

PSYC 6384: Methods/Analyses

Hit the Ground Running

So, you want to be an IO psychologist? This course is designed to give you a head start in your first industry job. Throughout the semester, we'll be discussing the basics of doing high-quality, replicable science. And moreover, you'll also gain applied experience working together with the class through all of the steps of managing and analyzing a real dataset.

So, by the time you're done with this course, you'll have familiarity with the basic research methods used by IO psychologists in industry, as well as some of the computer programs and statistical methods that they use to analyze the data that they collect.

Required Materials

1. A laptop computer (bring to every class session)
 - Microsoft Excel installed (free download @ smu.edu/microsoft365)
 - SMU VPN client installed (free download @ vpn.smu.edu)
 - Citrix Receiver installed (free download @ apps.smu.edu)
 - SMU U: Drive mapped (see instructions on Canvas)
2. All required readings will be provided on Canvas (canvas.smu.edu)

Professor

Nathan W. Hudson, Ph.D.
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214.768.1515
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Class Meetings

Wednesdays
12:00-2:50pm
Expressway Tower 1334

Office Hours

Please email me to set up an appointment at least two days in advance.

Appointments are strongly encouraged to be held via Zoom at:
smu.zoom.us/j/XXXXXXXXXX

COURSE LOGISTICS

SIOP Competencies and Skills

This course addresses several Core Content Competencies in accordance with the *Society for Industrial and Organizational Psychology* (SIOP) guidelines for graduation:

Competency 5: Research Methods

By the end of this course, you'll understand the scientific methods that IO psychologists use to investigate issues of critical relevance to individuals, businesses, and society.

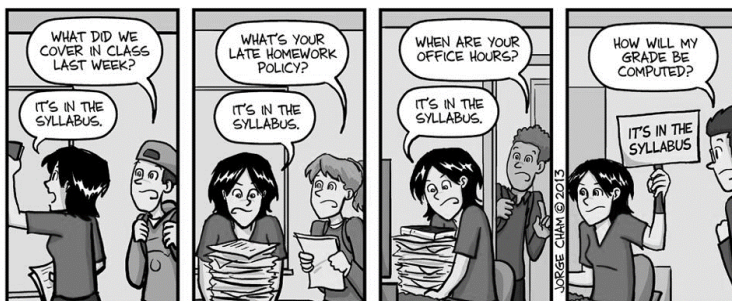
Competency 6: Statistical Methods/Data Analysis

By the end of this course, you'll gain basic skills and competencies in analyzing and evaluating statistical data—which entry-level IO psychology jobs may require.

Course Format

This course meets once a week—on Wednesdays—for about three hours. Each week, our time together will be divided into three roughly equal components: (1) seminar-style discussion of assigned readings, (2) lecture, and (3) applied statistical analyses. Before class each week, you'll need to read the assigned readings, write a brief reaction paper, and brainstorm some discussion questions.

Questions?



IT'S IN THE SYLLABUS

This message brought to you by every instructor that ever lived.

WWW.PHDCOMICS.COM

Getting in Contact

The best way to contact me is through email. I'm happy to answer most questions via email (although complex questions may require an appointment to discuss). I'll get back to you within two business days.

Preparing for Class

Each week, you'll have several assigned readings. The reading list for each week can be found on Canvas, along with PDFs of the assigned articles and chapters. Make sure to carefully read each assigned article and chapter and come to class prepared to discuss.

COVID-19 Policies

Masks are optional in this course. Please be excellent to one another and respect each other. Thus, if you have a cough, sneeze, runny nose, cold, or sore throat, please wear a mask out of respect for me and your classmates. Please respect any students who choose to wear a mask for their own safety—as well as for our collective safety as a class. Students are encouraged to stay up to date on COVID vaccinations.

Computer Requirements

A laptop computer is required for this course to complete class activities and exams. You must bring your laptop to every class session. Your computer should have the following programs installed:

1. Microsoft Office (free for SMU students)

Your computer must have Microsoft Office, including Excel and Word, installed. You must *install* the software; you **cannot** simply use the browser-based online apps (as some Excel functions that we will be using are not available in the browser-based versions of the software). Office is a free download for SMU students at smu.edu/microsoft365.

