

IDS 2935: The Art and Science of Astrophotography

Quest 2



I. General Information

Primary General Education Designation

- Physical Sciences

Class Meetings

- Spring 2023
- Wednesday, E1, E2, E3 (7:20 – 10:10pm)
- ARCH 0213

Instructors

- Noah H. Rashkind & Elizabeth Lada
- Emails: ufnoah@ufl.edu; elada@ufl.edu
- Noah Rashkind's Office hours: Tuesdays 6-7pm on zoom
<https://ufl.zoom.us/j/98037046285?pwd=SUtZeUdRU2lZUkUvMFRMYTNCZINrZz09>
Meeting ID: 980 3704 6285
Passcode: 341140
- Elizabeth Lada's Office hours: Thursday 1 to 2 pm Bryant Room 211

Course Description

What impacts (both positive and negative) has technological progress had on our ability to view and appreciate the Cosmos, and on our relationship with the natural world, and how do we best adapt to or mitigate unwanted impacts? Human activity has dramatically increased the brightness of the night sky in much of the world, which has cultural, biological, and scientific impacts. We will take a broad perspective in this course and consider some of the consequences, both intentional and unintended, of technical progress upon our understanding and ability to view the Cosmos. We will consider a few specific cases in our discussions. As part of this course, you will acquire the skills to frame and capture your own stunning images of the day and night sky, while gaining a greater appreciation for our place in the Universe. Taking your own astronomical photos is a central component of this course. From a technical perspective, topics discussed will include operation of telescopes, photographic composition, celestial motions, and the physics of the objects that we observe. The sky will be our canvas in this course, and our canvas will also serve as a reminder of how small we all are in comparison to the grand scale of the Cosmos.

Quest and General Education Credit

- Quest 2
- Physical Sciences

Physical Sciences (P)

Physical science courses provide instruction in the basic concepts, theories and terms of the scientific method in the context of the physical sciences. Courses focus on major scientific developments and their impacts on society, science and the environment, and the relevant processes that govern physical systems. Students will formulate empirically-testable hypotheses derived from the study of physical processes, apply logical reasoning skills through scientific criticism and argument, and apply techniques of discovery and critical thinking to evaluate outcomes of experiments.

This course accomplishes the [Quest](#) and [General Education](#) objectives of the subject areas listed above. A minimum grade of C is required for Quest and General Education credit. Courses intended to satisfy Quest and General Education requirements cannot be taken S-U.

Required Readings and Works

Books:

- Thierry Legault (2014). *Astrophotography*, 1st edition. Rocky Nook.

Additional Recommended Readings and Works:

- Woodhouse, Chris (2017). *The Astrophotography Manual: A Practical and Scientific Approach to Deep Sky Imaging* 2nd Edition. Routledge.
- Lodriguss, Jerry (2021). *Smartphone Astrophotography: An Introduction to Photographing the Heavens*. AstroPix LLC.

Articles and websites (links shown below) will be included in Canvas:

Worldwide Light Pollution Map:

- [Worldwide light pollution map, lightpollution.info](http://lightpollution.info)

Impact of Man-Made Satellites on the Night Sky:

- [Starlink Corporate Web Page](#)
- Resnick, Brian (2020). [“The night sky is increasingly dystopian”, Vox, 29 Jan 2020](#)
- Collier, Kevin (2022). [“Starlink internet becomes a lifeline for Ukrainians”, NBC News, 29 Apr 2022](#)
- Young, Chris (2022). [“Could Amazon's satellite service steal the lead from SpaceX's Starlink?”, Interesting Engineering, 14, Apr 2022](#)
- Velazco, Chris (2021). [“The latest space race is all about improving Internet access. Here's what you should know.” Washington Post, 2 Nov 2021](#)
- Zhang, Emily (2020). [“SpaceX's Dark Satellites Are Still Too Bright for Astronomers”, Scientific American, 10 Sept 2020](#)
- Clery, Daniel (2020). [“Starlink already threatens optical astronomy. Now, radio astronomers are worried”, Science, 9 Oct 2020](#)
- Pultarova, Tereza (2021). [“Astronomers ask UN committee to protect night skies from megaconstellations”, Space.com, 27 Apr 2021](#)
- James, Chaneil (2021). [“Dark-coated Starlink satellites are better but not perfect, say astronomers”, Physics World, 13 Jan 2021](#)
- Tobin, Meaghan (2022). [“Just 2% of Starlink users live outside of the West, data suggests”, Rest of the World, 28, Apr 2022](#)
- Pultarova, Tereza (2022). [“Megaconstellations like SpaceX's Starlink may interfere with search for life by world's largest radio telescope”, space.com, 3 Feb 2022](#)

