Nuclear Power Plant Reactor Systems 1

ENU 4144, Section 2B45 and 2B44, Spring 2021

T 1250-1340 (UF "Period" 6), R 1250-1445 (UF "Periods" 6-7)

**4144-Synch**: 100% Online (Synchronous) **4144-Synch-99**: 80-99% Online (Synchronous)

Final Exam: April 26, 2021, 0730-0930

## Instructor

DuWayne Schubring, Associate Engineer

315 Materials Engineering Building (MAE). (All office hours will be via e-mail/Zoom.)

352-294-7870

dlschubring@ufl.edu (This is the best way to reach me. The Canyas "conversations" feature is not e-mail. Messages sent via that system will not be acknowledged.)

## Office Hours

Exam Weeks: TBD Other Weeks: TBD

Beginning and end times of office hours will be enforced strictly. If you cannot meet during office hours, appointments are available, though appointments on weekends and days in which no office hours are held are reserved for genuinely exceptional circumstances.

# Description

Three one-hour lectures discussing the basis for light water reactor (LWR) design; the NRC design criteria for LWRs. Study of the major systems, components and performance characteristics of LWRs including fuels, primary and secondary coolant systems, emergency and auxiliary systems.

# Prerequisites

EML 3100 and ENU 4605 and ENU 4001 with minimum grades of C.

# Course Objectives

Following successful completion of this course, the student will have developed an understanding of the domestic nuclear power industry, including:

- Understand the current status of the nuclear power industry and the evolving worldwide nuclear industry:
- Understand how the General Design Criteria (GDC) and Quality Assurance Criteria (QAC) affect nuclear power plant design, construction and operation;
- Be able to describe the nuclear power plant licensing process and the Nuclear Regulatory Commission (NRC) organizational structure and functions.

- Understand and be able to discuss the codes and standards applicable in the design, construction, licensing and operation of a nuclear power plant.
- Understand and be able to describe and compare in detail the reactor core, reactor coolant system, and auxiliary systems including engineered safeguards as well as reactor control, protection and instrumentation systems for typical PWR and BWR nuclear power plants.
- Understand and be able to discuss and compare the relative merits of PWRs and BWRs including comparisons with projected new plants where applicable.

# ABET Professional Component

3 credits Engineering Topics

# Student Outcomes Supported by Course

- 1. an ability to identify, formulate, and solve complex engineering problems by applying principles of engineering, science, and mathematics (medium coverage)
- 3. an ability to communicate effectively with a range of audiences (medium coverage)
- 4. an ability to recognize ethical and professional responsibilities in engineering situations and make informed judgments, which must consider the impact of engineering solutions in global, economic, environmental, and societal contexts (high coverage)
- 5. n/a
- 6. n/a
- 7. n/a

### Text – none

### Course Outline and Schedule

There are 4 blocks for the course.

- Block 1 The United States Federal Government and Nuclear Power (also includes the introductory lecture)
- Block 2 The Pressurized Water Reactor
- Block 3
  - The Boiling Water Reactor
  - LWR Accidents
- Block 4
  - Light Water Reactor Containment
  - Spent Fuel Systems at Nuclear Power Plants
  - The Future of the LWR (AP 1000, EPR, ABWR, ESBWR, Small Modular Reactors)

The day-by-day outline of lecture coverage is to be taken as a draft. HW and Report deadlines will not be moved earlier, but may be moved later. Exam dates will not change, barring university closure or significant coverage delays.

