

**University of Florida
College of Public Health & Health Professions Syllabus**

**CLP 7525, Best Methods for the Analysis of Psychological Change (3 credit hours
Section Number: 18DB(11114), Spring: 2020**

Meeting time/place: Wednesdays Periods 9-11 (4:05-7:05 pm, HPNP G-110)

Delivery Format: Blended learning/flipped classroom

Course Website or E-Learning: [Elearning site](#)

Category	Entry
Instructor Name	Michael Marsiske
Office	HPNP 3179
Phone Number	(352) 273-5097
Email Address	marsiske@phhp.ufl.edu
Office Hours	By appointment
Preferred Course Communications	Email

Prerequisites:

Must have successfully completed CLP 6529. Must be a graduate student in good standing in Clinical and Health Psychology, Psychology, Rehabilitation Sciences, Communication Sciences and Disorders, Speech, Language and Hearing Sciences, Health Services Research, Management and Policy. All others must petition.

PURPOSE AND OUTCOME

Course Overview.

The study of behavior change is a core unifying focus in the behavioral sciences. In Psychology, intervention focused areas (such as Clinical, Counseling, Organization, Educational, Sport) all have a common interest in detecting behavioral change due to treatments. In addition, Developmental and Social Psychology often have strong interests in understanding the natural course of change, and in understanding the antecedents and consequences of such change. Recently, following trends in econometrics and social science, micro-longitudinal/intensive longitudinal designs have become more important. This course provides an introduction to some of the specialized techniques that have evolved for the study of change (taxonomies of change, mixed effect growth models, latent growth models, growth pattern mixture models, and survival analysis).

This is an *advanced* class, with the presumption that all students have had at least three preparatory classes at the graduate level. Thus, this class will focus much more on the student's ability to extract critical information from course readings and lectures, and to apply their learning to data sets and problems of personal relevance.

Relation to Program Outcomes.

This course is an elective course for all graduate programs.

For Accreditation Site Visitors

Complete references for the reading materials may be found at this [reading link](#). An overview of coverage of tests/measurement/psychometric topics across our four research design/measurement/statistics may be found at this [psychometric link](#). . An overview of coverage of research design and methodology topics may be found at the [research design link](#).

Course Objectives and/or Goals

Content domains: Two occasion change models (reliable change, standard error of measurement), mixed effects model for change and growth models; structural equation model approach to latent growth model, growth pattern mixture models, missing data in longitudinal models, survival models (life tables, discrete time models, Cox proportional hazards)

Dimension	Objective	Learning activity/ies	Evaluation
Knowledge	Read textbook and primary source meetings; class powerpoints and transcripts. Identify the major topics covered each week and the relationship to the course roadmap Reproduce simple analysis and data strategies demonstrated in lecture	Online lectures, online demonstrations, readings	Self-testing and mastery learning; multiple-choice examination
Comprehension	Define the major concepts/terms each week Describe the appropriate situations in which to use techniques demonstrated Differentiate among different approaches (e.g., different kinds of transformations or analysis strategies) and their strengths and weaknesses	Online demonstrations , In-class discussion readings	Self-testing and mastery learning, in-class practice exercises, multiple-choice examination
Application	Calculate major coefficients and summary statistics	Online demonstrations ,	Self-testing and mastery

Dimension	Objective	Learning activity/ies	Evaluation
	<p>Chart key findings and interpret</p> <p>Choose the best analysis/transformation for a given situation</p> <p>Extend basic analysis situations demonstrated in class to more complex data problems</p>	Hands-on class sessions, Team-based problem solving	learning; in-class practice exercises, data analysis homework (output generation)
Analysis	<p>Break down the multiple results of a data analysis into constituent pieces</p> <p>Examine variable distributions and determine if conformal for analysis</p> <p>Interpret the results of analyses with regards to the substantive questions being asked</p> <p>Recommend next steps or areas in need of clarification to improve the analysis</p>	Team-based problem solving, In-class discussion, coaching/mentoring	Peer-review and group self-evaluation, data analysis homework (analysis selection and output interpretation)
Synthesis	<p>Collaborate with group members to determine the best solution to a complex problem</p> <p>Combine multiple sources of information (e.g., information regarding distributions and analytical question)</p> <p>Construct an appropriate analysis strategy for a multi-part data problem</p> <p>Model independent/dependent variable relationships using the appropriate techniques given distributions and questions</p>	Coaching/mentoring, Team-based problem solving	Multiple choice examination (questions combining multiple aspects of the course); homework (multi-component data-analysis problems)
Evaluation	<p>Appraise the quality of the data and the admissibility of solutions generated</p> <p>Assess the fit/quality of the solution and recommend next steps</p> <p>Compare/contrast solutions generated under multiple approaches to transformation or data analysis</p>	Coaching/mentoring, Team-based problem solving	Homework (data-analysis problems requiring you to judge effectiveness of the solution); group self-

Dimension	Objective	Learning activity/ies	Evaluation
	Prioritize and select the best choice for data analysis, given available data and distribution and research question.		evaluation discussions

Instructional Methods

This is a blended learning course. Specifically, it uses a flipped classroom (lectures online, in person meetings for collaborative problem solving)

Blended Learning

What is blended learning and why is it important?