Impact of Light Pollution on Wildlife:

- Stanley, Thomas R., et. Al (2020). [“Brightness of the Night Sky Affects Loggerhead”](#), [Stanley et al. 2020, Frontiers in Marine Science](#)
- [“Light Pollution Effects on Wildlife and Ecosystems”](#), [darksy.org](#)
- [“Sea Turtle Conservation”](#), [darksy.org](#)
- [“Light Pollution Can Harm Wildlife.”](#) [darksy.org](#)

Cultural Impact of the Thirty Meter Telescope (TMT):

- [TMT Observatory Overview](#) and [TMT Science Themes](#)
- [“Mauna Kea and TMT Information Fact Check”](#), [University of Hawaii](#)
- Witze, Alexandra (2019). [“Hawaii Telescope Protest Shuts Down 13 Observatories on Mauna Kea”](#), [Scientific American](#), 22 Jul 2019
- Cannon, Jay (2019). [“‘The Rock’ Joins Hawaiian protesters in demonstration against massive telescope”](#), [USA Today](#)
- Witze, Alexandra (2020). [“How the fight over a Hawaii mega-telescope could change astronomy”](#), [Nature](#), 14 Jan 2020
- Yoshimura, Kailee (2021). [“Astronomers want the Thirty Meter Telescope on a sacred Hawaiian summit. But who is it for?”](#), [Massive Science](#), 20 Jun 2021

Local Light Pollution Impact of the Proposed Northern Turnpike Extension:

- [“Northern Turnpike Extension”](#), [FDOT](#)
- [Newborn, Steve \(2021\). “A northern extension of the Florida Turnpike is moving ahead, despite public opposition”](#), [WUSF](#), 8 Dec 2021
- [Bushman, Heather \(2022\). “Florida Turnpike Extension threatens rural land”](#), [WUFT](#), 2 Feb 2022
- [Callahan, Joe \(2021\). “Meeting about northern Florida Turnpike extension draws hundreds to CF's Levy campus”](#), [ocala.com](#), December 2021
- [Cubbage, Jan \(2022\). “When it comes to a toll road in southwest Marion County, 'no build' is a no brainer”](#), [ocala.com](#), January 2022

Required Materials:

- Cellphone equipped with a camera, or a DSLR camera
- Stellarium Mobile Plus (mobile app)
- SIRIL.org image processing program (free)
- Bluetooth shutter remote (for example, https://www.amazon.com/dp/B09MJHHP69?ref_=cm_sw_r_apin_dp_KPN218RAS3HF5JK6WT2F)
- Flashlight with a red filter (red bicycle light)

Materials and Supplies Fees: n/a

II. Graded Work

Description of Graded Work

Assignment	Description	Requirements	Percentage
Attendance	Requirements for class attendance in this course are consistent with university policies.	See section VI.	15
Class participation	Consistent, informed, thoughtful, and considerate class participation is required. Periodic presentations of photographs to the class, orally describing the work completed from the preceding weeks. Final class presentation is included in this assignment.	See section VI.	15
Photojournal compositions	Concise descriptions of photographic techniques and the properties of the astrophysical objects observed in weekly photojournals.	Weekly entries. Weekly topics are listed within the Annotated Weekly Schedule.	40
Written reflection essays	Reflection essays making compelling cases as to why a specific technology should or should not be developed extensively, and discuss mitigations that should be employed if it is developed.	Four (4) short essays (300-500 words in length), assigned during weeks 9, 11, 12, and 13. Topics are listed within the Annotated Weekly Schedule.	30
Total			100

Grading Scale

For information on how UF assigns grade points, visit: <https://catalog.ufl.edu/UGRD/academic-regulations/grades-grading-policies/>

A	94 – 100%		C	74 – 76%
A-	90 – 93%		C-	70 – 73%
B+	87 – 89%		D+	67 – 69%
B	84 – 86%		D	64 – 66%
B-	80 – 83%		D-	60 – 63%
C+	77 – 79%		E	<60

Attendance and Participation:

Requirements for class attendance and make-up assignments and other work in this course are consistent with university policies that can be found at: <https://catalog.ufl.edu/UGRD/academic-regulations/attendance-policies/>

Attendance and participation in class meetings comprise 30% of your final grade. **Attendance will be 1% each week, and students must attend the entire class to get credit.**

- Consistent, informed, thoughtful, and considerate class participation is required. Periodic presentations of photographs to the class, orally describing the work completed from the preceding weeks. Final class presentation is included as part of this portion of your grade.
- NOTE: If you have personal issues that prohibit you from joining freely in class discussion, e.g., shyness, language barriers, etc., see the instructor as soon as possible to discuss alternative modes of participation. Each category is evaluated on a scale of 0-2. Full credit for the semester requires a cumulative score of 50.

