

**University of Florida**  
**College of Public Health & Health Professions Syllabus**  
**CLP 4420 (Section 5159): Introduction to Neuropsychology (3 credit hours)**  
Spring Semester, 2020  
Delivery Format: On-Campus  
Course Listed on Canvas

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Instructor Name: Russell M. Bauer, Ph.D., ABPP/CN  
Room Number: G103 HPNP  
Phone Number: (352) 273-6140  
Email Address: rbauer@phhp.ufl.edu  
Office Hours: Mondays, 4pm-5pm, 3158 HPNP  
Preferred Course Communications: I prefer you contact me via my email (**at above address, not through Canvas**)

TA Name: Sean Turner, B.S. (seanmturn@phhp.ufl.edu)

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**Prerequisites:** Introduction to Psychology, Abnormal Psychology

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## **PURPOSE AND OUTCOME**

**Course Overview.** This course provides an introduction to the science and practice of neuropsychology, including the anatomic, functional, and cognitive substrates underlying human behavior and neuropsychological disorders.

**Relation to Program Outcomes.** This course provides didactic instruction and case examples that enable the student to develop beginning skills in understanding normal and disordered brain function. It provides information useful for students who aspire to careers in health professions or rehabilitation.

**Course Objectives and/or Goals.** Upon successful completion of the course, students will have acquired knowledge and understanding of the concepts and terminology essential to the field of clinical neuropsychology, including:

- the role of neuropsychology in the interdisciplinary study and treatment of clinical disorders of higher cognitive function
- the historical origins and future directions of neuropsychology
- key methods and major assumptions in neuropsychology research and clinical practice
- functionally relevant neuroanatomy
- primary cognitive domains and related neuropsychological disorders, including their assessment and treatments
- lifespan issues in neuropsychology, including pediatric and geriatric disorders, and the role of neuroplasticity in the brain's response to injury and interventions
- professional issues, including ethical guidelines, training requirements, and career options.

**Instructional Methods:** Lectures, video and live demonstrations

### **Course Materials and Technology**

**Recommended (highly) textbook:** Zillmer, E.A., Spiers, M.V., & Culbertson, W.C. (2008). *Principles of Neuropsychology: 2nd Edition*, Thomson Wadsworth Publishers.

**Online Materials:** Required readings not found in the textbook will be posted via the University's E-learning system/Canvas at <http://elearning.ufl.edu>

**Supplemental and Optional Readings/Resources:** Additional articles, videos, and tutorials will also be posted on Canvas. **Course participants are asked to download the sli.do app from an app store near you.**

- **NOTE: All readings posted online are for educational purposes only and should not be duplicated or redistributed.**

### What to Expect

The human brain is arguably the most complex organ of the body; as a result, understanding its function – and dysfunction – can be both fun and challenging. This course is information-intensive. My goal is to provide you with the necessary tools and resources to succeed in this course. Therefore, ***you can expect me to:***

- Be passionate about the material and do my best to facilitate interest and learning
- Post PowerPoint files of each lecture on the course website (every effort will be made to post these by noon on the day of each class, if not earlier)
- Integrate videos, case studies, and guest presentations into class lectures wherever feasible
- Provide supplemental readings, tutorials and videos to enhance learning
- Provide study questions that help you organize your learning in preparing for exams
- Be available during weekly office-hours in person
- Provide opportunities to review material before each exam

In return, ***I expect you to:***

- Attend class.
- Participate: In addition to simply attending class, we hope and expect that you will ask questions, respond to questions and polls, make comments, and otherwise contribute in class.
- Read: This course covers a fairly large amount of material, and readings have been carefully selected to help you learn and understand the topics discussed in lecture.
- Be respectful and professional with classmates, instructors, and guest speakers. Professional behavior includes arriving on time for class and silencing all cellphones and other personal electronic devices. In class, laptops, tablets, etc., should be used for viewing slides and taking notes, NOT for surfing the web, altering your fantasy football roster, ordering from Amazon, or other non-academic activities.

