

**UNIVERSITY OF FLORIDA**  
**COLLEGE OF MEDICINE SYLLABUS**  
**NEUROSCIENCE**  
**GMS 6705/7795(24459) Advanced Functional and Comparative**  
**Neuroanatomy for Professionals (5 credits)**

Semester: Fall 2021

Delivery Format: Online and On-Campus

Mon, Tues, Wed (2:00 PM – 3:00 PM; L1-101), Fri (2:00 PM – 4:00 PM, CG-67)

**Course Director Names:** Drs. Ron Mandel and Sara N. Burke

**Instructor:** Dr. Karina Alviña

**Graduate Teaching Assistant:** Andrew Moore, B.S.

Room Number: LECTURES will be in MBI L1-101 and Zoom:

<https://ufl.zoom.us/j/93574749960?pwd=dkFNR1BhUkt4SFZTZEFtUmhHZDZNdz09>

LAB sessions will be in Communicore CG-67/68

Email Addresses: (Mandel) [rmandel@ufl.edu](mailto:rmandel@ufl.edu); (Burke) [burkes@ufl.edu](mailto:burkes@ufl.edu); (Alviña)

Office Hours: Dr. Burke will be available on Tues/Wed from 1pm to 2pm. Additional online meetings can be scheduled with Drs. Burke, Mandel, Alviña or Mr. Moore (graduate teaching assistant).

Canvas site: <https://ufl.instructure.com/courses/437502/pages/gms-6705-slash-7796-home-page>

Preferred Course Communications: Canvas or email

Prerequisites: Must be a graduate student in Neuroscience or related discipline (e.g., Psychology, Clinical Health Psychology, Biomedical Engineering, Pharmacodynamics)

**Purpose and Outcome:** Neuroanatomy is the science of how the nervous system is built and how it functions. It is the basis for understanding nearly all aspects of modern medicine and should be a cornerstone for all discovery science and clinical research in the neurosciences. The purpose of this course is to provide graduate students with foundational knowledge of the basic anatomy, organization, and cells that make up the central nervous system in humans, primates, medium-sized quadrupeds, and rodents.

**Course Overview:** Neuroanatomy is a complex but rewarding field of study. The earliest documented interest in this subject appears in an Egyptian script written in the 17<sup>th</sup> century BCE that was likely based on observations made a thousand years earlier. During the 3<sup>rd</sup> century BCE, several Greek scientists, philosophers, and physicians made significant contributions to our understanding of brain structure through dissection, a practice that was outlawed for several hundred years until the Renaissance period. The driving force behind studies of the human brain continues to be our desire to explain changes in human behavior and cognition resulting from injury and disease.

In this course, you will learn the structure and function of all major systems in the central nervous system (brain and spinal cord). Our studies of the anatomy and function of the brain will be complemented by clinical cases and observations in humans. At the end of this course, you will have both a working knowledge of human, primate, medium-sized quadruped, and rodent neuroanatomy, and you will also be able to use this knowledge to explain how disruption of brain structure leads to changes in human behavior and cognition.

### **Relation to Program Outcomes:**

After successful completion of this course, you will have a knowledge base of brain structure and function that will facilitate your graduate research and overall neuroscience training. It is also a goal that successful completion of this course will position students to serve as teaching assistants and/or instructors for a neuroanatomy course in the future.

### **Course Objectives and/or Goals:**

Specific learning objectives will be provided at the start of each lecture and anatomy introduction. Broadly, upon successful completion of this course students will be able to:

- 1) Identify and name all structures provided on the neuroanatomy “hit list.”
- 2) Describe the neuroanatomy and function of all primary sensory and motor systems.
- 3) Describe the basic organization of higher-order cortical function.
- 4) Be able to predict precise lesion locations in the nervous when presented with detailed functional deficits (neurological symptoms).
- 5) Be able to define differences and similarities between functional neuroanatomy of animals and humans.
- 6) Understand how disruption of neural systems translates to changes in human behavior and cognition.

### **Instructional Methods:**

The course will consist of a lecture and neuroanatomy component and exams for each component will be given approximately each month. All lectures will be recorded and made available on the CANVAS site. We ask that students please view instructors as a resource that want to share their love of neuroanatomy with you and help you be a successful researcher in the neurosciences.