A Blended Learning class uses a mixture of technology and face-to-face instruction to help you maximize your learning. Knowledge content that, as the instructor, I would have traditionally presented during a live class lecture is instead provided online before the live class takes place. This lets me focus my face-to-face teaching on course activities designed to help you strengthen higher order thinking skills such as critical thinking, problem solving, and collaboration. Competency in these skills is critical for today's health professional.

What is expected of you?

You are expected to actively engage in the course throughout the semester. You must come to class prepared by completing all out-of-class assignments. This preparation gives you the knowledge or practice needed to engage in higher levels of learning during the live class sessions. If you are not prepared for the face-to-face sessions, you may struggle to keep pace with the activities occurring in the live sessions, and it is unlikely that you will reach the higher learning goals of the course. Similarly, you are expected to actively participate in the live class. Your participation fosters a rich course experience for you and your peers that facilitates overall mastery of the course objectives.

Things to keep in mind

Because I post material on line, you can go back and review it as many times as needed to feel comfortable with the material prior to the live class. Please keep in mind that you have to allocate your time wisely to take full advantage of the blended learning approach.

DESCRIPTION OF COURSE CONTENT

Topical Outline/Course Schedule

(note: Readings are sometimes on topics ahead of the current week, to help prepare you for later weeks)

Week	In-class meeting	Date to complete quiz/in-class work	Topic(s)	Additional due dates
1	Jan. 15	Jan. 15	Introduction to the difference score, reliable change, standard error of measurement	
2	Jan. 22	Jan. 22	Mixed effects model for change	
3	Jan. 29	Jan. 29	Conditional growth models; time-varying covariates, Level 1 and Level 2	
4	Feb. 5	Feb. 5	Conditional intercepts, slopes, moderators	
5	Feb. 12	Feb. 12	Conclusion of MLM, introduction to SEM	
6	Feb. 19	Feb. 19	Introduction to the SEM model for change	
7	Feb. 26	Feb. 26	SEM: Time varying covariates, correlated trajectories, cross-lagged models	Portfolio 1 due Mar 2 11:59 am (morning)
8	Mar. 11	Mar. 11	Higher order growth modules, multiple populations, growth mixture models	
9	Mar. 18	Mar. 18	Growth mixture models, intensive longitudinal design	
10	Mar. 25	Mar. 25	Missing data approaches	
11	Apr. 1	Apr. 1	Introduction to survival analysis and discrete time models	
12	Apr. 8	Apr. 8	Discrete time survival models	
13	Apr. 15	Apr. 15	Non-linear discrete time; introduction to continuous time survival models	
14	Apr. 22	Apr. 22	Kaplan-Meier survival curves	Portfolio 2 due Apr 24 11:59 pm (night)
			Final exam is Monday April 27 10 am – 12 pm in Canvas	

Caveat:

The above schedule and procedures in this course are subject to change in the event of extenuating circumstances. Any changes will be announced in class, and the student is personally responsible for obtaining updated information regarding those changes.

Course Materials and Technology*Reading materials:*

Textbook/background readings for the course will be taken from the sources listed below. Each reading is followed by an acronym in parentheses; these acronyms appear further below in the syllabus. Additional primary source readings (which demonstrate use of methods or provide further detail) will be indicated under the topical outline. For a detailed list, see the *end* of this syllabus. Complete references for the reading materials may be found at [this reference link](#).

- Bollen, K. A. & Curran, P. J. (2006). Latent Curve Models: A Structural Equation Perspective. Hoboken, NJ: Wiley. (BOLL)
- Collins, L. M., & Horn, J.L. (Eds). (1991). Best Methods for the Analysis of Change: Recent Advances, Unanswered Questions, Future Directions. Washington, DC: American Psychological Association. (COLHOR)
- Collins, L. M., & Sayer, A.G. (Eds). (2001). New Methods for the Analysis of Change. Washington, DC: American Psychological Association. (COLSAY)
- Duncan, T. E., Duncan, S. C., & Strycker, L. A. (2006). An Introduction to Latent Variable Growth Curve Modeling: Concepts, Issues, and Applications (Second Edition). Mahwah, NJ: Lawrence Erlbaum Associates. (DUN)
- Fitzmaurice, G. M., Laird, N. M., & Ware, J. H. (2004). Applied Longitudinal Analysis. Hoboken, NJ: Wiley. (FITZ)
- Singer, J. D., & Willett, J.B. (2003). Applied Longitudinal Data Analysis: Modeling Change and Event Occurrence. London: Oxford University Press. (SING)
- Walls, T.A., & Schafer, J. L. (2006). Models for Intensive Longitudinal Data. London: Oxford University Press. (WALLS)

Software Policy

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.

Software/computing resources:

The "official" software language of this course will be SPSS/AMOS and MPlus (whatever the latest version supported by PHHP/UF are). **All students must have access to the full-featured version of SPSS, regardless of specific version number.** See note above. Students are **required** to bring tablets/computers to weekly class meetings, and they will be **required** to conduct SPSS/AMOS/Mplus analyses in class.