## DESCRIPTION OF COURSE CONTENT

### Topical Outline/Course Schedule

<b>Classes 1-3: Introduction, Methods and Anatomy</b>		
<b>Jan 6: INTRODUCTION AND HISTORY</b> Class 1 Welcome, Course Syllabus Review	<i>Lecture Topics:</i> Neuropsychology and Clinical Neuroscience History of Neuropsychology	<i>Readings:</i> Zillmer, Spiers & Culbertson: <ul style="list-style-type: none"> <li>• Chapter 1: A History of Neuropsychology</li> </ul>
<b>Jan 13: RESEARCH AND CLINICAL METHODS</b> Class 2	<i>Lecture Topics:</i> Experimental methods in neuropsychology Clinical neuropsychological assessment methods	<i>Readings:</i> Zillmer, Spiers & Culbertson: <ul style="list-style-type: none"> <li>• Chapter 2: Methods of Investigating the Brain</li> <li>• Chapter 3: Neuropsychological Assessment and Diagnosis</li> <li>• Howieson, D. (2019). Current limitations of neuropsychological tests and assessment procedures. <i>The Clinical Neuropsychologist</i>, 33, 200-208.</li> </ul>
<b>Jan 20: No Class – Martin Luther King, Jr. Day</b>		

<p><b>Jan 27: ORGANIZATION OF THE BRAIN AND BEHAVIOR</b> Class 3</p>	<p><i>Lecture Topic:</i> Clinically-relevant functional neuroanatomy: General principles and functional systems</p>	<p><i>Readings:</i></p> <ul style="list-style-type: none"> <li>• Gaynor &amp; Bauer, 2020</li> <li>• Zillmer, Spiers &amp; Culbertson: Chapter 4: Cells of Thought Chapter 5: Functional Neuroanatomy Chapter 6: Cerebral Specialization (pp. 155-167)</li> </ul>
<p><b><u>Feb 3: EXAM 1 (Classes 1-3)</u></b></p>		
<p><b>Classes 4-7: Cognitive Domains and Disorders</b></p>		
<p><b>Feb 10: LANGUAGE AND APHASIA</b> Class 4</p>	<p><i>Lecture Topics:</i> Overview of Language Acquired and Developmental Language Disorders</p>	<p><i>Readings:</i></p> <ul style="list-style-type: none"> <li>• Kolb &amp; Wishaw: Chapter 19: The Origins of Language</li> </ul> <p><i>Optional Reading:</i></p> <ul style="list-style-type: none"> <li>• Worrall (2019). The seven habits of highly effective aphasia therapists: The perspective of people living with aphaia. <i>International Journal of Speech-Language Pathology</i>, 21, 438-447.</li> <li>• Sacks, O. (2005). Recalled to life: When patients suffer a loss of language, must they also lose their sense of self? <i>The New Yorker</i>, October 31, 46-53.</li> </ul>
<p><b>Feb 17: ATTENTION AND PERCEPTION</b> Class 5</p>	<p><i>Lecture Topics:</i> Visuospatial Abilities, Attention, Neglect, Agnosia</p> <p><i>Key Topics/Disorders:</i> Attentional dysfunction Sensory perception Visuospatial processing Visual Agnosia (object, face agnosia) Hemispatial Neglect Topographical Disorientation</p>	<p><i>Readings:</i></p> <ul style="list-style-type: none"> <li>• Bauer, 2014</li> <li>• Zillmer, Spiers, &amp; Culbertson: Chapter 9: pp. 240-246</li> </ul> <p>On course website: Selections from Kolb &amp; Wishaw:</p> <ul style="list-style-type: none"> <li>• Chapter 13: The Occipital Lobes <ul style="list-style-type: none"> <li>○ pp. 323-325 (“Visual Functions Beyond the Occipital Lobes”)</li> <li>○ pp. 330-340 (beginning with “Disorders of Cortical Function”)</li> </ul> </li> <li>• Chapter 14: The Parietal Lobes (pp. 345-364)</li> <li>• Chapter 15: The Temporal Lobes (pp. 373-385)</li> <li>• Husain, M. (2008), Hemineglect. <i>Scholarpedia</i>, 3(2):3681. <a href="http://www.scholarpedia.org/article/Hemineglect">http://www.scholarpedia.org/article/Hemineglect</a></li> </ul> <p><i>Optional Readings:</i></p> <ul style="list-style-type: none"> <li>• Bisiach, E. &amp; Luzzatti, C. (1978). Unilateral neglect of representational space, <i>Cortex</i>, 14, 129–133.</li> <li>• Farah, M. J. &amp; Feinberg, T. E. (2000). Visual object agnosia. In M. J. Farah &amp; T. E. Feinberg (Eds.), <i>Patient-based approaches to cognitive neuroscience</i> (pp. 79-84). Cambridge, MA: MIT Press.</li> </ul>
<p><b>Feb 24: MEMORY AND AMNESIA</b> Class 6</p>	<p><i>Lecture Topic:</i> Overview of memory, Amnesia Episodic and semantic memory disorders</p>	<p><i>Readings:</i> Online:</p> <ul style="list-style-type: none"> <li>• Kolb &amp; Wishaw: Chapter 18: Memory</li> <li>• Bauer, et al, 2019</li> </ul> <p><i>Optional Reading:</i></p>