The following rubric will be used to evaluate participation during class discussions:

	High Quality (2)	Average (1)	Needs Improvement (0)
Informed: Shows evidence of having read the readings and/or done the assigned work.	Has grasped all the essential material needed for discussions and participation	Has grasped the basic material but shows some important lapses or superficial attention to the materials	Shows little to no evidence of having read appropriate materials
Thoughtful: Shows evidence of having understood and considered issues raised.	Has given thought and anticipated how to contribute to the discussions and activities	Is thoughtful of responses to questions and discussions	Shows little interest in the issues raised
Considerate: Takes the perspective of others into account.	Engages actively, creatively and respectfully in participating in the class	Is tolerant of the perspectives of others but does not show much interest or engagement in other points of view	Is disrespectful of the views of others

III. Annotated Weekly Schedule

Week	Topics, Homework, and Assignments ¹
Week 1	<ul style="list-style-type: none"> • Topic: Astronomy & Astrophotography Primer: Celestial Motion • Summary: Introduction to basic astronomy and astrophysics principles. Discuss photographic equipment, astronomical targets, and the goals for the course. • Required Readings/Works: Astrophotography, 1st Edition: Chapter 1, 1-23; examine Worldwide light pollution map, lightpollution.info. • Assignment: Photojournal. Composition: Daytime sky with some foreground (Sunrise/sunset).
Week 2	<ul style="list-style-type: none"> • Topic: Astronomy & Astrophotography Primer: Sunset/Sunrise changes over seasons, Physics of Sun. • Summary: Introduction to manual cellphone camera modes, DSLR cameras, cooled CMOS/CCD cameras, and the different types of mounts required to track celestial objects. This lesson will build on the prior week's lesson. • Required Readings/Works: Astrophotography, 1st Edition: Chapter 2, 25-39. • Assignment: Photojournal. Sky photos with mount and shutter remote.
Week 3	<ul style="list-style-type: none"> • Topic: The Moon and Astrophotography Checklist • Summary: Discuss phases of the Moon (Lunar Calendar), Lunar properties, as well as preliminary research methods used in preparation for an observing run. • Required Reading/Works: Astrophotography, 1st Edition: Chapter 5, 79-115. • Assignment: Photojournal. Composition: The Moon
Week 4	<ul style="list-style-type: none"> • Topic: Constellations, Magnitudes and Observing Techniques • Summary: Continue discussion of prior weeks' astronomy and astrophotography primers. Discuss ways to maximize the equipment that you possess to produce the best results. Autofocus, Manual Focus, Filters, Exposure times, Zoom, F-ratios, Steps for Focusing with a Bhatinov Masks, Focus Through Trial and Error Exploring how exposure time and camera gain (ISO) can impact your image. • Required Reading/Works: Astrophotography, 1st Edition: Chapter 4, 61-77. • Assignment: Photojournal. Composition: Constellations
Week 5	<ul style="list-style-type: none"> • Topics: Sky Brightness and More Observing Techniques • Summary: Continue with prior discussions on astronomy and astrophotography primers and observing techniques. Sky brightness,

¹ In-class assignments are subject to cooperative weather. In the event of rain or thick cloud cover, class will remain indoors and will focus on observational techniques and/or discussions on topics relevant to that day's lesson.