- Students in PHHP can access SPSS (but not AMOS or MPlus) via our [terminal server](#). You will need a terminal services compatible remote desktop client. This is free in Windows. For iOS clients, the rdp app (not the free one) is the best. For Macs, Microsoft Remote Desktop App from the App Store
- All students can access SPSS, AMOS and MPlus via the [App Server](#) website. (Please see that site for technical instructions; you will need to install a small Citrix client on your machine the first time you use it).

These are both virtual machines, which means you can run SPSS on any Windows, MAC, or even tablet (iOS, anyway) machine.

- In the event that you want your PERSONAL copy on your PERSONAL machine, you will want to buy the SPSS Graduate Pack PREMIUM Edition (no lower version will suffice). You can get a home-use copy at the UF HUB (you must appear PHYSICALLY to get a disk). This will be good until 12/31, and then you would need to obtain a new version for the next calendar year. See [Software Services](#) for details. (\$35 in 2020). AMOS can be purchased as an add-on for an additional charge.
- If you want to download a 12 month copy, you may purchase it from [On The Hub](#). Be sure to download the "Standard", **not "Base"** Grad Pack, this is a [working link](#). AMOS is also available at this site.

All students must also be able to access course materials, which will be distributed electronically as Microsoft PowerPoint, Microsoft Word (PHHP currently supports Office 2010), or Adobe Acrobat files. This software is available free to UF students via download ([Office 365 Link](#)) or via the [App server](#). In the first class, all students will complete an e-mail register; students are responsible for updating the instructor on e-mail changes throughout the term. **All** class materials will be distributed by e-mail or Canvas site, so regular and frequent checking is a necessity.

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

- Learning-support@ufl.edu
 - (352) 392-HELP - select option 2
 - <https://lss.at.ufl.edu/help.shtml>
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ACADEMIC REQUIREMENTS AND GRADING

Quizzes (1% each)

Each week, there is a mastery quiz to submit . This consists of a few simple true/false, multiple choice, or short answer questions probing the content of that week's lecture and/or readings. These are online in Canvas, and must be submitted prior to each week's class (Wednesdays at 4:05 pm). Note: **YOU ARE LOCKED OUT OF ALL SUBSEQUENT CANVAS CONTENT UNLESS YOU PASS EACH QUIZ WITH AT LEAST 80% CORRECT. EVEN IF YOU ARE GOING TO MISS A CLASS, YOU MUST COMPLETE THE QUIZ EACH WEEK BEFORE THE DEADLINE. THERE ARE NO EXCEPTIONS OR EXTENSIONS; YOU HAVE AT LEAST SEVEN DAYS TO COMPLETE EACH QUIZ.**

Assignments (2% each)

Each week, there is an *in-class collaborative assignment* to submit. There are two rules: (a) each student works on their own analyses, but in parallel with group members (keep on pace with each other and help each other) (b) but the students *collaborate* on their written interpretation -- and submit a common written document. **This is graded for presence/absence. These must always be posted to Canvas by 7:05 pm of the day in which they are due.**

Note: There is NOT a credit for missed in class submissions in this class. If you are unable to attend class, you will have to submit the assignment by deadline on your own (and let your team know you cannot attend). Late work will be subject to the late penalties in this syllabus, unless lateness is excused by UF policies (see below). Students should continue to document their absences via the "absence reporting form" which is linked on the Persistent Resources page, accessible from the Canvas home page for our course.

Portfolio contributions (19% each)

2 Portfolios. Two times in the semester, students are expected to contribute a five-to-ten page portfolio component (APA Style Results sections format, including tables and figures). The portfolio should apply the methods reviewed in the preceding seven weeks to either (a) data set(s) controlled by the student, or (b) alternative data sets made available by the instructor. Each portfolio contribution should take the following format:

- i. One paragraph background, with references
- ii. Bulleted list of specific aims (with hypotheses, if appropriate)
- iii. One paragraph summary of methods, including participants, measures, and design. This is a very brief summary, similar to a structured abstract
- iv. Results section, with tables and figures. This should address the specific aims
- v. One paragraph discussion, summarizing the meaning of the findings, major limitations, and appropriate next steps.

This assignment is completely open: The selection of research questions, data set, breadth and complexity are all completely at the discretion of the student. Grading of the portfolio contribution will be in the form of a scientific review, with scores assigned on the

basis of the review criteria spelled out in the assignment document (in Canvas) and the associated rubric. If these assignments are late, they are subject to the late penalty schedule (see below).

Multiple choice examination (20%)

This two-hour exam will be scheduled during the UF Exam period (details below). The exam will consist of 50 multiple choice questions; The exam will be administered via Canvas on Monday April 27, 10 am – 12 pm in the “quizzes” tab. The exam will cover all content in lecture/readings from the semester. Students are strongly urged to keep up with the optional multiple-choice self-assessments, as these are close in content and format to the actual exam questions. The exam requires a good internet connection; on-campus possibilities will be discussed in class closer to the final exam date.