		<ul style="list-style-type: none"> <li>Sacks, O. (2007). The abyss: Music and amnesia. <i>The New Yorker</i>, September 24, 100-111.</li> <li>Farah, M.J. &amp; Grossman, M. (2000). Semantic memory impairments. In M. J. Farah &amp; T. E. Feinberg (Eds.), <i>Patient-based approaches to cognitive neuroscience</i> (pp. 301-305). Cambridge, MA: The MIT Press.</li> </ul>
<b>March 2: NO CLASS – Spring Break</b>		
<b>March 9: FRONTAL LOBE AND EXECUTIVE FUNCTIONS</b> Class 7	<p><i>Lecture Topics:</i></p> <p>Functional Anatomy of Frontal Lobes Executive function and dysfunction Motor Planning and Intention Personality and Mood Regulation Working Memory</p>	<p><i>Readings:</i></p> <p>Zillmer, Spiers &amp; Culbertson:</p> <ul style="list-style-type: none"> <li>Chapter 9: pp. 246-259</li> </ul> <p>Canvas: Kolb &amp; Whishaw:</p> <ul style="list-style-type: none"> <li>Chapter 16: The Frontal Lobes</li> <li>Chapter 26: Neurological Disorders – TBI section (pp. 702-706)</li> </ul> <p><i>Optional Reading:</i></p> <ul style="list-style-type: none"> <li>Damasio, H., Grabowski, T., Frank, R., Galaburda, A. M., &amp; Damasio, A. R. (1994). The return of Phineas Gage: Clues about the brain from the skull of a famous patient. <i>Science</i>, 264, 1102-1105.</li> </ul>
<b>March 16: Exam 2 (Classes 4-7)</b>		
<b>March 23: TRAUMATIC BRAIN INJURY</b> Class 8	<p><i>Lecture Topics:</i></p> <p>Overview of traumatic brain injury Functional outcome in head injury Assessment and management of head injury and concussion Rehabilitation</p>	<p><i>Readings:</i></p> <ul style="list-style-type: none"> <li>Zillmer, Spiers &amp; Culbertson: Chapter 13: Traumatic Head Injury and Rehabilitation (pp. 369-389).</li> <li>McCrea, M., Broshek, D.K. &amp; Barth, J.T. (2015). Sports concussion assessment and management: Future research directions. <i>Brain Injury</i>, 29, 276-282.</li> </ul> <p><i>Optional Reading:</i></p> <ul style="list-style-type: none"> <li>Wagner, A.K. (2010). TBI translational rehabilitation research in the 21<sup>st</sup> century: Exploring a reholomics research model. <i>Eur J. Phys Rehabil Med</i>, 46, 549-555.</li> <li>Omalu, B.I. et al (2005). Chronic traumatic encephalopathy in a National Football League player. <i>Neurosurgery</i>, 57, 128-134.</li> </ul>
<b>Classes 8-10: Clinical Lifespan and Professional Issues</b>		
<b>March 30 PEDIATRIC NEUROPSYCHOLOGY</b> Class 9	<p><i>Lecture Topics and Disorders:</i></p> <p>Epilepsy Developmental/Autism Spectrum Disorders Pediatric Neuropsychology Pediatric Neuropsychological Disorders: Pre- and perinatal brain damage Genetic/congenital disorders Learning disabilities</p>	<p><i>Readings:</i></p> <p>Zillmer, Spiers &amp; Culbertson:</p> <ul style="list-style-type: none"> <li>Chapter 10: Developmental Disorders of Childhood</li> <li>Chapter 11: Learning and Neuropsychiatric Disorders of Childhood</li> </ul> <p><i>Optional Reading:</i></p> <ul style="list-style-type: none"> <li>Singh, A., Yeh, C.J., Verma, N., &amp; Das, A.K. (2015). Overview of attention deficit hyperactivity disorder in young children. <i>Health Psychology Research</i>, 3:2115.</li> </ul>