Wk	Day	Date	Due	Material
1	Т	12 Jan		Syllabus and Course Policies
				Block 1 – Introduction to the LWR
1	R	14 Jan		Block 1 – Atomic Energy Commission, Dept. of Energy,
				and the Nuclear Regulatory Commission
2	Т	19 Jan		Block 1 – Regulatory Framework in the USA
2	R	21 Jan	HW 1	Block 1 – Code of Federal Regulations
3	Т	26 Jan		Block 1 – Standards and Codes
3	R	28 Jan	HW 2	Block 1 – Licensing of Reactors
4	Т	2 Feb		Block 2 – PWR Core
4	R	4 Feb	Exam 1	Exam 1
5	Т	9 Feb		Block 2 – PWR Core
5	R	11 Feb	HW 3	Block 2 – PWR Primary Circuit
6	Т	16 Feb		Block 2 – PWR Secondary Circuit
6	R	18 Feb	Report 1	Block 2 – PWR Instrumentation & Controls, Auxilliary
				Systems, and Accident Mitigation
7	Т	23 Feb		Block 2 – PWR Aux. Systems & Accident Mitigation
7	R	25 Feb	HW 4	Block 3 – An Overview of LWR Accidents
8	Т	2 Mar		Block 3 – Three Mile Island 2
8	R	4 Mar	Exam 2	Exam 2
9	Т	9 Mar		Block 3 – Three Mile Island 2
9	R	11 Mar	HW 5	Block 3 – BWR Core and Primary Circuit
10	Т	16 Mar		Block 3 – BWR Stability
10	R	18 Mar	HW 6	Block 3 – BWR Instrumentation & Controls, Auxilliary
				Systems, and Accident Mitigation
11	Т	23 Mar		Block 3 – Wrap-Up of BWR Content
11	R	25 Mar	HW 7	Block 3 – Fukushima Accident
12	T	30 Mar		Block 4 – Light Water Reactor Containment
12	R	1 Apr	Exam 3	Exam 3
13	Т	6 Apr		Block 4 – Light Water Reactor Containment
13	R	8 Apr	Report 2	Block 4 – Spent Fuel Systems at Nuclear Power Plants
14	Т	13 Apr		Block 4 – Introduction to Generation III/III+
14	R	15 Apr	HW 8	Block 4 – Specific Generation III/III+ Reactors
				AP 1000, EPR, ABWR, ESBWR
15	Т	20 Apr		Block 4 – Small Modular (Light Water) Reactors
15	W	21 Apr		No Class (11:59 pm Deadline Only)
16	R	26 Apr	Exam 4	Exam 4

## Grading

There are 900 total, equally-valuable points in the course.

- Exam 1 125 points
- Exam 2 125 points
- Exam 3 125 points
- Exam 4 125 points
- HW 270 points (9 assignments, each 30 points)
- Report 1 60 points
- Report 2 70 points

The final grades will be assigned based on:

• A: 87%+

• A-: 85-86.99% • B+: 83-84.99% • B: 75-82.99% • C: 67-74.99%

• E: < 67%

#### Please note the following:

- 1. I reserve the right to grant higher grades at the end of the course at my sole discretion, including the use of B- and C+. Under no circumstances will grades of C- or any flavor of D be used.
- 2. No single assignment or exam exceeds 14% of your course grade. This emphasizes consistent performance in this course, limits the deleterious effect on your grade of a single poor exam, and allows this course to be conducted without privacy-violating proctoring methods.
- 3. Grading in this course is plus-based. That is, I award you points based on correct steps, rather than deducting points for errors. As a result, a question such as, "Dr. Schubring, why did you take off 2 points here?" is both presumptuous and nonsensical, since you never had the points.
- 4. There is no general protection against double jeopardy. Points are often allocated, particularly on exams, to each specific step and to obtaining the final, correct answer in each problem – a single error will prevent you from earning points at that step and for the final answer.
- 5. Under no circumstances will a homework be accepted after solutions have been released. If you have any form of excuse/accommodation that delays your due date until after the release of solutions, that will be taken as an excused homework for you. The weighting of your other homework will then be increased to ensure homework remains 30% of your course grade.
- 6. Per UF policy, grades are entered into Canvas to enable you to look up grades quickly. These grades are manually copied from other documents. I reserve the right to correct data-entry errors, as well as other errors, until finalization of grades with the registrar.

More information on UF grading policy may be found at:

https://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx

## Grade Appeal

All appeals of grades, including those from clerical/grade-calculation errors, must be made within 1 week of return. (This may be modified for specific assignments near the end of the term. I will announce this via e-mail as needed.) Appeals will be considered for clerical errors and addition errors. Appeals will also be considered with regard to inconsistent scoring.

It is inevitable that scoring of essay answers is somewhat subjective; a margin of error of one point per line-item) is applied for this reason. That is: if you receive a grade of 7/10 on an essay-like question, only those appeals that propose a grade of 9/10 or better will be considered.

