

**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, Spring: 2017**

Meeting time/place: Wednesdays Periods 9-11 (4:05-7:05 pm, HPNP **G-301**)

Delivery Format: Blended learning/flipped classroom  
Course Website or E-Learning: <http://lss.at.ufl.edu>

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**Instructor Name:** Michael Marsiske  
**Office:** HPNP 3179  
**Phone Number:** (352) 273-5097  
**Email Address:** marsiske@phhp.ufl.edu  
**Office Hours:** By appointment  
**Teaching Assistants:** none  
**Preferred Course Communications:** Email

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**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.

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### **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.

### 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	<b>Read</b> textbook and primary source meetings; class powerpoints and transcripts. <b>Identify</b> the major topics covered each week and the relationship to the course roadmap <b>Reproduce</b> simple analysis demonstrated in lecture	Online lectures, online demonstrations, weekly TA review sessions, readings	Self-testing and mastery learning; multiple-choice examination
Comprehension	<b>Define</b> the major concepts/terms each week <b>Describe</b> the appropriate situations in which to use techniques demonstrated <b>Differentiate</b> among different approaches (e.g., different kinds of analysis strategies) and their strengths and weaknesses	Online demonstrations , In-class discussion weekly TA review sessions, readings	Self-testing and mastery learning, in-class practice exercises, multiple-choice examination
Application	<b>Calculate</b> major coefficients and summary statistics <b>Chart</b> key findings and interpret <b>Choose</b> the best analysis for a given situation <b>Extend</b> basic analysis situations demonstrated in class to more complex data problems	Online demonstrations , Hands-on class sessions, Team-based problem solving, weekly TA review sessions	Self-testing and mastery learning; in-class practice exercises
Analysis	<b>Break down</b> the multiple results of a data analysis into constituent pieces <b>Interpret</b> the results of analyses with regards to the substantive questions being asked <b>Recommend</b> next steps or areas in need of clarification to improve the analysis	Team-based problem solving, In-class discussion, coaching/mentoring	Peer-review and group self-evaluation, in-class practice exercises)
Synthesis	<b>Collaborate</b> with group members to determine the best solution to a	Coaching/mentoring, Team-based	Multiple choice

Dimension	Objective	Learning activity/ies	Evaluation
	complex problem <b>Combine</b> multiple sources of information (e.g., information regarding distributions and analytical question) <b>Construct</b> an appropriate analysis strategy for a multi-part data problem <b>Model</b> independent/dependent variable relationships using the appropriate techniques given distributions and questions	problem solving	examination (questions combining multiple aspects of the course); in-class practice exercises, personal data application exercises
Evaluation	<b>Appraise</b> the quality of the data and the admissibility of solutions generated <b>Assess</b> the fit/quality of the solution and recommend next steps <b>Compare/contrast</b> solutions generated under multiple approaches to transformation or data analysis <b>Prioritize</b> and select the best choice for data analysis, given available data and distribution and research question.	Coaching/mentoring, Team-based problem solving	in-class practice exercises; group self-evaluation discussions; personal data application exercises

### Instructional Methods

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

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 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 me? 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 will 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, and are shown below the weekly schedule)

Week	In-class meeting	Date to complete quiz/in-class work	Topic(s)	Additional due dates
0	1/4	n/a	Course introduction/syllabus review	
1	1/11	1/11	Introduction to the difference score, reliable change, standard error of measurement	
2	1/18	1/18	Mixed effects model for change	
3	1/25	1/25	Conditional growth models; time-varying covariates, Level 1 and Level 2	
4	2/1	2/1	Conditional intercepts, slopes, moderators	
5	2/8	2/8	Conclusion of MLM, introduction to SEM	
6	2/15	2/15	Introduction to the SEM model for change	
7	2/22	2/22	SEM: Time varying covariates, correlated trajectories, cross-lagged models	Portfolio 1 due 2/22
8	3/1	3/1	Higher order growth modules, multiple populations, growth mixture models	
9	3/15	3/15	Growth mixture models, intensive longitudinal design	
10	3/22	3/22	Missing data approaches	

Week	In-class meeting	Date to complete quiz/in-class work	Topic(s)	Additional due dates
11	3/29	3/29	Introduction to survival analysis and discrete time models	
12	4/5	4/5	Discrete time survival models	
13	4/12	4/12	Non-linear discrete time; introduction to continuous time survival models	
14	4/19	4/19	Kaplan-Meier survival curves	Portfolio 2 due 4/19
			Final exam is April 26 from 3:00 pm – 5:00 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.**

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/computing resources:

The "official" software language of this course will be SPSS/AMOS (whatever the latest version supported by PPHP is). **All students must have access to the full-featured version of SPSS/AMOS, 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 analyses in class.