	Pervasive Developmental Disorders Attention Deficit Hyperactivity Disorder	
<b>April 6: AGING AND DEMENTIA</b> Class 10  <b><u>PAPERS DUE BY 5pm</u></b>	<i>Lecture Topics:</i> Normal Aging Pathological Aging and Dementia  <i>Key disorders:</i> Mild Cognitive Impairment (MCI) Degenerative dementia (e.g., Alzheimer's disease, Frontotemporal dementia) Vascular dementia/vascular disease/white matter disease	<i>Readings:</i> Zillmer, Spiers, & Culbertson: <ul style="list-style-type: none"> <li>Chapter 12: Cerebrovascular Disorders (pp. 339-347; 351-357)</li> <li>Chapter 14: Normal Aging and Dementia: Alzheimer's Disease</li> <li>Chapter 15: Subcortical Dementias</li> </ul> <i>Optional Readings:</i> <ul style="list-style-type: none"> <li>Park, D. C. and P. Reuter-Lorenz (2009). "The adaptive brain: aging and neurocognitive scaffolding." <i>Ann Rev Psychol</i> 60: 173-96</li> <li>Sperling, R., Mormino, E., &amp; Johnson, K. (2014). The evolution of preclinical Alzheimer's disease: Implications for prevention trials. <i>Neuron</i>, 84, 608-622.</li> <li>Jack, C.R., et al. (2018). NIA-AA Research Framework: Toward a biological definition of Alzheimer's disease. <i>Alzheimer's &amp; Dementia</i>, 14, 535-562.</li> </ul>
<b>April 13: PROFESSIONAL ISSUES AND APPLICATIONS</b> Class 11	<i>Lecture Topics:</i> Ethical guidelines and considerations Multicultural issues in Neuropsychology Forensic Neuropsychology Training in Neuropsychology Careers in Neuropsychology	<i>Readings:</i> Online/Canvas: <ul style="list-style-type: none"> <li>Craig, P. (2007). Clinical Neuropsychology: Brain-Behavior Relationships. In R. J. Sternberg (Ed.), <i>Career Paths in Psychology: Where Your Degree Can Take You</i> (pp. 161-178). Washington, DC: American Psychological Association.</li> <li>APA Ethical guidelines: <a href="https://www.apa.org/ethics/code/">https://www.apa.org/ethics/code/</a></li> <li>Smith, G., on behalf of the CNS (2019) Education and training in clinical neuropsychology: Recent developments and documents from the clinical neuropsychology synarchy, <i>The Clinical Neuropsychologist</i>, 33:3, 447-465,</li> <li>American Psychological Association. 2017. <i>Multicultural Guidelines: An Ecological Approach to Context, Identity, and Intersectionality</i>. Retrieved from: <a href="http://www.apa.org/about/policy/multicultural-guidelines.pdf">http://www.apa.org/about/policy/multicultural-guidelines.pdf</a></li> </ul>
<b><u>APRIL 20: FINAL EXAM (In Class; 67% from Class 8-11; 33% from earlier)</u></b>		

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

- <http://helpdesk.ufl.edu/>
- (352) 392-HELP – (4357)

## ACADEMIC REQUIREMENTS AND GRADING

**Examinations and Assignments:** Final grades will be based on attendance/participation (5%), one paper assignment (20%) and three in-class examinations (25% each; 75% total).

**Attendance/Participation:** Attendance will be taken during random classes and absentees will receive a “0” for that class; attendees will receive a “1”. Total attendance score is 5% of the total grade.

**Paper Assignment:** Each student will be expected to complete one paper assignment, which will account for 25% of the final course grade, due April 6, 2020 at 5pm. The paper will consist of a critique of a research article in neuropsychology. Students will choose one article to critique from a list of articles provided for this purpose. Specific format for subsections of the paper, as well as a scoring rubric, are forthcoming. Papers should be 3-5 typed, double-spaced pages in Arial 11-12 point font with 1” margins. Students will submit the paper electronically to the Canvas website by the due date/time.

**Examinations** will take place in class on the dates listed in the schedule and in the Table below. All examinations are open-book, open-note exams. Examinations will cover material as indicated in the schedule. Examination format will utilize a variety of objective methods (multiple-choice, short answer, true-falls, fill-in-the-blank, etc.). Examinations will cover both reading and lecture material, though materials in lectures will be emphasized. Students will receive study questions in advance of each exam to help them prepare.

### Grading

Relevant dates on which points can be earned are listed in this Table. Please mark your calendars.

Requirement	Due date	Points or % of final grade (% must sum to 100%)
Exam 1	February 3, 2020	25%
Exam 2	March 16, 2020	25%
Paper	April 6, 2020, 5pm	20%
Exam 3	April 20, 2020	25%
Attendance	Random dates	5%

**Point system** used (i.e., how course points translate into letter grades). Exams will each be assigned a number of points. Earned points based on correct answers will be summed and expressed as a percentage of the total possible points. All grades will be rounded (up or down) to the nearest integer. Grading is based on percentage cut-offs as follows:

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

Please be aware that the Bachelor of Health Science Program does not use C- grades.