Grade appeals must be provided in the following format:

- Provide, in PDF format only, a written summary of which line-item(s) you believe were graded inaccurately. Be as specific as possible. In particular, be clear about page numbers – PDF vs. bottom-of-page page numbers.
- Send your appeal in the form of an e-mail with "ENU 4144" and "Grade Appeal" in the subject line.

You will be informed of the result of your appeal via e-mail reply.

If I believe you are not acting in a good faith belief that more points are deserved, I will deem the appeal frivolous. Requests to change a line-item by only one point will also be considered frivolous. Following two frivolous appeals, your grade appeal privilege through this method will be revoked. Further appeals must be done through the petitions process, which requires formal paperwork and department/program level involvement.

# All Things COVID

## Technology Requirements and Zoom Decorum

All class sessions will occur online, synchronously, via Zoom meetings. To participate fully in the course, you will need a computer or other device with a microphone and the ability to use the Chat and Share Screen features on Zoom.

You should mute yourself unless actively speaking/conversing. You are not required to turn on your video. If you are (1) using a busy internet connection, (2) are further than 300-350 miles from Gainesville (that is, beyond Miami or Atlanta or Pensacola), (3) multitasking in a way that may distract, or (4) likely to be interrupted, please leave it off. If you choose to use a profile image, please ensure that it is in good taste.

#### Required COVID Statement for All Sections

Our class sessions may be audio visually recorded for students in the class to refer back and for enrolled students who are unable to attend live. Students who participate with their camera engaged or utilize a profile image are agreeing to have their video or image recorded. If you are unwilling to consent to have your profile or video image recorded, be sure to keep your camera off and do not use a profile image. Likewise, students who un-mute during class and participate orally are agreeing to have their voices recorded. If you are not willing to consent to have your voice recorded during class, you will need to keep your mute button activated and communicate exclusively using the "chat" feature, which allows students to type questions and comments live.

The chat will not be recorded or shared. As in all courses, unauthorized recording and unauthorized sharing of recorded materials is prohibited.

Only those sessions for which a significant fraction of the class will be unable to attend due to UF/professional/career-related activities will be recorded. Due to the Spring 2021 "Recharge Days" policy, the class session on February 25 will either be recorded or replaced with pre-recorded video(s).

## Required COVID Statement for 4144-Synch99

The following statement applies only to this section. Our only face-to-face session will be Exam 2. Contrary to the following required statement, a classroom has not been assigned. If this section runs, I presume some appropriate space will be found.

We will have face-to-face instructional sessions to accomplish the student learning objectives of this course. In response to COVID-19, the following policies and requirements are in place to maintain your learning environment and to enhance the safety of our in-classroom interactions.

- You are required to wear approved face coverings at all times during class and within buildings. Following and enforcing these policies and requirements are all of our responsibility. Failure to do so will lead to a report to the Office of Student Conduct and Conflict Resolution.
- This course has been assigned a physical classroom with enough capacity to maintain physical distancing (6 feet between individuals) requirements. Please utilize designated seats and maintain appropriate spacing between students. Please do not move desks or stations.
- Sanitizing supplies are available in the classroom if you wish to wipe down your desks prior to sitting down and at the end of the class.
- Follow your instructor's guidance on how to enter and exit the classroom. Practice physical distancing to the extent possible when entering and exiting the classroom.
- If you are experiencing COVID-19 symptoms:

https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html please use the UF Health screening system and follow the instructions on whether you are able to attend class.

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https://coronavirus.ufhealth.org/screen-test-protect/
covid-19-exposure-and-symptoms-who-do-i-call-if/
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## Attendance & Class Conduct

Skip at your peril. Attendance is not considered in the grade. Pursuant to HWCOE policy, the following statement is required: Excused absences are consistent with university policies in the undergraduate catalog

https://catalog.ufl.edu/ugrad/current/regulations/info/attendance.aspx and require appropriate documentation.

However, some materials in the course will not be covered in the notes provided online – only in class. Students are responsible for these materials.

I reserve the right to take attendance to prioritize e-mail assistance.

## Make-Up Work Policies

Late-work excuses (extensions) can be grouped into the categories of professional, medical, and personal.

Professional: Reasonable extensions for job/internship interviews, technical conferences, or other professional/career development reasons should be requested. Most requests are granted, excluding those that provide a student or group of students an unfair advantage, cause significant disruption to the course or grading schedule, or violate some UF policy.