If you have a Mac, you might need to update to the latest version of macOS (a free upgrade) to be able to install Microsoft Office. If necessary, update macOS and install Microsoft Office ASAP to avoid future problems.

2. Install the SMU VPN Client

If you plan to (a) work on class exams, or (b) use your U: drive or Apps.SMU from off campus, you'll need to install SMU's VPN client. Visit vpn.smu.edu, click "AnyConnect" in the main menu, and then click the "Start AnyConnect" link to begin downloading the VPN program. Once the VPN program is installed, you'll have to start it and connect to vpn.smu.edu using your SMU ID and password.

3. Apps.SMU: SPSS

As part of this class, we'll be using SPSS on apps.smu.edu. The first time you try to use an Apps.SMU program, you'll be required to download and install the Citrix Receiver.

4. Map Your U: Drive

In order to analyze data, you'll need to map your SMU U: drive (the programs we'll be using can open only files that are stored on your U: drive). Contact the OIT Help Desk (214-768-HELP) or visit wiki.smu.edu/display/TK/U%3A+Drive+Information to learn how to do so. Note that you must be on the campus network (Peruna Net) and/or using the VPN off-campus (vpn.smu.edu) in order to map and/or access your U: drive.

Tech Support

I can offer only limited technical support. If you have trouble using Canvas (e.g., turning in assignments) or need help with using SMU services (e.g., apps.SMU, the VPN, or your U: Drive), please contact the OIT Help Desk at help@smu.edu or by phone at 214-768-HELP.

Writing Support

If you need help with the writing assignments in this course, you can schedule an appointment with the SMU Writing Center through Canvas. You can also get subject-specific tutoring through SASP: smu.edu/sasp

Start Exams and Assignments Early

As a critical tip, you should start all exams and/or assignments early. Don't wait until the day they are due to begin them. You may encounter unexpected technical difficulties (e.g., with apps.SMU, the VPN, and/or Canvas). Make sure to begin all assignments at least a few days early so that you'll know if you run into any technical problems and will have time to reach out to me and/or OIT as necessary.

GRADING

Exams

There will be three exams. All exams are cumulative. Exams may consist of: (a) multiple choice questions; (b) short essay prompts; (c) completing statistical analyses and possibly turning in your syntax and data files; and/or (d) other types of questions or activities. Anything we discuss in class, as well as any computer activities we perform in class, are fair game for exams!

All exams will be completed on Canvas. All exams will be assigned on a Wednesday after class and are due the following Tuesday by 11:59pm Central Time (see page 8). Exams are worth 120-180pt each (combined total: 460pt).

Exam Policies

- You ***must*** complete exams ***on your own***.
- You are strictly prohibited from working together with other students, seeking help from other people, and/or looking up previous students' answers to exams while completing the exams. Engaging in this type of behavior will result in failing the exam at minimum.
- You ***are*** allowed to access any other resources available to you (e.g., course handouts, notes, articles, online tutorials) while completing exams (but ***not*** help from live people or prior students' answers!).
- Start working on exams early (i.e., don't wait until Tuesday to start an exam). Exams will lose 25% for each day they are turned in late. Interviews, personal travel, etc., are not grounds for an extension. Requests for extensions will be considered on a case-by-case basis. If you need an extension, ***always*** let me know ASAP (i.e., don't wait until after the exam is due to reach out with an excuse). Select valid reasons for extensions include (but are not limited to):
 - Religiously observant students needing an exam extension due to holidays must notify me in writing ***by Week 2 of class***
 - Students needing an exam extension due to official, scheduled University activities must notify me in writing at least 2 weeks in advance, and provide an official travel letter from the University
 - Students who are sick for several days during an exam week and/or who experience an urgent family crisis during an exam week must provide reasonable documentation (e.g., doctors' notes or police reports)

Point Breakdown

Exams	460pt
Reaction Papers	120pt
Discussion Q's	60pt
Class Participation	60pt
Total Points	700pt
+Extra Credit	+60pt

Letter Grade Cutoffs

Grade	Points Needed
A	630
B+	610
B	580
B-	560
C+	540
C	510
C-	490
D+	470
D	440
D-	420

Grading Policies

- All grades will be posted to Canvas
- Final letter grades are based on the above point cutoffs, not percentages
- Because all students must be graded with identical standards, there is no special extra credit. So, please do not email asking me to raise your grade
- Remember that, in the IO Masters program, the minimum grade to successfully pass this course is a B-

Reaction Papers

Each week, we will have several assigned readings. During class, we have a *seminar-style* discussion of these readings. What this means is that *everyone* will share their thoughts, feelings, and questions about the articles.

