

# BUS-Z 798: Research Methods (II)

**Syllabus**

**Spring 2024**

***(Updated 1/5/2024)***

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| **Course Information:** | |
| Course Number: | BUS-Z 798: Research Methods |
| Course Website: | [http://canvas.iu.edu](http://canvas.iu.edu/)  <https://github.com/amckenny/BUS-Z-798> |
| Course Room: | HH 3103 |
| Course Time: | Wednesdays 9:00 am – 12:00 pm |
| **Instructor Information:** | |
| Instructor: | Dr. Aaron McKenny |
| Email: | [amckenny@iu.edu](mailto:amckenny@iu.edu) |
| Website: | [http://www.amckenny.com](http://www.amckenny.com/) |
| Office Hours: | By appointment |

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# ESSENTIALS

## Course Description:

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| --- | --- |
| Official: | The primary purpose of this seminar is to prepare doctoral candidates to conduct research in the organizational and behavioral sciences. The emphasis of this course is on exploring: (a) the logic of research designs, (b) different types of research methodologies, and (c) the advantages and disadvantages of using different research methods. Special attention will be paid to the topics of construct development and validation, how to control for method biases, and the identification of the necessary conditions for establishing causal relationships. Although the discussion of various analytical procedures will be unavoidable, the major focus of the seminar will be on methodological (as opposed) to analytical issues. |
| My Take: | This course covers fundamental issues in conducting empirical research in the social sciences, focusing on business administration (e.g., organizational behavior, corporate strategy, marketing, international business, operations management, behavioral accounting) and allied disciplines (e.g., psychology, sociology, communications). This course is designed for doctoral students who intend to conduct empirical research publishable in scholarly journals.  With the introduction of a Kelley-wide introductory research methods course covering topics such as sampling, validity, reliability, and so on, this course focuses on more advanced applied methodological approaches such as structural equation modeling, meta-analysis, text analysis, and multilevel/longitudinal research. As you might expect, many of these methods could fill an entire doctoral seminar – we will cover them in a week. As a result, the goal of our seminar is to dive in to the ‘what,’ ‘when,’ and a little bit of the ‘how’ to help you build your methodological ‘rolodex.’ However, you are unlikely to leave this class with comprehensive knowledge of any of the topics discussed. To this end, you are encouraged to read and seek out information beyond those assigned in this class if you intend to use these techniques in your research.  For each topic, students are assigned core readings, and, when appropriate, are given empirical data to apply the methods under discussion. Students also receive an extensive bibliography on each topic and a detailed written synopsis of key issues. As a prerequisite, students should have a solid foundation in basic statistics, correlation, and regression analysis. |

## Course Requirements:

Students are required to fully participate at weekly class meetings. Each meeting will include a discussion of the assigned readings and homework, including the results of any data analyses. **Students are expected to read all materials and complete all homework before class.** Regarding homework, when analyses are involved, written answers should include supporting results, excerpts from computer output or brief summary tables (*not* raw computer output). These written answers serve two purposes. First, this course emphasizes hands-on application of various methods, and for learning purposes, there is no substitute for using these methods and summarizing the results in writing. Second, written answers to homework questions provide an important means of monitoring learning throughout the course. When these answers show that certain topics are not well understood, these topics will be reviewed in class. Students may consult with each other regarding the concepts and principles underlying the methods used. However, *written answers should represent the work of each individual* *student*. Moreover, *students must not obtain answers to homework questions from students who have previously taken this course*. Drawing from the work of current or past students is considered a violation ofthe honor code and carries the risk of failing the course and other appropriate sanctions. **You will need to be in class to present, clarify, and defend your work. Not being able to do so could significantly affect your grade of the written assignment. That is, ambiguity in your written assignment could be partly mitigated through class discussion. Without attendance, ambiguity would cost you points.**

Students are also strongly encouraged to bring questions of their own to raise in class for discussion. These questions help us collectively address points of confusion and pursue issues that extend beyond the assigned readings.