Medical: Extensions will also be granted for (your own) medical reasons – please do not come to class if you are ill. Per UF policy, in the case of medical issues that are frequent or suspiciouslytimed (e.g.; you are repeatedly, suddenly ill at deadlines), I may request a signed note from a physician or similar professional practitioner.

Personal: In addition, UF policies require accommodation for several non-academic, nonmedical reasons. Extensions for these personal issues are generally limited to those mandated by the letter of UF policies. The list of UF-approved personal reasons changes from time to time. If you have a question regarding your personal issue and if it qualifies under one of the excused absence/late-work policies, contact me in advance.

I reserve the right to grant extensions for other personal reasons as rare exceptions to the rule at my sole discretion – advance notice gives you the best chance at a favorable decision. The approval of an extension does not establish precedent for that student (notably, there are some scenarios that I may accommodate only once) or for other students with similar circumstances.

All requests for excused absence or extension must be submitted in writing, preferably via e-mail.

The 12-day rule will be enforced strictly. Note that the count of days is based on a per-student, not per-approved-activity basis.

For the purposes of this course, in the above-referenced list of approved absence (extension) reasons, the word "family" shall be taken to mean your parents, grandparents, great-grandparents (etc.); children, grandchildren (etc.); siblings; aunts/uncles; nieces/nephews; your spouse and the spouse of any of the above; and half- or step- "versions" of the above categories. More distant relatives (a cousin, your spouse's sibling's spouse, etc.), partners (excluding spouses), and pets are not included. Minor illnesses (guideline: anything meriting home care only or care at a walk-in clinic, as opposed to an ER) of family members, including minor children, do not count as serious family emergencies, nor do events such as birthdays, anniversaries, weddings, etc.

Political activities, including protests, demonstrations, and the like are considered personal matters and not generally permitted as reasons for extensions. This includes activities related to nuclear engineering or nuclear power. Exceptions: (1) A student who is pursuing nuclear-related (whether pro- or anti-) politics as a career path may be granted extensions, at my discretion, on condition of providing evidence of bona fide efforts to secure a full-time position or to secure admission to a relevant, non-STEM degree-granting graduate program and (2) activities that are connected to the 2021 ANS Student Conference that do not conflict with a presentation will be taken as related to that professional activity and potentially grounds for extensions.

Further, be advised that any approved reasons for extensions do not reduce the amount of work you are expected to complete, but merely rearranges the timing. For those issues that are predictable (interview, holidays, etc.), you should work ahead to avoid disruption.

## Homework and Reports

Excluding the make-up work policies, above, no late homework will be accepted.

Homework and projects (including mini-projects) must be submitted electronically (via Canvas). The following restrictions apply for electronic submissions:

- Submissions may include multiple files, but only files with the following extensions will be accepted: pdf, xls, xlsx, and .txt.
- If multiple students in a group independently submit electronically, the submission by the student whose name is listed first on the assignment that I post to Canvas will take precedence. (One student must submit the entire HW or report – different students submitting the main narrative and supporting zip archive is not allowed.)

### Planned Homework Topics:

- 1. AEC, NRC, DOE
- 2. CFR
- 3. PWR (Basics)
- 4. PWR (Secondary Circuit and/or Instrumentation and Controls)
- 5. Framework for LWR Accident Analysis
- 6. BWR (Core and/or Primary Circuit)
- 7. BWR (Instrumentation and Controls and/or Auxiliary Systems)
- 8. Containment and/or Spent Fuel
- 9. Generation III/III+ Reactors, excluding SMRs

In Report 1 (an individual assignment), you will be tasked with showing a fairly complex calculation relating to the PWR Core. As part of this activity, you will learn how to identity, document, and justify assumptions as well as how to write up a calculation that can be read, understood, and confirmed by another engineer.

In Report 2, you will apply the accident analysis framework for the LWR to a specific nuclear accident.

#### Collaboration

A small number of Homework assignments will be designed to be done in groups (either selfselected or instructor-assigned), though you may work alone if you prefer. Report 2 may also be a group activity, for which I will assign the groups.

The ground rules for collaboration should be decided by each group through compromise and consensus. However, regardless of the preferences of the group as a whole, each student retains the individual right to privacy and to maintain good mental and physical health. To this end, no student shall be compelled:

- To join a real-name social networking site or modify their existing use of such a site, or
- To accept a 24/7 or other onerous on-call policy.