It is the instructors' expectation that students taking this course will work on mastering the material presented throughout each week. It is not possible to do well in this course if the time you spend on the course is limited to a few hours on weekends. All exams in this course will utilize LockDown browser technology so it is important that you become

familiar with this technology. You will have a chance to take "practice" quizzes using this technology before taking the first course exams.

### Description of Course Content:

Below is a detailed outline of the course content. This course includes a lecture and an accompanying neuroanatomy section for 5 hours of instruction each week that run concurrently. The lectures and the neuroanatomy content are designed to complement each other.

### Topical Outline/Course Schedule

Week	Day/Date	Topic	Instructor/Readings
1	MON Aug 23	Course Introduction and Cells of the Nervous System	Mandel (lecture), and Burke for Introductions /Ch 1,2,4 in Kandel, Nadeau Ch-3 cycles 1-3
	TUES Aug 24	Basic Development of the CNS	Sarkisian/Ch 52, 53 in Kandel
	WED Aug 25	Blood Brain Barrier, Choroid Plexus and CSF	Mandel/Appendix D in Kandel, Nadeau Ch1 cycle 3, Ch-3 cycle 3-4
	<b>FRI Aug 27 (LAB 1)</b>	<b>Directional terms, Embryology/Brain/Meninges/ventricles, (CG-67)</b>	Mandel/Haines Ch 2, Nadeau Ch 1 cycles 1-2 4-10
2	MON Aug 30	The resting membrane potential	Burke/Ch 6,7 and Appendix A in Kandel, Nadeau Ch 5
	TUES Aug 31	The Action Potential	Burke
	WED Sept 1	Synaptic transmission	Burke/Ch 8, 9, 10 in Kandel
	<b>FRI Sept 3 (LAB 2)</b>	<b>Diencephalon /Basal Ganglia (CG-67)</b>	Mandel/Haines Ch 4, Nadeau Ch 1 cycles 6-9
3	MON Sept 6	<b>NO CLASS - LABOR DAY</b>	
	TUES Sept 7	The Spinal Cord	Mandel/Ch 16, 35 in Kandel, Nadeau Ch2 cycles 11-12
	WED Sept 8	Overview of Somatosensation	Mandel/Ch 22 in Kandel, Nadeau Ch 7 cycles 2,3,5
	<b>FRI Sept 10 (LAB 3)</b>	<b>Spinal cord and sections of the brainstem, somatosensory and motor tracts (CG-67)</b>	Haines Ch 5, 6/ Haines pp188-197, 206-220
4	MON Sept 13	Touch and Proprioception, Receptors, Signal Transduction	Mandel/Ch 21, 23 in Kandel, Nadeau Ch 7 cycle 1
	TUES Sept 14	Pain	Caudel/Ch 24 in Kandel, Nadeau Ch 7 cycles 6-7
	WED Sept 15	Motor pathways	Mandel/Ch 37 in Kandel, Nadeau Ch 6
	<b>FRI Sept 17 (LAB 4)</b>	<b>Cerebellum and basal ganglia (CG-67)</b>	Mandel/Haines pp 241-261
5	MON Sept 20	Motor Pathways 2 and Functional Correlates of Spinal Cord Lesions	Mandel/Haines pp 241-261