To prepare you to discuss the articles, you'll need to carefully read them. To aid this process, each week, you will write a reaction paper *for each reading*. Your reaction paper should be about one-half to one page in length (doubled-spaced) for *each* assigned reading. You can summarize the article, discuss your thoughts about it, write about anything that confused you, and so on. The goal of the reaction papers is to help you process what you read and come to class ready to have a good discussion. Reaction papers are always due on Canvas by Tuesday at 11:59pm Central Time the day before the reading will be discussed in class.

Each week's reaction paper is worth 10pt. Your lowest score will be dropped.

Discussion Questions

In addition to your reaction paper, you must generate *at least* three thoughtful discussion questions about ***each*** assigned reading. These will be used during class to foster discussion. Discussion Questions are always due on Canvas by Tuesday at 11:59pm Central Time the day before the readings will be discussed in class.

Each week's Discussion Questions are worth 5pt. Your lowest Discussion Questions score for the semester will be dropped.

Class Participation

You are expected to actively talk during class and discuss the readings for each week. Each week, you can earn up to 5pt by actively participating in discussion. Your lowest Class Participation score for the semester will be dropped.

Extra Credit

There will be a total of 3-4 extra credit assignments throughout the semester, each worth 15-20pt. These assignments will teach you practical skills that will be useful in any entry-level industry IO position. However, this course already has a high workload; thus, these activities are not required. Nevertheless, it will be best for your education (and grade) if you complete them! Late extra credit assignments will lose 25% per day that they are turned in late.



The Reading List Is On Canvas

You can find a list of the assigned readings for each week on Canvas. PDFs of all assigned readings are available in the "Files" section of Canvas.

Ask Questions

During lecture, raise your hand to ask questions! All questions are welcomed!

Grad School's a Different Beast

You may find that some of your grad classes (this one included!) are very different from anything encountered in undergrad! That's completely normal. As a grad student, I trust that you are motivated to learn the material. Thus, my role is to be a mentor who walks through the process of learning with you. As such, in this course, the emphasis is more on learning by discussing and doing—not just by listening to lectures.

COURSE POLICIES

Electronics & Other Distractions

Please silence all phones, laptops, other electronic devices, conversations, and any other unspecified noises before class. Students who are engaging in distracting behavior (e.g., whispering with others, distracting others with non-course-related internet activity, etc.) will be dismissed from class and will lose 5% of their final course grade **per infraction**.

Disability Accommodations

Students needing academic accommodations for a disability must first register with Disability Accommodations & Success Strategies (DASS). Students can call 214-768-1470 or visit smu.edu/dass to begin the process. Once approved and registered, students must submit a DASS Accommodation Letter to me through *DASS Link* and then communicate directly with me (via Zoom or in-person) to make appropriate arrangements. Please note that DASS can take a while to process your accommodations and issue letters, accommodations are not retroactive, and accommodations require advanced notice to implement.

Academic Integrity

Exams. Any cheating during exams will result in a zero on the exam. Cheating includes working with other students on the exam, asking other people to help you on the exam, and/or attempting to look up previous students' answers to the exam questions.

Plagiarism. All written assignments must be *your own original ideas* and written *completely in your own words*. Copying and pasting from other sources is strictly prohibited. Even copying a source "idea for idea" (e.g., reading a Wikipedia article or a friend's essay and rewriting it in your own words) is a serious violation of academic integrity. Any instances of plagiarism will result in a zero on the assignment in question.

Severe/repeated dishonesty. Any student who cheats and/or plagiarizes severely and/or more than one time will receive a failing final course grade.

Quiet, Please

Please silence all side-conversations and whispering before class. Disruptive students will not be tolerated.