Week	Topics, Homework, and Assignments ¹
	<p>scattering of Light (both for light pollution and halos around objects), why the sky is blue and sunsets are red, atmospheric turbulence. Introduction to concept of long exposure astrophotography, Time-lapse Imaging, Golden Rule, Gain/Offset, Panoramas, Calibration Frames.</p> <ul style="list-style-type: none"> • Required Reading/Works: Astrophotography, 1st Edition: Chapter 7, 139-151. • Assignment: Photojournal. Composition: Star Trails
Week 6	<ul style="list-style-type: none"> • Topics: Using Telescopes • Summary: Trip to Campus Teaching Observatory • Required Reading/Works: Astrophotography, 1st Edition: Chapter 7, 152-164. • Assignment: Photojournal. Composition: Night Sky + Telescope. Online measurement of sky brightness
Week 7	<ul style="list-style-type: none"> • Topics: History of Astronomy and Astrophotography • Summary: Discussion of the historical importance of the night sky, Planets, Galileo’s Discovery of Moons of Jupiter, Heliocentric Model, and introduction to image processing and magnification • Required Reading/Works: (Revisit) Astrophotography, 1st Edition: Chapter 4, 61-77. • Assignment: Photojournal. Composition: Planets and at-home image processing.
Week 8	<ul style="list-style-type: none"> • Topics: Star Formation • Summary: Discussion on Giant Molecular Clouds as stellar nurseries, Orion Nebula, and use of wide-angle photography. • Required Reading/Works: Astrophotography, 1st Edition: Chapter 7, 165-177. • Assignment: Photojournal. Composition: Pleiades/Orion, or other large/bright target. At-home image processing.
Week 9	<ul style="list-style-type: none"> • Topics: Artificial Space Debris • Summary: Discussion on man-made satellites (Starlink), space debris, impact on astrophotography and space science. Learn to use satellite finding apps to locate man-made satellites, the ISS, and Hubble/Webb space telescopes. • Required Reading/Works: Articles from the “Impact of Man-Made Satellites on the Night Sky” Reading List. Class will be divided in two groups and each group will be assigned half of the articles from the reading list. • Assignment: Photojournal. Composition: Sunset. At-home reflection on Starlink discussion (300-500 words).
Week 10	<ul style="list-style-type: none"> • Topics: Trip to Rosemary Hill Observatory in Bronson, Florida

Week	Topics, Homework, and Assignments ¹
	<ul style="list-style-type: none"> • Summary: Explore the telescopes at RHO and compare sky brightness here to that at the Campus Teaching Observatory. • Required Reading/Works: Astrophotography, 1st Edition: Chapter 7, 178-190. • Assignment: Use planetarium program to plan an observing run; capture a long exposure image of the sky that purposefully includes a satellite/Hubble/Webb/ISS streak.
Week 11	<ul style="list-style-type: none"> • Topics: More Observing Techniques and Post-Processing Techniques, and Impacts of Light Pollution • Summary: Discussion of light pollution and how it impacts sea turtle populations. • Required Reading/Works: All articles from the “Impact of Light Pollution on Wildlife” Reading List. • Assignment: Photojournal. Composition: Free choice. At-home reflection on sea turtle discussion (300-500 words).
Week 12	<ul style="list-style-type: none"> • Topics: Observing Techniques • Summary: Discussion of light pollution impacts on Rosemary Hill Observatory/Campus Teaching Observatory/Your Own Images, and how light pollution has created a disconnect between modern-day civilization and much of our shared history. Incorporating time-lapse photography into your arsenal. • Required Reading/Works: All articles from the “Local Light Pollution Impact of the Proposed Northern Turnpike Extension” Reading List. • Assignment: Photojournal. Composition: Time-lapse video. At-home reflection on light pollution impacts discussion (300-500 words).
Week 13	<ul style="list-style-type: none"> • Topics: Observing Techniques • Summary: Continue with prior discussions on astronomy primer and observing techniques. Continue to explore creative ways to capture the sky. Build on prior weeks’ skills/techniques. Discussion on Mauna Kea cultural impacts of TMT. • Required Reading/Works: All articles from the “Cultural Impact of the Thirty Meter Telescope (TMT)” Reading List. • Assignment: Photojournal. Composition: Free choice. At-home reflection on Mauna Kea TMT discussion (300-500 words).
Week 14	<ul style="list-style-type: none"> • Topics: Observing Techniques • Summary: Discussion on meteor showers. How to know when they happen, how to see them, how to image them. Discussion on the Milky Way & Zodiacal light • Required Reading/Works: Astrophotography, 1st Edition: Chapter 7, 191-203.

Week	Topics, Homework, and Assignments ¹
	<ul style="list-style-type: none"> • Assignment: Photojournal. Composition: Free choice.
Week 15	<ul style="list-style-type: none"> • Topics: Photojournal Presentations • Summary: Class discussion on the techniques acquired and honed during the course, what you learned, how you will use what you have learned in the future, and how the course has impacted your appreciation of the visible universe. • Required Reading/Works: N/A • Assignment: Class presentation, discussion on the semester's best astrophotography captures.