	TUES Sept 21	Basal Ganglia	Mandel/Kandel Ch 43
	WED Sept 22	Cerebellum	Mandel/Kandel Ch 42
	<b>FRI Sep 24 (EXAM) LECTURE EXAM I</b>	<b>FRI Sep 24 (EXAM) LECTURE EXAM I</b>	
6	MON Sep 27 <b>(EXAM) NEUROANATOMY EXAM I</b>	<b>MON Sep 27 (EXAM) NEUROANATOMY EXAM I</b>	
	TUES Sep 28	Cognitive control of movement	Burke/Ch 19, 37, 38 in Kandel
	WED Sep 29	Functional Correlates of Forebrain Motor System Lesions	Mandel
	<b>FRI Oct 1 (LAB 5)</b>	<b>Cranial Nerves External/Internal Anatomy (CG-67)</b>	Burke/Haines Ch 3, Nadeau Ch 8
7	MON Oct 4	Cranial Nerves I-VI	Burke/Ch 45 in Kandel
	TUES Oct 5	Cranial Nerves VII-XII	Burke
	WED Oct 6	Chemical Senses: Smell and Taste	McIntyre/Ch 32 in Kandel
	<b>FRI Oct 8 – NO CLASS, homecoming</b>	<b>FRI Oct 8 – NO CLASS, homecoming</b>	
8	MON Oct 11	Horizontal Eye Movements and Pupillary Reflexes	Mandel/Ch 39 in Kandel, Nadeau Ch 8 cycles 3-4, Ch 9 cycle 5
	TUES Oct 12	Functional Correlates of Cranial Nerve Damage	Mandel/Appendix B in Kandel
	WED Oct 13	The control of Breathing	Dr. Arash Tadjalli
	<b>FRI Oct 15 (NTL 1)</b>	<b>NAME THE LESION 1 (brainstem, motor, touch presentations, CG-67)</b>	Mandel
9	MON Oct 18	The Enteric Nervous System	TBD
	TUES Oct 19	Autonomic nervous system	Johnson/ CH 47 in Kandel, Nadeau Ch 11
	WED Oct 20	Therapeutic modulation of peripheral nerves	Burke
	<b>FRI Oct 22 (LAB 6)</b>	<b>Thalamus, Auditory, vestibular, and visual anatomy (CG-67)</b>	Burke/Haines pp 154-173, 262-270
10	MON Oct 25	The Thalamus	Burke
	TUES Oct 26	The Visual System #1	Semple-Rowland/ Ch 26, 27, 28 in Kandel
	WED Oct 27	The Visual System #2	Semple-Rowland/ Nadeau Ch 9
	<b>FRI Oct 29 (EXAM) Lecture Exam 2</b>	<b>(EXAM) Lecture Exam 2</b>	
11	MON Nov 1 <b>(EXAM) Neuroanatomy Exam 2</b>	<b>(EXAM) Neuroanatomy Exam 2</b>	
	TUES Nov 2	The Auditory system	Someya/Ch 30, 31 in Kandel
	WED Nov 3	The Vestibular system	Burke/Ch 40 in Kandel
	<b>FRI Nov 5 (LAB 7)</b>	<b>Cerebrovasculature (CG-67)</b>	Mandel/Appendix C in Kandel
12	MON Nov 8	Arteries and Veins of CNS: aneurysms and territories	Mandel/Nadeau Ch 2

	TUES Nov 9	Stroke	Candelario-Jalil
	WED Nov 10	Language	Mandel/Ch 60 in Kandel, Nadeau Ch 12 cycle 3
	<b>FRI Nov 12 (LAB 8)</b>	<b>Hypothalamus and limbic system (CG-67)</b>	Burke/Haines pp 280-293, Nadeau Ch 12 cycle 4
13	MON Nov 15	Learning and memory – <b>PAPER TOPIC DUE</b>	Burke/Ch 65, 67 in Kandel, Nadeau Ch 12 cycle 5
	TUES Nov 16	Cortical organization of higher-level perception	Burke/Ch 17, 18, 28, 29 in Kandel
	WED Nov 17	Emotion	Burke/CH 48 in Kandel
	<b>FRI Nov 19 (Lecture and NTL 2)</b>	Rewards systems and the neurobiology of addiction <b>Name the lesion 2 (CG-67)</b>	Setlow/CH 49 in Kandel Mandel
14	MON Nov 22	The Hypothalamus and Endocrinology	TBD
14	TUES Nov 23	Neuropathology	Giasson/Ch44 in Kandel
	WED Nov 24	THANKSGIVING BREAK, NO CLASS	
	<b>FRI Nov 26</b>	THANKSGIVING BREAK, NO CLASS	
15	MON Nov 29	Neuroimaging of cognition – <b>PAPER DUE</b>	Febo/Ch 20 in Kandel
	TUES Nov 30	Name the lesion 3	Mandel/Burke
	WED Dec 1	Name the lesion 4	Mandel/Burke
	<b>FRI Dec 3 (NTL and LAB EXAM 3)</b>	<b>NAME THE LESION/LAB EXAM 3</b>	
16	MON Dec 6	Executive Function and the PFC	Burke
	TUES Dec 7	Review and Bonus Discussion	Mandel/Burke/Moore
	WED Dec 8 (last day of class)	<b>LECTURE EXAM III</b>	

