Christopher Felege, PhD.

T&L Colle	: Emphasis on ge Science	2018
Univ	ersity of North Dakota	2014
e Educ Life S	ation Fellow in the Sciences	Fellow; 2012
Acad Acad	emy 101 emy 102	Fall 2011 Spring 2012
Mult	iple areas	2011
Chen	nistry	2009
Biolo	ogy	2007
Mast	ers of Science Education	m MEd., 2007
e Biolo Gene Mole	ogy (<i>Dual Options</i> : tic Development and ocular Biochemistry)	B.S., 2005
Serge Opera	eant (E5) ation Iraqi Freedom	1998-2006 2003-2004
University of University of	f North Dakota f North Dakota	2020-present 2011-2020
Gwinnett County Public Schools Biology and Chemistry		2007-2011
	e Educ Life S Acad Acad Mult Chen Biolo Mast e Biolo Gene Mole Serge Oper University of University of Gwinnett Co	T&L: Emphasis on College ScienceUniversity of North DakotaeEducation Fellow in the Life SciencesAcademy 101 Academy 102Multiple areasChemistryBiologyMasters of Science EducationeBiology (Dual Options: Genetic Development and Molecular Biochemistry)Sergeant (E5) Operation Iraqi FreedomUniversity of North Dakota University of North DakotaGwinnett County Public Schools Biology and Chemistry

(c) Courses Taught (Biology Department - University of North Dakota) <u>CONCEPTS OF BIOL (Biol 111) and Lab (Biol 111L)</u> Biol 111 and 111L are Essential Studies courses that emphasis a variety of thinking and reasoning skills used to accomplish a range of civic, professional, and personal tasks that represent the hallmarks of an educated person. By the time students complete these ES courses, they will have encountered opportunities to practice data collection and analysis, and various kinds of thinking and reasoning skills including critical thinking, quantitative reasoning, and creative thinking. These courses offered in the UND ES curriculum provide a broad and diverse

perspective on how human beings think and feel, solve problems, express ideas, and create and discover new knowledge. Simultaneously, students acquire essential intellectual skills: students are challenged to collect and analyze data, think critically, communicate effectively both orally and in writing, and increase their ability to engage with different cultural perspectives in a diverse world. After successfully completing these courses, students should be able to: *critically* think and reason, consider a diversity of perspectives and values, communicate in a civic, academic, and professional setting, and evaluate information for effective, efficient, and ethical use particularly related to key biological issues influencing human society.

CONCEPTS OF BIOL (Biol 111) and Lab (Biol 111L) Online

Biol 111 and 111L ONLINE are also Essential Studies courses with the same emphasis and ES qualifications described above, but in an online and asynchronous setting.

GENERAL BIO II (Biol 151)

Spring 2016 - present

Fall 2012 - present

General Biology II is the second semester course for Biology Major's at UND, and also approved for essential studies (ES) credit. Effective communication, critical and creative thinking, understanding how conclusions are reached in the sciences, as well as breadth of knowledge, are components of this course and ES at UND. This course emphasizes Thinking and Reasoning (ES Goal #1). After completing this course, students should:

- Possess a sound *factual* knowledge of the core concepts in modern biology ranging from the molecular to the ecosystem levels of organization and recognize relationships among these levels.
- Understand the key principles of scientific inquiry, including the role of data collection, analysis, and critical thinking.
- Be able to *critically analyze* and *interpret* data.
- Be able to *communicate* ideas effectively to your colleagues and consider a *diverse* range of perspectives and values.

GENERAL BIO II (Biol 151) Online

Spring 2019 - present Biol 151 ONLINE is also an Essential Studies approved course, and it maintains the same emphasis described above for second-semester Biology majors but in an online and asynchronous setting.

SPECIAL TOPICS (Biol 499)

• My section of Biol 499 Special Topics was brought into existence to solve two problems. First was a dwindling budget within the department, and the second was an increased demand for classroom support as a result of increased Active Learning, especially in Large Enrollment Introductory classes. I began offering this course to upper-level Undergraduates who were interested in working as Teaching Assistants. Weekly meetings were held to review pedagogical practices to provide these students with support and increase their confidence and competence in assisting in the classroom where active learning techniques were being implemented, and where faculty and Graduate TAs were often unable to facilitate the environment effectively because of the large enrollment. Student enrolled increased their Biologically-based content knowledge, and worked on pedagogy, communication, interpersonal skills, and facilitating group interactions.