The following table lists the conversion from letter grades to grade points. Letter grade to grade point conversions are fixed by UF and cannot be changed.

Letter Grade	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E	WF	I	NG	S-U
Grade Points	4.0	3.67	3.33	3.0	2.67	2.33	2.0	1.67	1.33	1.0	0.67	0.0	0.0	0.0	0.0	0.0

For greater detail on the meaning of letter grades and university policies related to them, see the Registrar’s Grade Policy regulations at: <http://catalog.ufl.edu/ugrad/current/regulations/info/grades.aspx>

### Exam Policy/Policy Related to Make up Exams or Other Work

Students are expected to attend and be prepared to participate in all class sessions and exams. Personal issues with respect to class attendance or fulfillment of course requirements will be handled on an individual basis. Absence from an exam for appropriate professional obligations (e.g., graduate, professional, or medical school interviews) is permissible but should be avoided if possible, and must be preapproved by the course

instructor. If a make-up exam is required due to professional obligations or health reasons, documentation (e.g., doctor's note, a conference agenda, and some proof of your role as a speaker or attendee) will be required. Approved make-up exams must take place within 7 days of the originally scheduled exam date at a time mutually agreed upon by the instructor and student.

Please note: Any requests for make-ups due to technical issues **MUST** be accompanied by the ticket number received from LSS when the problem was reported to them. The ticket number will document the time and date of the problem. You **MUST** e-mail me within 24 hours of the technical difficulty if you wish to request a make-up.

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

Attendance is expected, and is required if the student wishes to earn the highest possible number of attendance points.

The UF policy for excused absences is reproduced below:

Students are responsible for satisfying all academic objectives as defined by the instructor. Absences count from the first class meeting.

In general, acceptable reasons for absence from or failure to participate in class include illness, serious family emergencies, special curricular requirements (e.g., judging trips, field trips, and professional conferences), military obligation, severe weather conditions, religious holidays and participation in official university activities such as music performances, athletic competition or debate. Absences from class for court-imposed legal obligations (e.g., jury duty or subpoena) must be excused. Other reasons also may be approved.

You cannot participate in classes unless you are registered officially or approved to audit with evidence of having paid audit fees. The Office of the University Registrar provides official class rolls to instructors.

If you do not participate in at least one of the first two class meetings of a course or laboratory in which you are registered, and you have not contacted the department to indicate your intent, you can be dropped from the course. You must not assume that you will be dropped, however. The department will notify you if you have been dropped from a course or laboratory. You can request reinstatement on a space-available basis if you present documented evidence. For further information regarding the UF Attendance Policy see the Registrar website for additional details:

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

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## **STUDENT EXPECTATIONS, ROLES, AND OPPORTUNITIES FOR INPUT**

### **Expectations Regarding Course Behavior**

Students are expected to report to class on time, be prepared for the class by having read assigned material, and to participate in discussions as appropriate. PowerPoint lectures will be available on the Canvas website in advance of each class, so students are encouraged to follow along with the lectures and to take notes by either printing out the PowerPoint or by accessing it via a laptop computer or other electronic device.

Students are asked to silence their cell phones at the beginning of class and to show respect for all other persons while class is in session.

### **Communication Guidelines**

Students are encouraged to ask questions and to respond to instructor queries during class. If students have special questions or concerns they would prefer to discuss privately with the instructor or TA, they are encouraged to attend office hours or to approach the instructor immediately after class.

### **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 feedback on the quality of instruction in this course by completing online evaluations at <https://evaluations.ufl.edu>. Evaluations are typically open during the last two or three weeks of the semester, but students will be given specific times when they are open. Summary results of these assessments are available to students at <https://evaluations.ufl.edu/results/>.

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## **SUPPORT SERVICES**

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

If you require classroom accommodation because of a disability, you must register with the Dean of Students Office <http://www.dso.ufl.edu> within the first week of class. The Dean of Students Office will provide documentation of accommodations to you, which you then give to me as the instructor of the course to receive accommodations. Please make sure you provide this letter to me by the end of the second week of the course. 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 Shands is a satellite clinic of the main Student Health Care Center located on Fletcher Drive on campus. Student Health at Shands 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, check out the web site at: <https://shcc.ufl.edu/appointments/locations/shcc-shands/>
- Crisis intervention is always available 24/7 from the Alachua County Crisis Center at (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.

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