### Class Guest Lecturers:

<u>Name</u>	<u>Email</u>	<u>Department</u>
Eduardo Candelario-Jalil	ecandelario@ufl.edu	Neuroscience
Robert Caudle	rcaudle@dental.ufl.edu	Dentistry
Marcelo Febo	febo@ufl.edu	Psychiatry
Benoit Giasson	bgiasson@ufl.edu	Neuroscience
Rick Johnson	rdjohnso@ufl.edu	Veterinary Medicine
Jeremy McIntyre	jmcin@ufl.edu	Neuroscience
Sue Semple-Rowland	rowland@ufl.edu	Neuroscience
Barry Setlow	setlow@ufl.edu	Psychiatry
Matt Sarkisian	msarkisian@ufl.edu	Neuroscience
Shinichi Someya	someya@ufl.edu	Aging
Arash Tadjalli	arash.tadjalli@gmail.com	Pharmacology

### Course Materials and Technology:

**LECTURE (required):** Hudspeth, A. J., Jessell, T. M., Kandel, E. R., Schwartz, J. H., & Siegelbaum, S. A. (Eds.). (2013). *Principles of Neural Science*. McGraw-Hill, Health Professions Division.

(Available on Kindle)

**Neuroanatomy (required):** Haines, D. E. 10<sup>th</sup> Edition (9<sup>th</sup> is also acceptable) (2019). *Neuroanatomy: an Atlas of Structures, Sections, and Systems* (Vol. 153, No. 2004). Lippincott Williams & Wilkins.

### SUPPLEMENTAL READING

We will also be providing you with *Medical Neuroscience* as a downloadable PDF through the CANVAS site. Authors: Stephen E. Nadeau, Tanya S. Ferguson, Edward Valentstein, Charles J. Vierk, Jeffrey C. Petruska, Wolfgang J. Streit and Louis A. Ritz, Saunders 2004, ISBN 0-7216-0249-5 (out of print).

*Atlas of the Human Brain in Section*. By Melville Roberts and Joseph Hanaway, Virginia. Will be made available as a pdf through the Canvas site.

*Neuroanatomy Through Clinical Cases, 2<sup>nd</sup> Edition*. Author: Hal Blumenfeld. Sinauer Associates, Inc. 2010. ISBN 978-0-87893-058-6 We recommend you buy the hardcopy from a friend or a vendor like Amazon because we do not like the eBook interface.

However, if you are interested in the eBook the link is:

<https://redshelf.com/book/673333/neuroanatomy-through-clinical-cases-673333-9781605353975-hal-blumenfeld>

### TECHNOLOGY:

**CANVAS Site:** <https://ufl.instructure.com/courses/379354>

Laptop or desktop computer equipped with microphone and video camera. A microphone and video camera will be used for video conferencing with instructors.

- There is a Canvas app that can be used to access the course using your portable devices. The app is not as good as laptop or desktop computers.
- There are VoiceThread apps that are available for iOS and Android devices that can be used to view and post comments on VTs. While these portable devices are excellent for watching lectures and asking questions, we strongly recommend that you use laptop or desktop computers when working on this course.
- **Installation of LockDown Browser** – Installation instructions will be made available prior to practice practical exams.
- A high-speed internet connection such as DSL or cable. **When using LockDown Browser your computer should be directly connected to the internet rather**

**than accessing using WiFi.** A broadband internet connection is strongly recommended. Slower connections should still be able to access e-Learning, but will take longer to load and will be unreliable when taking tests.

- It is highly recommended that you work with Canvas and VT using either the **Firefox or Chrome Browsers.**
- For specific questions about browser compatibilities and general questions about e-learning at UF please go to <https://wiki.helpdesk.ufl.edu/FAQs/E-Learning>.