That is: each member holds a unilateral veto on using Facebook (or some such) for your group's work or for being contacted at all hours of the day and night.

Inter-personal issues within your group stemming from deciding group rules must be brought to me *promptly* for arbitration. This arbitration will focus on the guidelines above and in forming an equitable compromise (essentially, equal marginal/new inconvenience) among group members and not on determining whose activities outside this course (including personal pursuits, situations, and choices) are more meritorious.

No collaboration between groups is permitted.

## **Examinations**

Examination policies have been subject to frequent changes due to the COVID-19 situation. The text below represents my intent at the beginning of the semester. However, be advised that if any UF exam policies change during the term, I reserve the right to change all class exam policies to accommodate the new constraint(s), while minimizing the disruption and additional labor demanded of students (and myself). I will make every reasonable effort to ensure that the use of privacy-violating proctoring software will not be required in this course.

The four exams roughly correlate to the four blocks of the course. However, note that specific accidents will be de-emphasized in Exam 3 and some cumulative material will be present on Exam 4.

For each exam, you will receive an Exam Preview, intended to prepare you for taking the exam (both technically and procedurally). Detailed policies (including grading/curving) are included on this document. The preview will also include the specific topics addressed by the problem (for most problems), the way points are distributed among problems, and a brief list of topics within the scope of the exam. This document will be made available one week prior to the exam, though potentially in a late-draft form.

The criteria for make-up exams are the same as for extensions to other assignments. All make-up exams will be held after the regular exam, as organized with me. Note that conflicts in my proposed make-up times with your personal business will not, in general, be accommodated. No collaboration is permitted during examinations, although you may prepare for these however you choose.

Exams 1, 2, and 3 will be synchronous exams, taken during the Thursday classes indicated in the schedule, above. Exam 4 will be a take-home exam. Examinations are due at the end of the examination period. The most frequent accommodation from the Disability Resource Center is extended time on (synchronous or time-limited) exams. This will occur via extension of available time for the relevant students until after 2:45 pm. Only if an *unavoidable* conflict with a *required* UF activity occurs will an alternate block of time be offered.

UF policy restricts make-up finals to Friday, April 30, 1500-1700, barring a conflict at that time with another make-up in a course of higher number. This rule applies regardless of your personal business, such as travel times. I strongly discourage you from making hard-to-change travel plans such as flight reservations before Friday evening.

In the unlikely event you (1) are unable to complete the exam at the time originally scheduled for allowed reasons, (2) are unable to make the UF-appointed make-up exam time for allowed reasons, (3) do not make-up the exam at some other time prior to the finalization of grades on May 3, and (4) are on pace to pass the course, you will receive a grade of I (Incomplete). In the (also unlikely) case that the first three of these conditions apply but you were on pace to fail the course,

UF policy requires that I assign a failing grade with the notation that you stopped participating before the end of the term. This may have implications on financial aid beyond a simple "E" grade.

## Other Course Policies

#### **Electronic Communication**

The primary means of communication with the class outside of class time will be e-mail listservs. There is one listsery for each section of the class; except for those e-mails that relate only to faceto-face students, all messages will be sent to both listservs (unless the enrollment of one section or the other drops to zero). These listservs will send to your @ufl.edu address only. Any inquiries regarding grading will be directed towards your @ufl.edu address only, per FERPA.

Technical and procedural questions will be answered as a reply to whatever e-mail address you used to send them. If the entire class will benefit from the answer, I may send to the class listservs (either in lieu of or in addition to a direct reply to you, at my discretion). If you do not wish to have a specific e-mail to me regarding technical content or course procedures replied to through the class listservs, you must explicitly state this in that e-mail. In such a case, I will reply directly to you and send a general-purpose announcement to the class listservs, not indicating who caused me to send it.

When sending questions via e-mail, please make sure you provide all the information needed for me to produce an answer or solution. This includes any files on which you are working. (Note: I will not open files from students in the following formats: .ppt, .pptx, .doc, .docx; make a PDF and send that if needed.)

The Canvas platform will be used for file storage, assignment posting, and posting grades. I take no responsibility for downtime of this service, nor for actions of University of Florida staff that affect the website (including Canvas upgrades).