Grading

Requirement	Due date	% of final grade (must sum to 100%)
In-class exercise	Jan. 15	2
Lecture quiz	Jan. 15	1
In-class exercise	Jan. 22	2
Lecture quiz	Jan. 22	1
In-class exercise	Jan. 29	2
Lecture quiz	Jan. 29	1
In-class exercise	Feb. 5	2
Lecture quiz	Feb. 5	1
In-class exercise	Feb. 12	2
Lecture quiz	Feb. 12	1
In-class exercise	Feb. 19	2
Lecture quiz	Feb. 19	1
In-class exercise	Feb. 26	2
Lecture quiz	Feb. 26	1
Portfolio #1	Mar 2 11:59 am	19
In-class exercise	Mar. 11	2
Lecture quiz	Mar. 11	1
In-class exercise	Mar. 18	2

Lecture quiz	Mar. 18	1
In-class exercise	Mar. 25	2
Lecture quiz	Mar. 25	1
In-class exercise	Apr. 1	2
Lecture quiz	Apr. 1	1
In-class exercise	Apr. 8	2
Lecture quiz	Apr. 8	1
In-class exercise	Apr. 15	2
Lecture quiz	Apr. 15	1
In-class exercise	Apr. 22	2
Lecture quiz	Apr. 22	1
Portfolio #2	Apr. 24, 11:59 pm	19
Final Exam	Apr 27 10 am – 12 pm in Canvas	20

In addition to reinforcing content learned in lectures, in-class assignment questions are designed to provide students with experience analyzing, presenting and discussing research methods and results for a scientific audience. Students are therefore encouraged to think carefully about the information needed to adequately address each question. The following guidelines are intended to facilitate this process:

- Be judicious in your selection of output. Including output that is not relevant to the problem, or that is not discussed in your answer, will lead to a grading penalty being applied. Homeworks will not be scrutinized for compliance with APA format unless this is explicitly requested.
- Students who are confused about the meaning/phrasing of a question are welcome to ask for clarification in person in class, via email or anonymous comment form, or via the class discussion board in Canvas.

Point system used (i.e., how do course points translate into letter grades).

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 a C- is not an acceptable grade for graduate students. A grade of C counts toward a graduate degree only if an equal number of credits in courses numbered 5000 or higher have been earned with an A.

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

More information on UF grading policy may be found at this [link](#) and this [link](#).

Response/feedback policy.

A member of the instruction team will respond to communications (emails, phone calls, communications through Canvas, anonymous comment form) within 24 hours during the work week, and within 48 hours during weekends or university closures. If closures are due to inclement weather or emergency, responses may be slower.

Exam Policy.

Multiple choice exam will be online, Apr 27 10 am – 12 pm in Canvas and will consist of 50 multiple choice items covering content from the semester.

Policy Related to Extra Credit

For student evaluations of teaching, all members of the class will be awarded one (1) bonus point if at least 80% of the enrolled class completes evaluations, and two (2) bonus points if 100% of the enrolled class completes evaluations.

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at [GatorEvals](#). 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 [GatorEvals](#).

Policy Related to Make up Exams or Other Work

Missed in-class assignments cannot be made up, but students can miss up to two in-class assignments without losing points. **It is not possible to make up for missed in-class submissions.** In order to qualify for these points, students must submit an “absence reporting form” which is linked on the [Persistent Resources](#) page, accessible from the Canvas home page for our course.

For homework, late submissions are not encouraged. Late submissions will be accepted for up to 7 days, but with the following penalty schedule:

With regard to missing or incomplete assignments, the following policies apply:

- The instructor will **not** contact you about missing or incomplete assignments. **It is your responsibility** to check that the correct assignment has been submitted to e-learning on time.

- **It may be possible to avoid a late penalty IF YOU CONTACT THE INSTRUCTOR AT LEAST 24 HOURS IN ADVANCE.** You should email Dr. Marsiske and explain what issue (e.g., bereavement, illness) necessitates lateness. In some cases, documentation may be requested. If a lateness allowance is agreed to, this applies to a single assignment only. It does not allow you to delay future assignments. Note, conference attendance or doctoral qualifying examinations or thesis/dissertation defenses do not constitute valid lateness excuses.
- If your assignment is late, you will lose 10% each day. Thus, if an assignment is worth 30 points, you will lose 3 points for each late day. “Late” begins one minute after the due time (e.g., an assignment due at 8:34 am is considered late at 8:35 am). Penalties are as follows:

Item	Late category	Penalty
1	1 minute to 24 hours late	10% of maximum deducted from achieved grade
2	1 day + 1 minute late to 48 hours late	20% of maximum deducted from achieved grade
3	2 days + 1 minute late to 72 hours late	30% of maximum deducted from achieved grade
4	3 days + 1 minute late to 96 hours late	40% of maximum deducted from achieved grade
5	4 days + 1 minute late to 120 hours late	50% of maximum deducted from achieved grade
6	5 days + 1 minute late to 144 hours late	60% of maximum deducted from achieved grade
7	6 days + 1 minute late to 168 hours late	70% of maximum deducted from achieved grade
8	7 days + 1 minute late or longer	100% of maximum deducted from achieved grade

NOTE: UPLOADING THE WRONG DOCUMENT IS SAME-AS-LATE, even if you have documentation that you completed the document on time. **It is your responsibility to verify that you have uploaded the correct document.** (You should open or download your uploaded homeworks and double- or triple-check that you have uploaded the right one).