Spring 2018 - present

(d) Additional Courses Taught (Dept of Teaching and Learning) Models of Teaching (T&L 542)

Models of Teaching focused on providing teachers pursuing a graduate degree with a variety of instructional models for teaching. Social interaction, information-processing, inquiry and behavior were all at the heart of the course. Students developed competency in multiple domains by drawing from fields such as the philosophical foundations of education, psychology of learning, instructional design, educational research, and evidence-based practices to discuss big ideas in education and to develop and refine their own skills at various approaches to teaching that included Behaviorism, Inductive reasoning, Discovery-Based learning, Scientific Inquiry, Constructivist Learning and Social Constructivism, Scaffolding, Problem- and Project-Based Learning, Theories in Teaching and Learning, Activist Teaching, Feminist Pedagogies, and Direct Instruction.

Introduction to Education (T&L 250)

Spring 2020 This course is designed for students exploring the profession of teaching in early childhood, elementary, middle, or secondary schools. It is an introduction to the study of education that explores the foundations of education, how learners differ, and the social and political contexts of schools. Students also were required to complete a classroom field experience, explore related literature, and participate in simulations and peer-teaching. The purpose of the course was to provide students the opportunity to explore the many facets of the teaching profession and to consider its value as a personal career choice. Through reflection on the teacher, the learner, the subject matter, and the context one teaches within, the students were able to begin to develop a personal philosophy of teaching and learning. Because this course is an integral part of the Teacher Education Program, students were expected to approach it with an emphasis on professional development.

(e) Additional Courses Taught (Honors Dept) Advanced Colloquium in the Sciences (Hon 393)

This class was described as an "Advanced interdisciplinary course on varying topics in the sciences". It was designed primarily for students planning to go on into graduate school and/or professional fields such as medicine or research. Those fields require the knowledge, skills, and abilities to read a variety of primary literature, assess the information there, interpret and evaluate it, and then apply it to a variety of situations or circumstances. Initially this is often an overwhelming task which many students struggle with as they transition to professional and/or graduate programs. Additionally, such fields require a *disposition* of continual professional development and life-long-learning. This course was meant to help students think in a deep and meaningful way about what it means to know something from a scientific perspective based on data and evidence, and to understand that the body of knowledge in any science-based field is evolving based on a process that is ongoing. This was accomplished by confronting primary literature in a small-group discussion- and case-based setting. Units included (1) Disease and Vaccination, (2) Diet, Exercise, and Metabolism, (3) Climate Change, and (4) Topics of individual student choice. All were based on current readings selected from primary literature.

Fall 2019

Spring 2020

(f) Publications

- Masteller, E. and C. Felege. (2003). SCUBA diving for *Hexagenia* in the Pennsylvania waters of Lake Erie. In *Refining and implementing and mayfly* (Hexagenia) *metric of the Lake Erie Quality Index*, proceedings of a workshop held 8-9 February 2002 at Heidelberg College, Tiffin, Ohio, ed. K. A. Krieger, pp. 8-9 Ohio Lake Erie Commission, Toledo, Ohio.
- Ellis-Felege, S. N., T. Desell, C. J. Felege. 2014. A bird's eye view of ...birds: combining technology and citizen science for conservation. *Wildlife Professional* 8: 27-30
- Felege, C. and Olson, M. (2015). Online Education: Faculty Perceptions and Recommendations. *National Forum, Focus on Colleges, Universities, and Schools, 9*(1), 1
- **Felege, C.**, Hahn, E. C., Hunter, C., & Gleditsch, R. (2016). Bench, Bedside, Curbside, and Home: Translational Research to Include Transformative Change Using Educational Research. *Journal of Research Practice*, *12*(2), 1.
- Barnas, A., Newman, R., Felege, C. J., Corcoran, M. P., Hervey, S. D., Stechmann, T. J., ... Ellis-Felege, S. N. (2018). Evaluating behavioral responses of nesting lesser snow geese to unmanned aircraft surveys. *Ecology and evolution*, 8(2), 1328-1338.
- Barnas, A. F., Felege, C. J., Rockwell, R. F., & Ellis-Felege, S. N. (2018). A pilot (less) study on the use of an unmanned aircraft system for studying polar bears (Ursus maritimus). *Polar Biology*, 41(5), 1055-1062.
- Felege, C. J. (2018). The Long-Term Significance Of Working As An Undergraduate Teaching Assistant.
- **Felege, C. J.**, Hunter, C., Hunter, J., & Ellis-Felege, S. N. (2018). Pedagogy and practice in STEM field experiences: intersections of student and mentor identity and impacts upon student outcomes. *Journal of Education for Teaching*, 44(4), 514-516.
- Felege, C. J., & Ralph, S. J. (2018). Evaluating the efficacy of a Student-Centered Active Learning Environment for Undergraduate Programs (SCALE-UP) Classroom for Major and Non-major Biology Students. *Journal of Biological Education*, 53(1), 98-109.
- Felege, C., Romsdahl, R., Hunter, J., Hunter, C., & Ellis-Felege, S. (2019). Immersive field experiences lead to higher-level learning and translational impacts on students. *Journal of Environmental Studies and Sciences*, 1-11.

