toxicology research on blue crabs, and raising larval crabs and larval sheepshead minnows.

1999 - 2000:

Volunteered at Marine Life Oceanarium, Gulfport, MS. Participated in behavioral research studies on Atlantic bottlenose dolphins.

Employment

2008-present:

Indian River State College, Ft. Pierce, FL
Biology Department

2007-2008:

Jensen Beach High School, Jensen Beach, FL
Biology Teacher

2000 to 2006:

University of Southern Mississippi, Hattiesburg, MS
Research Assistant, Teaching Assistant

2000:

Kelly Scientific Services, Midland, MI
Participated in research at Dow Chemical Company in the Neurotoxicology Department

Grants

2010-2017 Center for Ocean Sciences Education Excellence (COSEE Florida) – National Science Foundation, IRSC awarded \$968,000 (Co-PI with 3 partner organizations – total \$2.8 M grant), 5 years.

- Worked on developing oceanography courses geared toward future middle and high school science teachers. Taught both courses – OCB 2010 and OCB 3017.
- Helped develop and implement Research Experience for Pre-Service Teachers (REPT) Program – 7 week research experience for future teachers, paired up with local ocean scientists.

Committee Assignments

Served as a Faculty Representative on the Presidential Search Committee for IRSC (2020)
Learning Outcomes and Assessments Workgroup
Student Awards Workgroup

Professional Societies

Member of Florida Association of Community Colleges

Member of Florida Academy of Sciences

Member of the Association for the Sciences of Limnology and Oceanography

Member of the American Association of University Professors (AAUP)

- Currently serve as a Negotiator and on the Executive Committee for our Chapter

Publications, Abstracts, and Presentations

Capers, Jennifer. 2016. General Biology II Laboratory Manual (1st ed). Plymouth, MI: Hayden-McNeil.

Capers, Jennifer. An Investigation into the Humoral Immunity of the Harbor Seal, *Phoca vitulina*. Presentation at the Smithsonian Marine Station Lecture Series. April 2011.

Capers, Jennifer Woodford, "Purification and Preliminary Qualitative and Quantitative Evaluation of Immunoglobulin Isotypes of the Harbor Seal (*Phoca vitulina*)" (2006). *Dissertation Archive*. 136. https://aquila.usm.edu/theses_dissertations/136

Cetrulo, Brenda, Jennifer Capers, Susan Cook. Connecting Ocean Scientists with Future Educators, COSEE Florida's Research Experience for Pre-Service Teachers. Ocean Sciences Poster Session 2012.

Cetrulo, Brenda, Jennifer Capers, William Tyler, Sue Cook. Moving from Breadth to Depth: Pedagogical Strategies that Enhance Student Learning in Undergraduate Oceanography Courses. Association for Sciences of Limnology and Oceanography 2013 Conference.

Thames, Rachel, Jennifer Woodford, Rhonda Patterson, Frank Moore, Stan Kuczai, and M.A. Solangi. Effects of Illness, Associated Medicines, Age and Time of Day on Diurnal and Nocturnal Behavior of Captive Bottlenose Dolphins (*Tursiops truncatus*). Proceedings of the 32nd Annual Conference of the International Association for Aquatic Animal Medicine, 32:98, 2001.

William, Tyler, Jennifer Capers, Susan Cook. An Ocean Science Education Collaborative for the Sunshine State. Florida Academy of Sciences 2012 Meeting.

Woodford, Jennifer, Bobby Middlebrooks, and Rhonda Patterson. Preliminary Study of the Isolation and Characterization of the Immunoglobulins of the Harbor Seal, *Phoca vitulina*. Proceedings of the 19th Annual Symposium of Graduate Student Research in the Biological Sciences, 19:4, 2003.

Woodford, Jennifer, Bobby Middlebrooks, Rhonda Patterson. Preliminary Study of the Isolation and Characterization of the Immunoglobulins of the Harbor Seal, *Phoca vitulina*. Proceedings of the 34th Annual Conference of the International Association for Aquatic Animal Medicine, 34:70, 2003.

Woodford, Jennifer, Bobby Middlebrooks, Rhonda Patterson. Isolation and Characterization of the

Immunoglobulins of the Harbor Seal, *Phoca vitulina*, and the Development of a Monoclonal Antibody Against Harbor Seal IgA. Presentation given at the Gulf Coast Research Laboratory Graduate Student Symposium. 2004.

Woodford, Jennifer, Bobby Middlebrooks, Rhonda Patterson. An Investigation of the Cross Reactivity of Antibodies Against the Immunoglobulins of Several Mammalian Species with Immunoglobulins of the Harbor Seal, *Phoca vitulina*. Proceedings of the 35th Annual Conference of the International Association of Aquatic Animal Medicine, 35: 118, 2004.

Woodford, Jennifer, Bobby Middlebrooks, Rhonda Patterson. Development of an Enzyme-Linked Immunosorbant Assay (ELISA) using Anti-human IgA Reagents to Determine IgA Levels in the Serum of Several Individuals of the Harbor Seal, *Phoca vitulina*. Proceedings of the 36th Annual Conference of the International Association of Aquatic Animal Medicine, 36: 96, 2005.