For technical support for this class, please contact the UF Help Desk at:

- [Learning-support@ufl.edu](mailto:Learning-support@ufl.edu)
- (352) 392-HELP - select option 2
- [UF eLearning](#)

### **Academic Requirements and Grading**

**Exams and Assignments:** There will be a total of 6 exams that will make up your grade. Three exams will cover the lecture content, 2 exams will be on the neuroanatomy content and will involve identifying structures in gross anatomy or sections. Finally, one exam will be on the name lesion exercises covered in the second half of the semester. There is also an option paper assignment that is to be written in the format of a *Journal of Neuroscience* Journal Club paper: <https://www.jneurosci.org/content/jneurosci-journal-club>. Your paper grade will replace your lowest exam grade.

**Student Paper:** Each student will write one “Journal Club” on a paper of their choice that related to the course content. This will follow the *Journal of Neuroscience* format for Journal Club Papers (<https://www.jneurosci.org/content/jneurosci-journal-club>) and should have three components: a short overview of the background of the reviewed paper, a critical data-based review of the key findings, and a brief summary of the significance of the paper. The Journal Club should focus on the most important results (it is not necessary to discuss each figure), and a successful paper will offer a critical evaluation the results in the context of other work. *Please get approval of our paper topic from an instructor by Nov 15, 2021. This is required in order to get credit for the paper.* The length should be between 1200 and 1500 words. Papers should be submitted through the Canvas site by **5:00 pm on Nov 29, 2021.**

**Note regarding respect for diverse ideas:** At times your instructors may make provocative statements related to course content to spark discussion. We welcome and have respect for dissenting opinions. Moreover, we feel that hearing and sharing diverse ideas is an essential component of the active learning process. Please discuss with course faculty if you ever feel that your ideas are not being heard or respected. All lectures will be recorded and available on CANVAS if discussions ever need to be reviewed.

## Grading:

Requirement	Due date	Points or % of final grade (% must sum to 100%)
Lecture Exam 1	9/24	20%
Neuroanatomy Exam 1	9/27	10%
Lecture Exam 2	10/29	20%
Neuroanatomy Exam 2	11/1	10%
Paper (your paper grade will replace your lowest exam grade)	11/29	
Name the Lesion Exam and Lab Exam 3	12/3	20%
Lecture Exam 3	12/8	20%

## Grades:

Percentage Earned	Letter Grade
93-100	A
90-92	A-
87-89	B+
83-86	B
80-82	B-
77-79	C+
73-76	C
70-72	C-
67-69	D+
63-66	D
60-62	D-
Below 60	E



Please be aware that a C- is not an acceptable grade for graduate students. The GPA for graduate students must be 3.0 based on 5000 level courses and above to graduate. A grade of C counts toward a graduate degree only if based on credits in courses numbered 5000 or higher that have been earned with a B+ or higher.

More information on UF grading policy may be found at:

<http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#grades>

### **Exam Policy:**

Exams will be administered online at the date and time specified on the syllabus. Exam grades will be adjusted by setting the highest score to 100%. Questions that all students get incorrect will be dropped.

You are expected to notify the course directors of any anticipated absences. You should make every effort to take the exams on the days they are scheduled. If extenuating circumstances prevent you from taking a scheduled exam, you will need to schedule an appointment to discuss this with the course directors to identify an alternative exam date.

### **Policy Related to Make-up Exams or Other Work**

Please note: Any requests for make-ups due to technical issues MUST be accompanied by the UF Computing help desk (<http://helpdesk.ufl.edu/>) correspondence. You MUST e-mail the instructors within 24 hours of the technical difficulty if you wish to request a make-up.

### **Policy Related to Required Class Attendance:**

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>

Excused absences must be consistent with university policies in the Graduate Catalog (<http://gradcatalog.ufl.edu/content.php?catoid=10&navoid=2020#attendance>).

Additional information can be found here:

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

### **Student Expectations, Roles, and Opportunities for Input:**

#### **Expectations Regarding Course Behavior:**

We expect all students to be in attendance for every lecture and Neuroanatomy, as well as to participate in class discussions.