(g) Research Articles Submitted or Nearing Submission

Romsdahl, R., Felege, S., Hunter, J., and **Felege, C.,** Disconnect between Americans' support for renewable energy and need for high-voltage power lines. Submitted to: *Climatic Change* – 15-Sept-2020

Felege C., Felege S., and Hunter C.

A Grounded Theory Investigation of Perceived Long-Term Effects of the Undergraduate Teaching Assistant Experience. Submitted to: *The Journal of the Scholarship of Teaching and Learning* – Submitted August 2020

Felege C.,

Student Perceptions of Undergraduate Teaching Assistants in Student Centered Active-Learning Undergraduate Program (SCALE-UP) Biology Courses to: *AERA Open* – Anticipated submission Jan 2021.

(h) Professional Presentations

S. N. Ellis-Felege, T. Desell, and **C. J. Felege**. Wildlife@Home: conservation outreach using nest cameras, citizen science and computer vision. The North Dakota Chapter of the Wildlife Society Conference. 12-14 February 2014, Mandan, ND (Oral presentation).

S.N. Ellis-Felege, T. Desell, R. Eckroad[†], K. Goehner[†], and **C. J. Felege**. Wildlife@Home: Conservation Outreach using Nest Cameras, Citizen Science, and Computer Vision. The Wildlife Society's 21st Annual Conference, 29 October 2014, Pittsburgh, PA (oral presentation).

S.N. Ellis-Felege, M.P. Corcoran^{*}, R.A. Newman, **C. J. Felege**, A. Barnas, T. Desell, M. Gibbons, and R. F. Rockwell. Surveying Wildlife and Vegetation in Northern Manitoba. Association for Unmanned Vehicle Systems International. 4 May 2015, Atlanta, GA.

S. N. Ellis-Felege, M. P. Corcoran^{*}, R. A. Newman, **C. J. Felege**, A. F. Barnas, and R. F. Rockwell. Executing Science Driven UAS Arctic Research. UAS Summit, September 21, 2015, Grand Forks, ND (Invited Oral Presentation).

S. N. Ellis-Felege, M. P. Corcoran, R. A. Newman, **C. J. Felege**, R. F. Rockwell. Developing UAS Technology for the Applied Sciences and Industry. Robotics Alley, December 1, 2015 Minneapolis, MN (Invited Oral Presentation).

A. Barnas^{*,†}, M. P. Corcoran, **C. J. Felege**, R. F. Rockwell, S. N. Ellis-Felege. Evaluating Behavioral Responses of Nesting Waterfowl to Unmanned Aircraft. The Wildlife Society's 22nd Annual Conference. October 19, 2015, Winnipeg, Manitoba, Canada (Poster presentation).

S.N. Ellis-Felege, R.A. Newman, **C.J. Felege**, A. Barnas[†], S.A. Hervey^{††}, and R.F. Rockwell. UAS work at the Hudson Bay – Surveying Wildlife and Vegetation. Central Flyway Meeting. 1 March 2016. Colorado Springs, CO.