- Students in PPHP will access SPSS via our terminal server ([ts.pphp.ufl.edu](http://ts.pphp.ufl.edu)). 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
- Students not in PPHP will access SPSS (and **all** students will access AMOS via the <http://info.apps.ufl.edu/> 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 <http://helpdesk.ufl.edu/software-services/spss/> for details. (\$35 in 2016). You can also acquire AMOS there for an additional \$35.
- If you want to download a 12 month copy, you may purchase it from <http://onthehub.com>. Be sure to download the "Standard", not "Base" Grad Pack, which costs \$60 for six months or \$95 for 12 months. You have to buy AMOS as a separate add-on.  
([https://estore.onthehub.com/WebStore/OfferingsOfMajorVersionList.aspx?pmv=12c7bd0a-436e-e511-9411-b8ca3a5db7a1&cmi\\_mnuMain=2ff73789-74c7-e011-ae14-f04da23e67f6&cmi\\_mnuMain\\_child=2a1143f0-74c7-e011-ae14-f04da23e67f6&utm\\_source=SPSSstatistics-productpage-statistics&utm\\_medium=onthehub-productpage&utm\\_campaign=SPSS](https://estore.onthehub.com/WebStore/OfferingsOfMajorVersionList.aspx?pmv=12c7bd0a-436e-e511-9411-b8ca3a5db7a1&cmi_mnuMain=2ff73789-74c7-e011-ae14-f04da23e67f6&cmi_mnuMain_child=2a1143f0-74c7-e011-ae14-f04da23e67f6&utm_source=SPSSstatistics-productpage-statistics&utm_medium=onthehub-productpage&utm_campaign=SPSS))

All students must also be able to access course materials, which will be distributed electronically as Microsoft PowerPoint, Microsoft Word (PPHP currently supports Office 2010), or Adobe Acrobat files. This software is available free to UF students via download (<http://www.it.ufl.edu/2015/01/free-office-365-downloads-available-to-faculty-and-staff/>) or via the <http://apps.ufl.edu> 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 issues with technical difficulties for E-learning please contact the UF Help Desk at:

- [Learning-support@ufl.edu](mailto:Learning-support@ufl.edu)
- (352) 392-HELP - select option 2
- <https://lss.at.ufl.edu/help.shtml>

## 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 a 2% credit for missed in class submissions. In other words, students can miss up to two in-class submissions without losing points. It is not possible to make up for missed 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.***

### 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 following review criteria: ambition, clarity, comprehensiveness, accuracy,

appropriateness of methods to the research question addressed. If these assignments are late, they are subject to the late fee 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 Weds 4/26 from 3:00 pm to 5:00 pm EST 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	1/11	2
Lecture quiz	1/11	1
In-class exercise	1/18	2
Lecture quiz	1/18	1
In-class exercise	1/25	2
Lecture quiz	1/25	1
In-class exercise	2/1	2
Lecture quiz	2/1	1
In-class exercise	2/8	2
Lecture quiz	2/8	1
In-class exercise	2/15	2
Lecture quiz	2/15	1
In-class exercise	2/22	2
Lecture quiz	2/22	1
Portfolio #1	2/22	19
In-class exercise	3/1	2
Lecture quiz	3/1	1
In-class exercise	3/15	2
Lecture quiz	3/15	1
In-class exercise	3/22	2

Lecture quiz	3/22	1
In-class exercise	3/29	2
Lecture quiz	3/29	1
In-class exercise	4/5	2
Lecture quiz	4/5	1
In-class exercise	4/12	2
Lecture quiz	4/12	1
In-class exercise	4/19	2
Lecture quiz	4/19	1
Portfolio #2	4/19	19
Final Exam	4/26	20

**When you submit your assignments to Canvas, it is essential that (a) you put your name in the “name” field of the homework, and (b) the first word of your assignment document title be your LAST NAME. After 2 reminders about this, a 2-point deduction will be made on each homework for which these naming conventions are forgotten. See below for additional policy on late submissions.**

Assignments will consist of multiple items. Each and every item will have equal weight and will be graded according to the rubric below. (Note: partial points, e.g., 7.5, are permissible; TAs may also score out of range for specific reasons.)

0	not attempted
7	“mercy point” (e.g., you really don’t deserve a point, but because you made some attempt, this is acknowledged; example: doing a stepwise regression when the question asks for hierarchical); note: there must be SOME evidence of relevant effort; random text would earn a “0”
8	doing the correct analysis, but coming up with the wrong numbers (e.g., choosing the wrong DV or IV combination)
9	substantially correct, but either (a) missing one or more essential item (e.g., you conduct a regression and include the regression table, but fail to discuss or interpret it), or (b) you include too much information (e.g., you include tables/figures that are not needed for the answer, and you also fail to defend/explain why it is relevant). Teaching assistants will provide you with a list of missing elements upon grading
10	adequate/all required elements are present

In addition to reinforcing content learned in class, homework 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:

- Each question will have defined length-of-response guidelines.