Actively Participate

This course is designed to help you understand key research methods issues and basic statistical analyses that will help you in your first (and all future) IO jobs. So, please, ask questions about anything you don't understand. Interact with the material. Learn through discussion. Maximize the benefits you get from this course!

Communicate Promptly

If you experience any sort of illness, family emergency, or even difficulty in completing exams or assignments, please reach out **promptly** via email. Please do not wait until after exams or assignments are due to reach out—I can't help much at that point.

Exam and Assignment Extensions

Extensions will be offered only in the case of severe illness lasting several days, emergencies, religious holidays, official University-related travel, or other valid absences (see p. 4). Because deadlines for all assignments are posted in advance and you are given generous timeframes to complete assignments and exams, extensions will be granted only in extenuating circumstances. Illness, holidays, University-related travel, or technical issues *on the day an assignment is due* are generally ***not*** extenuating circumstances. Other circumstances (e.g., chronic illness before the due date) require dated documentation (see p. 4) and will be evaluated on a case-by-case basis.

Dated Documentation Must Be Provided in Advance

In order to qualify for deadline extensions, documentation of a valid excuse must be provided ***in advance***. For unforeseen/emerging crises for which it is not possible to provide advance documentation, documentation must be provided ***as soon as is possible***.

It is the student's responsibility to communicate any medical or other emergencies and provide documentation in advance (or as soon as is possible for unforeseen crises). No makeup exams or deadline extensions will be offered to students who fail to promptly (1) provide documentation and/or (2) make arrangements to make up missed work as soon as is possible (e.g., makeup exams must be taken the day you are able to return to school).

Chronic Health Conditions

Students experiencing chronic conditions of physical health (e.g., chronic fatigue) or mental health (e.g., anxiety, depression) that are severe enough interfere with their academic performance should contact the Dean of Students to arrange accommodations ***before*** missing any exams and/or assignments (smu.edu/studentaffairs/studentlife). Even in the case of chronic health conditions, students must provide valid, dated documentation *for each individual* requested makeup exam or deadline extension.

Accommodations for chronic health conditions must be made ***in advance***. Retroactive accommodations will ***not*** be granted (e.g., students who wait until the end of the semester—or even days or weeks after an assignment is due—to ask for accommodations for any reason, including chronic physical or mental health conditions, will ***not*** be allowed to make up or redo prior work).

Make-Up Points

Your lowest reaction paper, discussion questions, and participation grade will be dropped. Thus, no make-up assignments will be offered if you need to miss a single class. In the event that you need to miss multiple classes for valid reasons, please contact me ***as soon as possible*** and we'll work something out. Dated documentation will be required to accommodate any extenuating circumstances.

SMU Required Syllabus Statements

For further information about University-wide policies regarding Disability Accommodations, Sexual Harassment, Pregnant and Parenting Students, Religious Holidays, Excused Absences, Final Exams, Student Academic Success Programs, Campus Gun-Carry Prohibitions, and much, much more, see the SMU Required Syllabus Statements website at: smu.edu/syllabus-statements

TENTATIVE SCHEDULE

W	Date	Topic	Readings	Exams
0	W 8/24	Introduction	None	
1	W 8/31	Scientific reasoning	See Canvas	
2	W 9/7	Measurement and construct validity	See Canvas	
3	W 9/14	Scale construction	See Canvas	
4	W 9/21	Scale validation	See Canvas	
5	W 9/28	Sampling and external validity	See Canvas	Exam 1 (due 10/4)
6	W 10/5	Correlation and regression	See Canvas	
7	W 10/12	Effect size and statistical conclusion validity	See Canvas	
8	W 10/19	NO CLASS	None	
9	W 10/26	Confounds and incremental validity	See Canvas	
10	W 11/2	Longitudinal designs	See Canvas	Exam 2 (due 11/8)
11	W 11/9	Mediation and moderation	See Canvas	
12	W 11/16	Experiments and internal validity	See Canvas	
	W 11/23	NO CLASS – THANKSGIVING BREAK		
13	W 11/30	Open science and replication	See Canvas	Exam 3 (due 12/7)
	W 12/7	FINAL EXAM DUE		



**KEEP
CALM
AND
READ THE
SYLLABUS**