IV. Student Learning Outcomes (SLOs)

At the end of this course, students will be expected to have achieved the [Quest](#) and [General Education](#) learning outcomes as follows:

- **Content**

Quest: *Students demonstrate competence in the terminology, concepts, theories and methodologies used within the discipline(s).*

Gen Ed P: *Identify, describe, and explain the basic concepts, theories and terminology of natural science and the scientific method; the major scientific discoveries and the impacts on society and the environment; and the relevant processes that govern physical systems.*

Students will learn fundamental astrophysical principles, including celestial motions, the basic physics of stars, planets and nebulae, and the fundamentals of astronomical observing. The class will learn about the importance of a dark sky for astrophotography, and experience the difference between bright and dark sites. This experience will be used as a starting point for students to understand that technological progress can have unintended consequences. This includes the impact of light pollution upon astronomy, biological systems, and broader culture. Examples may include the impact of Starlink communications satellites and the Florida Turnpike Extension upon astronomy and astrophotography, light pollution on sea turtle populations, and light pollution in general upon our cultural appreciation of the night sky. Another example that will be included is the impact of scientific programs upon local culture, using the example of the debate about construction of the TMT facility on Mauna Kea. (P,Quest - assessed through class participation, photo-journals, and written reflections associated with each topic)

- **Critical Thinking**

Quest: *Students carefully and logically analyze information from multiple perspectives and develop reasoned solutions to problems within the discipline(s).*

Gen Ed P: *Formulate empirically-testable hypotheses derived from the study of living things; apply logical reasoning skills effectively through scientific criticism and argument; and apply techniques of discovery and critical thinking effectively to solve scientific problems and to evaluate outcomes.*

Students will learn to formulate testable hypotheses in planning their observations. For example, they will predict where the best local places to observe will be (testable with sky brightness maps), when objects of interest will be visible, and what exposure times are necessary. Students will analyze both the benefits and consequences of specific technologies, and will consider possible means of mitigating the consequences (as well as the associated costs of these mitigation approaches). Students will measure the sky brightness at various locations and analyze this data. Students will be challenged to investigate and critically evaluate the benefits and consequences associated with one additional technology beyond those discussed in the course.

(P, Quest - assessed through class participation, submitted assignment on sky brightness measurements, and reflections on the benefits and consequences of specific technologies.)

- **Communication**

Quest: *Students communicate knowledge, ideas and reasoning clearly and effectively in written and oral forms appropriate to the discipline(s).*

Gen Ed-P: *Communicate scientific knowledge, thoughts, and reasoning clearly and effectively.*

Students will concisely describe their techniques and the properties of the astrophysical objects that they observed in their weekly photojournals. Students will present their photos to the class periodically and orally describe their work, and will also be required to participate in oral discussions presenting their views on the topics described in the syllabus. Students will be assigned a series of reflection essays (300-500 words in length) in which they are expected to make a compelling case as to why a specific technology should or should not be developed extensively, and discuss mitigations that should be employed if it is developed. The students will be instructed that this essay should be at a level where a reader without expertise on the topic can clearly understand the topic and associated issue. By design, this essay will be making connections between this specific topic and broader society.

(P, Quest – assessed through photojournals, oral presentations and discussions, and reflection essays)

- **Connection**

Quest: *Students connect course content with meaningful critical reflection on their intellectual, personal, and professional development at UF and beyond.*

Students will maintain a photojournal during the course with weekly entries. These journals will include not only the photos and descriptions of the photos, but also reflections on the science and connections to society (such as our ability to see the night sky). These journals will be shared with the class throughout the semester and discussed at the end of the semester.

(Quest – assessed through photojournals, oral presentations and discussions, and reflection essays for connection.)

V. Quest Learning Experiences

1. Details of Experiential Learning Component

This course is by design primarily experiential. Two-thirds of the course time each week will be devoted to hands-on training in astrophotography, including use of the UF observatories, and the weekly assignments require traveling around the local area to explore the night sky. Students will apply the fundamentals of photographic composition and knowledge of the night sky, using their smartphones to take images of solar system objects, constellations, and nebulae. During the first part of the class the in-class instruction will focus upon teaching students to take good photographs, and the class will explore campus together as they take images from various locations. During the latter part of the semester, field trips to the UF Campus Teaching Observatory and Rosemary Hill Observatory will allow students to directly compare bright and dark locations and use telescopes. The assignments outside of class can be done any evening, so conflicts will not be an issue.