#### **Communication Guidelines:**

Please see the NETIQUETTE GUIDE FOR ONLINE COURSES: <http://teach.ufl.edu/wp-content/uploads/2012/08/NetiquetteGuideforOnlineCourses.pdf>

### **Academic Integrity:**

Students are expected to act in accordance with the University of Florida policy on academic integrity. As a student at the University of Florida, you have committed yourself to uphold the Honor Code, which includes the following pledge:

**“We, the members of the University of Florida community, pledge to hold ourselves and our peers to the highest standards of honesty and integrity.”**

You are expected to exhibit behavior consistent with this commitment to the UF academic community, and on all work submitted for credit 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.”**

It is your individual responsibility to know and comply with all university policies and procedures regarding academic integrity and the Student Honor Code. Violations of the Honor Code at the University of Florida will not be tolerated. Violations will be reported to the Dean of Students Office for consideration of disciplinary action. For additional information regarding Academic Integrity, please see Student Conduct and Honor Code or the Graduate Student Website for additional details:

<https://www.dso.ufl.edu/sccr/process/student-conduct-honor-code/>

<http://gradschool.ufl.edu/students/introduction.html>

**Please remember cheating, lying, misrepresentation, or plagiarism in any form is unacceptable and inexcusable behavior.**

### **Online Faculty Course Evaluation 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/>.

### **Support Services:**

#### **Accommodations for Students with Disabilities:**

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. The College is committed to providing reasonable accommodations to assist students in their coursework.

### **Counseling and Student Health:**

Students sometimes experience stress from academic expectations and/or personal and interpersonal issues that may interfere with their academic performance. If you find yourself facing issues that have the potential to or are already negatively affecting your coursework, you are encouraged to talk with an instructor and/or seek help through University resources available to you.

- The Counseling and Wellness Center 352-392-1575 offers a variety of support services such as psychological assessment and intervention and assistance for math and test anxiety. Visit their web site for more information: <http://www.counseling.ufl.edu>.  
On line and in person assistance is available.
- You Matter We Care website: <http://www.umatter.ufl.edu/>. If you are feeling overwhelmed or stressed, you can reach out for help through the You Matter We Care website, which is staffed by Dean of Students and Counseling Center personnel.
- The Student Health Care Center at UF Health is a satellite clinic of the main Student Health Care Center located on Fletcher Drive on campus. Student Health at UF Health offers a variety of clinical services. The clinic is located on the second floor of the Dental Tower in the Health Science Center. For more information, contact the clinic at 392-0627 or check out the web site at: <https://shcc.ufl.edu/>
- UF Health Emergency Room / Trauma Center: For immediate medical care call 352-733-0111 or go to the emergency room at 1515 SW Archer Road, Gainesville, FL 32698, [ufhealth.org/emergency-room-trauma-center](http://ufhealth.org/emergency-room-trauma-center).
- University Police Department: Visit [police.ufl.edu/](http://police.ufl.edu/) or call 352-392-1111 (or 9-1-1 for emergencies).
- Crisis intervention is always available 24/7 from:  
Alachua County Crisis Center:  
(352) 264-6789  
<http://www.alachuacounty.us/DEPTS/CSS/CRISISCENTER/Pages/CrisisCenter.aspx>

Do not wait until you reach a crisis to come in and talk with us. We have helped many students through stressful situations impacting their academic performance. You are not alone so do not be afraid to ask for assistance.

## **Academic Resources**

**E-learning technical support:** Contact the UF Computing Help Desk at 352-392-4357 or via e-mail at [helpdesk@ufl.edu](mailto:helpdesk@ufl.edu).

**Career Connections Center:** Reitz Union Suite 1300, 352-392-1601. Career assistance and counseling services [career.ufl.edu/](http://career.ufl.edu/).

**Library Support:** [cms.uflib.ufl.edu/](http://cms.uflib.ufl.edu/) ask various ways to receive assistance with respect to using the libraries or finding resources.

**Teaching Center:** Broward Hall 352-392-2010 or to make an appointment 352 392-6420. General study skills and tutoring. [teachingcenter.ufl.edu/](http://teachingcenter.ufl.edu/)

**Writing Studio:** 2215 Turlington Hall, 352-846-1138. Help brainstorming, formatting, and writing papers. [writing.ufl.edu/writing-studio/](http://writing.ufl.edu/writing-studio/)

**Student Complaints On-Campus:** [sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/](http://sccr.dso.ufl.edu/policies/student-honor-code-student-conduct-code/)

**On-Line Students Complaints:** [distance.ufl.edu/student-complaint-process](http://distance.ufl.edu/student-complaint-process)