A. Barnas^{*,†}, T. Stechmann, S. D. Hervey, **C. J. Felege**, R. A. Newman, R. F. Rockwell, S. N. Ellis-Felege. Evaluating Behavioral Responses of Nesting Waterfowl to Unmanned Aircraft. Wapusk National Park Symposium, December 1, 2016, Winnipeg, Manitoba, Canada (Oral Presentation).

S. N. Ellis-Felege, A. F. Barnas[†], **C. J. Felege**, T. J. Stechmann[†], S. D. Hervey[†], and R. F. Rockwell. Behavioral Responses of Common Eiders to Unmanned Aircraft Surveys in Northern Manitoba. The 6th International Sea Duck Conference. 9 February 2017, San Francisco, CA (Oral presentation).

S. N. Ellis-Felege*, A. F. Barnas, T. J. Stechmann, **C. J. Felege**, S. D. Hervey, and R.F. Rockwell. Behavioral Responses of Common Eiders to Drone Surveys. North American Duck Symposium. 30 August 2019, Winnipeg, Manitoba, Canada (Invited Oral Presentation).

(i) Other Research Activities • American Perceptions of High Voltage Powerlines (HVPLs) 2018 - present • Ducks Unlimited work on Immersive Prairie Experience 2018 - present • University of North Dakota: Scholarship of Teaching and Learning • Translational Research with Dr. Cheryl Hunter in EFR 2016-present • Undergraduate Teaching Assistants 2015 - present • Graduate Teaching Assistant 2015 - present • Active Learning Research 2015 – present • Online Education Research 2014 - present

• University of North Dakota: Field Assistant Summer 2012 - present • Assisted with collection of sharp tailed grouse nesting and telemetry data • Assisted with logistical coordination of technicians, biologists, landowners, and equipment in western North Dakota • Assisted with planning and execution of numerous field-based research projects utilizing unmanned aircraft • University of Georgia: Laboratory Assistant 2005 - 2007 • Assisted with experiments and collection of fungal pathogens on pine trees • Maintained laboratory equipment Tall Timbers Research Station and Land Conservancy Summer 2006 • Assisted with bobwhite surrogate adoption techniques, conducted radiotelemetry, GPS collection of habitat delineations, nest audio recordings, and vegetation sampling Pennsylvania Game Commission: Volunteer Biologists' Aide 2004 - 2005 • Assisted with collection of wetland bird community inventory • Assisted with banding of mourning doves, Canada geese, dabbling ducks Assisted with American woodcock surveys Penn State Erie – The Behrend College: Student Assistant 2001 - 2002 • Assisted with collection and sorting of bottom samples from Lake Erie using SCUBA diving techniques

Penn State Erie – The Behrend College: Student Assistant
 Habitat evaluation for the Iowa Darter

UN UN UN	D Foundation / McDermott Faculty Award for Individual Excellence in Teach D / West Faculty Award for Individual Excellence in Teaching	ning 2014 2016 nominee
(k) ●	Other Activities Supervision and mentoring of Student Teachers through the Department of	2019 -present
•	 On Teaching attendance and Presentation • UND's working lunch related to Problem Based Learning 	2012
•	 Collegiate Learning Assessment (CLA) Academies 101 and 102 Development of Active and Problem Based Learning activities Development and implementation of scoring rubrics 	2011-2012
•	Gateway Rater • Required Constructed Response Writing Test for Gwinnett County	2008 - 2011
•	Georgia High School Graduation Test Tutor • Tutored for science portion of required Georgia High School graduation	2009-2010 testing
•	Gateway Remediation TrainerTutor students for writing test as part of Gwinnett County graduation re-	2009 - 2011 quirements
•	Assistant Swim Coach – Grayson High School	2009-2010
•	Head Swim Coach – Grayson High School	2010 - 2011
•	Drivers Education Instructor • Teach classroom and driving portion of 42-hour course	2010 - 2011
•	Supplemental File Review Team for IEPs • Trained to review Individualized Education Plans (IEPs) for Special Edu	2011 acation students

• Assisted with electro-shocking for fish surveys on local streams

(j) Relevant Awards and Nominations

throughout Gwinnett County