2. Details of Self-Reflection Component

There are four key discussion themes planned for the second half of the semester (during the first half the emphasis must be on the basics of astronomy and photography): 1) Impact of Man-Made Satellites on the Night Sky, 2) Impact of Light Pollution on Wildlife, 3) Cultural Impact of the Thirty Meter Telescope (TMT), and 4) Local Light Pollution Impact of the Proposed Northern Turnpike Extension. The main theme is using the concept of light pollution to discuss the combination of benefits and costs associated with any technology. We will have interactive discussions in class where students will share their perspectives on how to balance these considerations and for each topic they must decide for themselves what the appropriate balance may be. They will be required to write reflections after each of these discussions explaining their personal perspective, justifying this perspective, and consider whether there exist alternatives which might be preferable or mitigation strategies that sufficiently address some of the negative consequences.

VI. Required Policies

Attendance Policy

Requirements for class attendance and make-up exams, assignments, and other work in this course are consistent with university policies that can be found at:

<https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx>

Students Requiring Accommodation

Students with disabilities who experience learning barriers and would like to request academic accommodations should connect with the disability Resource Center by visiting <https://disability.ufl.edu/students/get-started/>. It is important for students to share their accommodation letter with their instructor and discuss their access needs, as early as possible in the semester.

UF Evaluations Process

Students are expected to provide professional and respectful feedback on the quality of instruction in this course by completing course evaluations online via GatorEvals. Guidance on how to give feedback in a professional and respectful manner is available at <https://gatorevals.aa.ufl.edu/students/>. Students will be notified when the evaluation period opens, and can complete evaluations through the email they receive from GatorEvals, in their Canvas course menu under GatorEvals, or via <https://ufl.bluera.com/ufl/>. Summaries of course evaluation results are available to students at <https://gatorevals.aa.ufl.edu/public-results/>.

University Honesty Policy

UF students are bound by The Honor Pledge which states, “We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honor and integrity by abiding by the Honor Code. On all work submitted for credit by students at the University of Florida, the following pledge is either required or implied: “On my honor, I have neither given nor received unauthorized aid in doing this assignment.” The Honor Code (<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>) specifies a number of behaviors that are in violation of this code and the possible sanctions. Furthermore, you are obligated to report any condition that facilitates academic misconduct to appropriate personnel. If you have any questions or concerns, please consult with the instructor or TAs in this class.

Counseling and Wellness Center

Contact information for the Counseling and Wellness Center: <http://www.counseling.ufl.edu/>, 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

The Writing Studio

The writing studio is committed to helping University of Florida students meet their academic and professional goals by becoming better writers. Visit the writing studio online at <http://writing.ufl.edu/writing-studio/> or in 2215 Turlington Hall for one-on-one consultations and workshops.

In-Class Recordings

Students are allowed to record video or audio of class lectures. However, the purposes for which these recordings may be used are strictly controlled. The only allowable purposes are (1) for personal educational use, (2) in connection with a complaint to the university, or (3) as evidence in, or in preparation for, a criminal or civil proceeding. All other purposes are prohibited. Specifically, students may not publish recorded lectures without the written consent of the instructor.

A “class lecture” is an educational presentation intended to inform or teach enrolled students about a particular subject, including any instructor-led discussions that form part of the presentation, and delivered by any instructor hired or appointed by the University, or by a guest instructor, as part of a University of Florida course. A class lecture does not include lab sessions, student presentations, clinical presentations such as patient history, academic exercises involving solely student participation, assessments (quizzes, tests, exams), field trips, private conversations between students in the class or between a student and the faculty or lecturer during a class session.

Publication without permission of the instructor is prohibited. To “publish” means to share, transmit, circulate, distribute, or provide access to a recording, regardless of format or medium, to another person (or persons), including but not limited to another student within the same class section. Additionally, a recording, or transcript of a recording, is considered published if it is posted on or uploaded to, in whole or in part, any media platform, including but not limited to social media, book, magazine, newspaper, leaflet, or third party note/tutoring services. A student who publishes a recording without written consent may be subject to a civil cause of action instituted by a person injured by the publication and/or discipline under UF Regulation 4.040 Student Honor Code and Student Conduct Code.