- There will be **no** exceptions to this policy.
- If you have uploaded the wrong document, and e-learning does not allow you to correct this, you should IMMEDIATELY send the correct document to Dr. Marsiske via email.
- If you cannot upload a document due to technical problems (e.g., if e-learning is down), you may e-mail your assignment to Dr. Marsiske. The timestamp on your e-mail will serve as the time submitting. In such cases, please upload your assignment to e-learning as well, once the technical issue is resolved.

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 your instructor within 24 hours of the technical difficulty if you wish to request a make-up.

Incomplete grades:

An incomplete grade may be assigned at the discretion of the instructor as an interim grade for a course in which the student has 1) completed a major portion of the course with a passing grade, 2) been unable to complete course requirements prior to the end of the term because of extenuating circumstances, and 3) obtained agreement from the instructor and

arranged for resolution (contract) of the incomplete grade. Instructors assign incomplete grades following consultation with Department Chairs.

Policy Related to Required Class Attendance

It is the expectation of the faculty in Clinical and Health Psychology, and Psychology, that all students attend all classes. Students are expected to be present for all classes, since much material will be covered only once in class. Weekly in-class meetings will generally require in-class submissions of material...this can only be done in class, and during class time. Thus, physical attendance is required.

Please note all faculty are bound by the UF policy for excused absences. For information regarding the UF Attendance Policy see the [Registrar website](#) for additional details:

Unlike other classes with Dr. Marsiske, **there are no pre-existing excused absence allowances for this course**. All assignments must be submitted by the stated deadline to avoid the penalties above. If you have a qualifying "excused absence", you must contact the instructor to negotiate a new deadline for missed work. Excused absences must be consistent with university policies in the Graduate [Catalog](#) and require appropriate documentation. Additional information can be found [here](#).

Policy Related to Guests Attending Class

Only registered students are permitted to attend class. However, we recognize that students who are caretakers may face occasional unexpected challenges creating attendance barriers. Therefore, by exception, a department chair or his or her designee (e.g., instructors) may grant a student permission to bring a guest(s) for a total of two class sessions per semester. This is two sessions total across all courses. No further extensions will be granted. Please note that guests are **not** permitted to attend either cadaver or wet labs. Students are responsible for course material regardless of attendance. For additional information, please review the Classroom Guests of Students policy in its entirety. [Link to full policy](#).

STUDENT EXPECTATIONS, ROLES, AND OPPORTUNITIES FOR INPUT

Inclusive Learning Environment

Public health and health professions are based on the belief in human dignity and on respect for the individual. As we share our personal beliefs inside or outside of the classroom, it is always with the understanding that we value and respect diversity of background, experience, and opinion, where every individual feels valued. We believe in, and promote, openness and tolerance of differences in ethnicity and culture, and we respect differing personal, spiritual, religious and political values. We further believe that celebrating such diversity enriches the quality of the educational experiences we provide

our students and enhances our own personal and professional relationships. We embrace The University of Florida's Non-Discrimination Policy, which reads, "The University shall actively promote equal opportunity policies and practices conforming to laws against discrimination. The University is committed to non-discrimination with respect to race, creed, color, religion, age, disability, sex, sexual orientation, gender identity and expression, marital status, national origin, political opinions or affiliations, genetic information and veteran status as protected under the Vietnam Era Veterans' Readjustment Assistance Act." If you have questions or concerns about your rights and responsibilities for inclusive learning environment, please see your instructor or refer to the Office of Multicultural & Diversity Affairs [website](#).

Expectations Regarding Course Behavior

As a matter of mutual courtesy, please let the instructor know when you're going to be late, when you're going to miss class, or if you need to leave early. Please try to do any of these as little as possible. Students who have extraordinary circumstances preventing attendance, or who must leave early, should explain these circumstances to the course instructor prior to the scheduled class, or as soon as possible thereafter. The instructor will then make an effort to accommodate reasonable requests. If you must miss a class, please request notes from your classmates about the exercises/discussion you missed.

Communication Guidelines

For extra help:

The instructor will make every effort to support students in understanding course content and reading materials. The following resources are available for this purpose:

Class Discussion. The class question-and-answer discussion board will occur in Canvas ("Discussion" link), and will be monitored by the entire instructional team. Unfortunately, due to the limitations of Canvas, questions cannot be posted anonymously.

Note #1: You can receive notifications whenever the discussion board is updated.

Next to each discussion topic, click the green "subscribe" checkmark on the Canvas Discussion main page

Note #2: We ask that you minimize sending questions **directly** to the instructor to ensure that

- (a) your classmates can share in the insights by reading the blog
- (b) the instructor does not end up answering the same question multiple times.

For these reasons, emailed questions will be strongly discouraged, unless they relate to highly personal and idiosyncratic issues. Emailed questions may receive the response of "please post this on the blog so it can be answered". If you are afraid that your question will give away the answer, please think about how to rephrase it so that it does not give away the answer. If this is not possible, then you may e-mail the instructional staff directly.