## Letters of Recommendation/Evaluation Policy

To request a letter of recommendation/evaluation (for graduate school or otherwise), you must provide (all in a single e-mail):

- A copy of your UF transcript.
- A copy of a résumé (or CV).
- A copy of the following form with all four circles checked (requests with three or fewer circles checked will be denied):

http://www.registrar.ufl.edu/pdf/ferparelease.pdf.

Letters are typically filed once per week. For students whom I know only through coursework, my letter typically focuses on an estimate of their rank-in-class and on their performance on projects and challenging problems.

I will only file one batch of letters per student during the term, for any student currently enrolled in a class with me. (This policy is designed to keep me from looking up slight changes in your rank/performance multiple times for multiple batches of letters.) I recommend that this batch occur as late as possible in the term to allow me sufficient information (sample size) on your performance to write a useful letter.

I reserve the right to refuse provide a letter for any student and am not obligated to provide a reason for such refusal.

## Syllabus Boilerplate

## Students Requiring Accommodations

Students with disabilities requesting accommodations should first register with the Disability Resource Center (352-392-8565, https://www.dso.ufl.edu/drc) by providing appropriate documentation. Once registered, students will receive an accommodation letter which must be presented to me when requesting accommodation. Students with disabilities should follow this procedure as early as possible in the semester.

#### Course Evaluations

The University of Florida expects students 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.

### Commitment to a Safe and Inclusive Learning Environment

The Herbert Wertheim College of Engineering values broad diversity within our community and is committed to individual and group empowerment, inclusion, and the elimination of discrimination. It is expected that every person in this class will treat one another with dignity and respect regardless of gender, sexuality, disability, age, socioeconomic status, ethnicity, race, and culture.

If you feel like your performance in class is being impacted by discrimination or harassment of any kind, please contact your instructor or any of the following:

- Your academic advisor or Undergraduate/Graduate Program Coordinator
- Robin Bielling, Director of Human Resources, 352-392-0903, rbielling@eng.ufl.edu
- Curtis Taylor, Associate Dean of Student Affairs, 352-392-2177, taylor@eng.ufl.edu
- Toshikazu Nishida, Associate Dean of Academic Affairs, 352-392-0943,nishida@ufl.edu

#### Software Use

All faculty, staff, and students of the University are required and expected to obey the laws and legal agreements governing software use. Failure to do so can lead to monetary damages and/or criminal penalties for the individual violator. Because such violations are also against University policies and rules, disciplinary action will be taken as appropriate. We, the members of the University of Florida community, pledge to uphold ourselves and our peers to the highest standards of honesty and integrity.

## **Student Privacy**

There are federal laws protecting your privacy with regards to grades earned in courses and on individual assignments. For more information, please see:

https://registrar.ufl.edu/ferpa.html

## Campus Resources

#### Health and Wellness

#### U Matter, We Care

Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact umatter@ufl.eduso that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. In case of emergency, call 9-1-1.

#### Counseling and Wellness Center:

http://www.counseling.ufl.edu/cwc, and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.

#### Sexual Discrimination, Harassment, Assault, or Violence

If you or a friend has been subjected to sexual discrimination, sexual harassment, sexual assault, or violence contact the Office of Title IX Compliance, located at Yon Hall Room 427, 1908 Stadium Road, (352) 273-1094, title-ix@ufl.edu

### Sexual Assault Recovery Services (SARS)

Student Health Care Center, 392-1161.

University Police Department at 392-1111 (or 9-1-1 for emergencies), or http://www.police.ufl.edu/

### **Academic Resources**

E-learning technical support, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu

https://lss.at.ufl.edu/help.shtml

Career Resource Center, Reitz Union, 392-1601. Career assistance and counseling.

https://www.crc.ufl.edu/

Library Support, Various ways to receive assistance with respect to using the libraries or finding resources.

http://cms.uflib.ufl.edu/ask

Teaching Center, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring.

https://teachingcenter.ufl.edu/

Writing Studio, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers.

https://writing.ufl.edu/writing-studio/

Student Complaints Campus:

https://www.dso.ufl.edu/documents/UF\_Complaints\_policy.pdf

On-Line Students Complaints:

http://www.distance.ufl.edu/student-complaint-process