- Do not exceed these guidelines—they are usually more generous than is needed to answer the question (there will be a grade penalty for alterations).
- If you paste figures or tables, use the “Paste Special” feature to paste as a “**picture**” or “**bitmap**”, so that the output can fit within the space provided.
- 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 on the class discussion 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

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.** Multiple choice exam will be online, April 26 from 3:00 – 5:00 pm in Canvas and will consist of 50 multiple choice items covering content from the semester.

## Policy Related to Extra Credit

Occasionally, homework may include the opportunity for bonus points. These extra credit problems will be optional.

For student evaluations of teaching (<https://evaluations.ufl.edu>), all members of the class will be awarded one (1) bonus point if 80% of the enrolled class completes evaluations, and two (2) bonus points if 100% of the enrolled class completes evaluations.

## Policy Related to Make up Exams or Other Work

**Missed in-class assignments cannot be made up, since they also constitute “homework”. If students are going to miss an in-class assignment, they should (a) submit an “absence reporting form” which is linked on the Persistent Resources page, accessible from the Canvas home page for our course, (b) notify their group, and (c) arrange to submit the assignment independently by the deadline (or contact the instructor to discuss alternative arrangements)**

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:

- Graders 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.
- The late policy below applies **ONLY** to homework. In-class exercises (which are graded on a submitted/non-submitted basis) may **NOT** be turned in late, and will be assigned a grade of zero if missed.
- **It may be possible to avoid a late penalty IF YOU CONTACT THE INSTRUCTOR AT LEAST 24 HOURS IN ADVANCE.** You should email both Dr. Marsiske and your teaching assistant, 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:

1 minute to 24 hours late	10% of maximum deducted from achieved grade
1 day + 1 minute late to 48 hours late	20% of maximum deducted from achieved grade
2 days + 1 minute late to 72 hours late	30% of maximum deducted from achieved grade
3 days + 1 minute late to 96 hours late	40% of maximum deducted from achieved grade
4 days + 1 minute late to 120 hours late	50% of maximum deducted from achieved grade
5 days + 1 minute late to 144 hours late	60% of maximum deducted from achieved grade
6 days + 1 minute late to 168 hours late	70% of maximum deducted from achieved grade
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 and your teaching assistant 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 and your teaching assistant. 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:

[http://www.registrar.ufl.edu/catalogarchive/01-02-catalog/academic\\_regulations/academic\\_regulations\\_013\\_.htm](http://www.registrar.ufl.edu/catalogarchive/01-02-catalog/academic_regulations/academic_regulations_013_.htm)

## **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: [www.multicultural.ufl.edu](http://www.multicultural.ufl.edu)

### **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 instructor. 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.
- (c) you benefit from the possibility of receiving responses from anyone in the class, not just the instructor.

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 instructor 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. Instructional staff is more than willing to help, but students *must* first 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 (<http://www.statisticshell.com/apf.html>, and then click the "Statistics Hell-P" link) at his website or at the Sage website <http://www.sagepub.com/field4e/main.htm>, 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 instructor can build on all your preparatory work and really help you over the "humps".

### **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> so make sure you include a statement regarding the value and expectation for student participation in course evaluations. We suggest you include a comment regarding how you will use the evaluations (e.g. to make specific improvements to the course and teaching style, assignments, etc.). It is also important to make some statement regarding the direct influence they have on faculty tenure and promotion, so your input is valuable. 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 to you, which you then give to the instructor when requesting accommodation. 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.

- Your well-being is important to the University of Florida. The U Matter, We Care initiative is committed to creating a culture of care on our campus by encouraging members of our community to look out for one another and to reach out for help if a member of our community is in need. If you or a friend is in distress, please contact [umatter@ufl.edu](mailto:umatter@ufl.edu) so that the U Matter, We Care Team can reach out to the student in distress. A nighttime and weekend crisis counselor is available by phone at 352-392-1575. The U Matter, We Care Team can help connect students to the many other helping resources available including, but not limited to, Victim Advocates, Housing staff, and the Counseling and Wellness Center. Please remember that asking for help is a sign of strength. You can also visit their website at <http://www.umatter.ufl.edu/>. In case of emergency, call 9-1-1.
- 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, contact the clinic at 392-0627 or check out the web site at: <https://shcc.ufl.edu/>
- Crisis intervention is always available 24/7 from:
- Alachua County Crisis Center:  
(352) 264-6789
- <http://www.alachuacounty.us/DEPTS/CSS/CRISISCENTER/Pages/CrisisCenter.asp>