Office Hours and Appointments. Dr. Marsiske has office hours by appointment for extra help. Note, though, that these are not intended as a venue for, in essence, re-teaching the course. Students should complete these steps before requesting additional assistance:

- Review the blog in case it provides clarification
- Re-examine the notes from class

- Listen to the accompanying audio.
- Read (or re-read) the readings from that week.
- Consider watching the associated video, and/or Andy Fields' [supplemental notes](#) (click the "Statistics Hell-P" link) at his website or at the [Sage website](#), you may need to complete a free registration

In reviewing the above resources, students are asked to write down specific questions about the material that is causing confusion. If you have, in good faith, put in the work to improve your understanding, then the instructional staff can build on all your preparatory work and really help you over the "humps".

A discussion board exists in Elearning for any open questions about course materials and assignments. You are welcome to post any questions. Please be respectful, and follow [UF Netiquette guidelines](#). Please do not use the open forums for complaints or criticisms. Please do not post your suspected "answers" for any questions, so as not to interfere with the independent problem solving of other students.

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](#) 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.

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.

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:

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

Online Faculty Course Evaluation Process

For student evaluations of teaching, all members of the class will be awarded one (1) bonus point if at least 80% of the enrolled class completes evaluations, and two (2) bonus points if 100% of the enrolled class completes evaluations.

Students are expected to provide feedback on the quality of instruction in this course by completing online evaluations at [GatorEvals](#). 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 [GatorEvals](#).

Feedback is taken very seriously, and comments provided are used to improve the course for future semesters. These evaluations are not only read by me but are also read by my department. The department uses these evaluation results to evaluate my teaching, and evaluation results directly influence the tenure and promotion process. Evaluations are typically open during the last two or three weeks of the semester, but you will be given specific times when they are open. Summary scores calculated from the evaluations will also be [posted publicly](#).

SUPPORT SERVICES

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.

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 their [website](#). 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.

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 this [link](#).

Campus Resources:

Health and Wellness

- **U Matter, We Care:** If you or a friend is in distress, please contact umatter@ufl.edu or 352 392-1575 so that a team member can reach out to the student.
- **Counseling and Wellness Center:** [CWC Website](#), and 392-1575; and the University Police Department: 392-1111 or 9-1-1 for emergencies.
- **Sexual Assault Recovery Services (SARS):** Student Health Care Center, 392-1161.
- **University Police Department** at 392-1111 (or 9-1-1 for emergencies), or [website](#).

Academic Resources

- **E-learning technical support**, 352-392-4357 (select option 2) or e-mail to Learning-support@ufl.edu, or visit the [website](#).
- **Career Resource Center, Reitz Union**, 392-1601. Career assistance and counseling [website](#).
- **Library Support**, [Website](#). Various ways to receive assistance with respect to using the libraries or finding resources.
- **Teaching Center**, Broward Hall, 392-2010 or 392-6420. General study skills and tutoring. [Website](#).
- **Writing Studio**, 302 Tigert Hall, 846-1138. Help brainstorming, formatting, and writing papers. [Website](#).
- **Student Complaints Campus**: [Website](#).
- **On-Line Students Complaints**: [Website](#).

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READINGS

Week	1
Date to complete	1/11
Primary Reading	SING01 FITZ02
Secondary Readings	<p>Cronbach, L. J., & Furby, L. (1970). How should we measure "change" -- or should we? <u>Psychological Bulletin</u>, <i>74</i>, 68-80.</p> <p>Nesselroade, J. R., & Cable, D. G. (1974). "Sometimes it's okay to factor difference scores"--The separation of state and trait anxiety. <u>Multivariate Behavior Research</u>, <i>9</i>, 272-283.</p> <p>Baltes, P. B., Nesselroade, J. R., Schaie, K. W., & Labouvie, E. W. (1972). On the dilemma of regression effects in examining ability-level-related differentials in ontogenetic patterns of intelligence. <u>Developmental Psychology</u>, <i>6</i>, 78-84.</p> <p>Dudek, F. J. (1979). The continuing misinterpretation of the standard error of measurement. <u>Psychological Bulletin</u>, <i>86</i>, 335-337.</p>
Applied Reading	<p>Saczynski, J. S., Willis, S. L., & Schaie, K. W. (2002). Strategy use in reasoning training with older adults. <u>Aging Neuropsychology and Cognition</u>, <i>9</i>, 48-60.</p> <p>Temkin, N. R., Heaton, R. K., Grant, I., & Dikmen, S. S. (1999). Detecting significant change in neuropsychological test</p>

	performance: A comparison of four models. <u>Journal of the International Neuropsychological Society</u> , 5, 357–369.
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Week	2
Date to complete	1/18
Primary Reading	BOLL01 SING03
Secondary Readings	COLSAY02 COHOR06
Applied Reading	Kristjansson, S.D., Kircher, J. C., & Webb, A. K. (2007). Multilevel models for repeated measures research designs in psychophysiology: An introduction to growth curve modeling. <u>Psychophysiology</u> , 44, 728–736.

Week	3
Date to complete	1/25
Primary Reading	SING04 SING05
Secondary Readings	n/a
Applied Reading	Cillessen, A. H. N., & Borch, C. (2006). Developmental trajectories of adolescent popularity: A growth curve modelling analysis. <u>Journal of Adolescence</u> , 29, 935-959.

Week	4
Date to complete	2/1
Primary Reading	SING06
Secondary Readings	n/a
Applied Reading	n/a

Week	5
Date	2/8
Primary Reading	SING08 DUN01 DUN02
Secondary Readings	COLSAY03
Applied Reading	Cattaneo, L. B., Stuewig, J., Goodman, L. A., Kaltman, S., & Dutton, M. A. (2007). Longitudinal helpseeking patterns among victims of intimate partner violence: The relationship between legal and extralegal services. <u>American Journal of Orthopsychiatry</u> , 77, 467-477.

Week	6
Date to complete	2/15

Primary Reading	DUN03 BOLL02 BOLL03 BOLL04
Secondary Readings	COLSAY04
Applied Reading	Ram, N. & Grimm, K. (2007). Using simple and complex growth models to articulate developmental change: Matching theory to method. <u>International Journal of Behavioral Development</u> , 31, 303-316.

Week	7
Date to complete	2/22
Primary Reading	BOLL05
Secondary Readings	n/a
Applied Reading	Lenzenweger, M. F. & Willett, J. B. (2007). Predicting individual change in personality disorder features by simultaneous individual change in personality dimensions linked to neurobehavioral systems: The longitudinal study of personality disorders, <u>Journal of Abnormal Psychology</u> , 116, 684-700.

Week	8
Date	3/1
Primary Reading	DUN04 BOLL07
Secondary Readings	COLSAY06
Applied Reading	Gottfried, A. E., Marcoulides, G. A., Gottfried, A. W., Oliver, P. H., & Guerin, D. W. (2007). Multivariate latent change modeling of developmental decline in academic intrinsic math motivation and achievement: Childhood through adolescence. <u>International Journal of Behavioral Development</u> , 31, 317-327. Christensen, H., Mackinnon, A., Jorm, A. F., Korten, A., Jacomb, P., Hofer, S. M., & Henderson, S. (2004). The Canberra longitudinal study: Design, aims, methodology, outcomes and recent empirical investigations. <u>Aging, Neuropsychology, and Cognition</u> , 11, 169-195.

Week	9
Date to complete	3/15
Primary Reading	DUN05 DUN06 DUN08

	Tabachnick, B. G., & Fidell, L. S. (2007). <u>Using Multivariate Statistics</u> (Fifth Edition, Chapter 18, Time Series, pp. 18.1-18.63).
Secondary Readings	WALLS11 WALLS01
Applied Reading	. McCrae, C. S., McNamara, J. P. H., Rowe, M. A., Dzierzewski, J. M., Dirk, J., Marsiske, M., & Craggs, J. G. (in press). Sleep and affect in older adults: Using multilevel modeling to examine daily associations. <u>Journal of Sleep Research</u> . Salthouse, T. A., Nesselroade, J. R., Berish, D. E. (2006). Short-term variability in cognitive performance and the calibration of longitudinal change. <u>Journal of Gerontology: Psychological Sciences</u> , 61B, P144-P151

Week	10
Date to complete	3/22
Primary Reading	DUN11
Secondary Readings	COLSAY11 COLSAY12
Applied Reading	Duncan, S. C., Duncan, T. E., Strycker, L. A., & Chaumeton, N. R. (2007). A Cohort-Sequential Latent Growth Model of Physical Activity From Ages 12 to 17 Years. <u>Annals of Behavioral Medicine</u> , 33, 80-89 Morgan-Lopez, A. A. & Fals-Stewart, W. (2007). Analytic methods for modeling longitudinal data from rolling therapy groups with membership turnover, <u>Journal of Consulting and Clinical Psychology</u> , 75, 580-593. Graham, J. W., Taylor, B. J., Olchowski, A. E., & Cumsille, P. E. (2006). Planned Missing Data Designs in Psychological Research. <u>Psychological Methods</u> , 11, 323-343.

Week	11
Date to complete	3/29
Primary Reading	SING09 SING10 SING11
Secondary Readings	n/a
Applied Reading	Edelen, M. O., Tucker, J. S., & Ellickson, P. L. (2007). A discrete time hazards model of smoking initiation among West Coast youth from age 5 to 23. <u>Preventive Medicine: An International Journal Devoted to Practice and Theory</u> , 44, 52-54.

Week	12
Date to complete	4/5

Topic	Discrete-Time Hazard Models II/Continuous Time Event Models I
Primary Reading	SING12 SING13
Secondary Readings	n/a
Applied Reading	McHugh, M. D. (2007). Readiness for change and short-term outcomes of female adolescents in residential treatment for anorexia nervosa. <u>International Journal of Eating Disorders</u> . 40, 602-612.

Week	13
Date to complete	4/12
Primary Reading	n/a
Secondary Readings	n/a
Applied Reading	n/a

Week	14
Date to complete	4/19
Primary Reading	n/a
Secondary Readings	n/a
Applied Reading	n/a

Appendix: Acceptable Collaboration

On Collaboration

What constitutes acceptable levels of collaboration in this class? Please just treat this as "continuing education". It is here for your reference, but if (after reading this) you feel like you may have gone beyond acceptable and want to discuss it, please get in touch with me or one of the teaching assistants at your convenience.