BUT – 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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## WEEKLY READINGS

<b>Week</b>	1
<b>Date to complete</b>	1/11
<b>Primary Reading</b>	SING01 FITZ02
<b>Secondary Readings</b>	<p>Cronbach, L. J., &amp; Furby, L. (1970). How should we measure "change" -- or should we? <u>Psychological Bulletin</u>, 74, 68-80.</p> <p>Nesselroade, J. R., &amp; Cable, D. G. (1974). "Sometimes it's okay to factor difference scores"--The separation of state and trait anxiety. <u>Multivariate Behavior Research</u>, 9, 272-283.</p> <p>Baltes, P. B., Nesselroade, J. R., Schaie, K. W., &amp; 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>, 6, 78-84.</p> <p>Dudek, F. J. (1979). The continuing misinterpretation of the standard error of measurement. <u>Psychological Bulletin</u>, 86, 335-337.</p>
<b>Applied Reading</b>	<p>Saczynski, J. S., Willis, S. L., &amp; Schaie, K. W. (2002). Strategy use in reasoning training with older adults. <u>Aging Neuropsychology and Cognition</u>, 9, 48-60.</p> <p>Temkin, N. R., Heaton, R. K., Grant, I., &amp; Dikmen, S. S. (1999). Detecting significant change in neuropsychological test performance: A comparison of four models. <u>Journal of the International Neuropsychological Society</u>, 5, 357-369.</p>

<b>Week</b>	2
<b>Date to complete</b>	1/18
<b>Primary Reading</b>	BOLL01 SING03
<b>Secondary Readings</b>	COLSAY02 COHOR06
<b>Applied Reading</b>	<p>Kristjansson, S.D., Kircher, J. C., &amp; 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.</p>

<b>Week</b>	3
<b>Date to complete</b>	1/25
<b>Primary Reading</b>	SING04 SING05
<b>Secondary Readings</b>	n/a

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

<b>Week</b>	5
<b>Date</b>	2/8
<b>Primary Reading</b>	SING08 DUN01 DUN02
<b>Secondary Readings</b>	COLSAY03
<b>Applied Reading</b>	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.

<b>Week</b>	6
<b>Date to complete</b>	2/15
<b>Primary Reading</b>	DUN03 BOLL02 BOLL03 BOLL04
<b>Secondary Readings</b>	COLSAY04
<b>Applied Reading</b>	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.

<b>Week</b>	7
<b>Date to complete</b>	2/22
<b>Primary Reading</b>	BOLL05
<b>Secondary Readings</b>	n/a
<b>Applied Reading</b>	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.
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<b>Week</b>	8
<b>Date</b>	3/1
<b>Primary Reading</b>	DUN04 BOLL07
<b>Secondary Readings</b>	COLSAY06
<b>Applied Reading</b>	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.

<b>Week</b>	9
<b>Date to complete</b>	3/15
<b>Primary Reading</b>	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).
<b>Secondary Readings</b>	WALLS11 WALLS01
<b>Applied Reading</b>	. 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

<b>Week</b>	10
<b>Date to complete</b>	3/22
<b>Primary Reading</b>	DUN11
<b>Secondary Readings</b>	COLSAY11 COLSAY12
<b>Applied Reading</b>	Duncan, S. C., Duncan, T. E., Strycker, L. A., & Chaumeton, N.

	<p>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</p> <p>Morgan-Lopez, A. A. &amp; 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.</p> <p>Graham, J. W., Taylor, B. J., Olchowski, A. E., &amp; Cumsille, P. E. (2006). Planned Missing Data Designs in Psychological Research. <u>Psychological Methods</u>, 11, 323-343.</p>
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<b>Week</b>	11
<b>Date to complete</b>	3/29
<b>Primary Reading</b>	SING09 SING10 SING11
<b>Secondary Readings</b>	n/a
<b>Applied Reading</b>	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.

<b>Week</b>	12
<b>Date to complete</b>	4/5
<b>Topic</b>	Discrete-Time Hazard Models II/Continuous Time Event Models I
<b>Primary Reading</b>	SING12 SING13
<b>Secondary Readings</b>	n/a
<b>Applied Reading</b>	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.

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

<b>Week</b>	14
<b>Date to complete</b>	4/19
<b>Primary Reading</b>	n/a
<b>Secondary</b>	n/a

<b>Readings</b>	
<b>Applied Reading</b>	n/a

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### 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.

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