The short answer about how much collaboration is acceptable is "As specified in the syllabus, and in the UF Honor Code". Let's review those items quickly, and then go a little deeper.

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1. UF Honor Code:

A key phrase in this honor code relates to "ambiguity": "It is the responsibility of the student to seek clarification on whether or not use of materials or collaboration or consultation with another person is authorized prior to engaging in any act of such use, collaboration or consultation. If a faculty member has authorized a student to use materials or to collaborate or consult with another person in limited circumstances, the student shall not exceed that

authority. If the student wishes to use any materials or collaborate or consult with another person in circumstances to which the authority does not plainly extend, the student shall first ascertain with the faculty member whether the use of materials, collaboration or consultation is authorized. "

<http://regulations.ufl.edu/chapter4/4041-2008.pdf>

Key phrasing with regard to collaboration:

(a) Plagiarism. A student shall not represent as the student's own work all or any portion of the work of another. Plagiarism includes but is not limited to:

1. Quoting oral or written materials including but not limited to those found on the internet, whether published or unpublished, without proper attribution.
2. Submitting a document or assignment which in whole or in part is identical or substantially identical to a document or assignment not authored by the student.

(b) Unauthorized Use of Materials or Resources ("Cheating"). A student shall not use unauthorized materials or resources in an academic activity. Unauthorized materials or resources shall include:

1. Any paper or project authored by the student and presented by the student for the satisfaction of any academic requirement if the student previously submitted substantially the same paper or project to satisfy an academic requirement and did not receive express authorization to resubmit the paper or project.
2. Any materials or resources prepared by another student and used without the other student's express consent or without proper attribution to the other student.
3. Any materials or resources which the faculty member has notified the student or the class are prohibited.
4. Use of a cheat sheet when not authorized to do so or use of any other resources or materials during an examination, quiz, or other academic activity without the express permission of the faculty member, whether access to such resource or materials is through a cell phone, PDA, other electronic device, or any other means.

(c) Prohibited Collaboration or Consultation. A student shall not collaborate or consult with another person on any academic activity unless the student has the express authorization from the faculty member.

1. Prohibited collaboration or consultation shall include but is not limited to:

a. Collaborating when not authorized to do so on an examination, take-home test, writing project, assignment, or course work.

b. Collaborating or consulting in any other academic or co-curricular activity after receiving notice that such conduct is prohibited.

c. Looking at another student's examination or quiz during the time an examination or quiz is given. Communication by any means during that time, including but not limited to communication through text messaging, telephone, e-mail, other writing or verbally, is prohibited unless expressly authorized.

2. It is the responsibility of the student to seek clarification on whether or not use of materials or collaboration or consultation with another person is authorized prior to engaging in any act of such use, collaboration or consultation. If a faculty member has authorized a student to use materials or to collaborate or consult with another person in limited circumstances, the student shall not exceed that authority. If the student wishes to use any materials or collaborate or consult with another person in circumstances to which the authority does not plainly extend, the student shall first ascertain with the faculty member whether the use of materials, collaboration or consultation is authorized.

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2. Syllabus:

The syllabus says:

"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".

It is desirable and expected that take home assignments will stimulate conversation among classmates, and that classmates may actually mentor one another in the work. Students are also likely to discuss elements of the assignment with the instructor. It is expected that submitted work will solely reflect the student's own efforts. Students are expected not to collaborate in running analyses, writing answers, or interpreting results. The TAs and instructor will regularly check for "unusual congruence" in answers, and will discuss concerning instances with students involved. Where collaboration has been found, a zero grade will be assigned."

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3. So what does this mean:

Because acceptable levels of collaboration can get "gray" in data analysis courses, the examples that follow below try to set some limits on "acceptable" vs. "unacceptable" situations:

ACCEPTABLE: Student 1 says to Student 2: "I'm so confused...do I put the predictor in the "fixed", "random" or "covariates" box?" The collaborating student expresses his or her opinion

UNACCEPTABLE: Sitting down and doing the analysis together.

ACCEPTABLE: Student cannot make a syntax run, no matter what. Second student reviews the syntax, and maybe even goes so far as to say, "why don't we sit in front of a computer, and show me what you're doing?" Based on what the second student see, he/she may make suggestions regarding how to get the syntax to run...BUT NOT suggestions on what variables are selected, etc.

UNACCEPTABLE: Three students sit around a computer together, then save a common output, which each then uses to do the homework. Each person SHOULD have run the analysis independently. If the students need to sit around the computer with someone, it probably should have been with an instructor.

ACCEPTABLE: Running the analysis independently and writing it up independently.

UNACCEPTABLE: "Was the main effect of smoking significant for you? It WAS? It wasn't for me. I better rerun the analysis and figure out where I went wrong." Don't change your results based on what someone else got.

Now, these are just random examples. What the Honor Code says is that "when in doubt, ask first". This is consistent with HIPAA, FERPA, and many clinical activities.

If you find yourself drawn to excessive collaboration because what you REALLY need is more instructional support, please let the instructor/TA know.

Excessive collaboration triggers an official process (<http://www.dso.ufl.edu/sccr/faculty/>); to avoid it, please draw a clear firewall between YOUR work, and the work of other students in the class.