## Course Materials:

**Required materials:**

* All required readings will either be:
  + Linked from the course GitHub page, or
  + Uploaded to the course Canvas page (generally for book chapters/materials not readily accessible by Google Scholar/IU libraries)

**Required technology:**

* Laptop computer set up for the campus wifi
* Statistical package of your choosing
  + I use Stata and Python and will provide instruction/guidance using these; however, you are free to use the statistical package of your choosing. However, understand that if you use a package I am unfamiliar with, my ability to help you may be limited.
* Access to the IU High Performance Computing systems: Quartz and Big Red 200

**Other helpful resources:**

* Documentation for your statistical programming package of choice
* ChatGPT/GitHub Copilot

This is not a statistical programming course. Learning how to produce and debug code for your statistical package is not a primary learning outcome for this course. As a result, you may use any resources (including generative AI) to help you with the programming aspects of using the methods discussed in our course. However, generative AI may NOT be used to interpret output, complete assignments, or complete the final exam.

## Learning Outcome Statements:

By the end of this course, students should:

* Demonstrate a better understanding of the research methods used in the management field.
* Improve their ability to evaluate critically research ideas and articles published in the literature, assessing their methodological soundness and contribution to the field.
* Improve their ability to communicate material from the methods literature effectively to an academic audience.

## Getting In Touch With Me:

Office hours will be held by appointment. To set up an appointment, please contact me by email ([amckenny@iu.edu](mailto:amckenny@iu.edu)).

Due to the Family Educational Rights and Privacy Act (FERPA), all communications should come from your IU email address so that I can verify that you are asking. FERPA also prevents me from discussing any aspect of your being in my class with people not directly involved in your education (including parents) unless you provide written, signed, and notarized documentation giving me permission to do so.

I will not respond to questions about class deliverables in the 24 hours prior to their deadline. I do this for several reasons. First, it encourages the preparation of deliverables well in advance of the deadline. Second, it provides me with enough time to be thoughtful in my response. Third, it ensures that you will have sufficient time to incorporate the feedback into your deliverable. Finally, asking about key information at the last minute would reflect poorly on your preparedness and calls into question the quality of the pending deliverable.

# DELIVERABLES AND GRADING

## Deliverables:

|  |  |
| --- | --- |
| Participation and Discussion Leadership | 15% |
| Weekly Assignments | 55% |
| Final Exam | 30% |
| Total | 100% |

**Extra Credit:** None offered.

Final course grades will be determined using the following scheme.

|  |  |  |  |
| --- | --- | --- | --- |
| 97%+ | “A+ | 73%+ | “C” |
| 93%+ | “A” | 70%+ | “C-” |
| 90%+ | “A-” | 67%+ | “D+” |
| 87%+ | “B+” | 63%+ | “D” |
| 83%+ | “B” | 60%+ | “D-” |
| 80%+ | “B-” | Under 60% | “F” |
| 77%+ | “C+” |  |  |

The translation from percentages to letter grade is firm – I do not round up individuals’ grades to get them into the next bracket. If I adjust grades, it will be a class-wide adjustment and will be based on the mean class grade.

## Late Work Policy:

“Early is on time, on time is late, and late is unacceptable” is my mantra and my late work policy reflects this mantra. A deliverable is considered on-time or late based on the server submission timestamp (e.g., when your assignment was uploaded to GitHub). I highly recommend that you submit work early (even a day or two early, if it is ready) so that last minute problems with technology/forgetful teammates/etc. do not make you lose points.

Unless an arrangement is made with me (in most cases, in advance of the deadline), late work is not accepted, cannot be made up, and will count as a zero. Such arrangements will only be made under extreme circumstances.

# ACADEMIC INTEGRITY POLICY

The vast majority of IU and Kelley students act honestly and with integrity in their personal lives and in class. Indeed, integrity and accountability are [fundamental values](https://apps.kelley.iu.edu/kelleycoin/UGrad/Home/Values) of the Kelley School of Business undergraduate program. Unfortunately, each year a small group of students deviate from those values and (either intentionally or unintentionally) engage in academic misconduct. Please do not find yourself among that group.

To avoid academic misconduct, you must know and comply with the responsibilities and duties set forth in the [Kelley School of Business Student Honor Code](http://www.kelley.iu.edu/ugrad/honorCode.cfm), the [Indiana University Code of Student Rights, Responsibilities, and Conduct](http://studentcode.iu.edu/), and any other Kelley or IU rules and regulations about academic misconduct. In the event you commit an act of academic misconduct, an appropriate sanction will be imposed, and the misconduct will be reported to Indiana University. Sanctions could include a grade of F for the class.

Note that academic misconduct includes plagiarism, even if unintentional. Be sure to carefully review the [definition of plagiarism](https://studentcode.iu.edu/responsibilities/academic-misconduct.html) found in the IU Code. Additionally, sharing (including uploading) past or current quizzes, tests, or homework assignments from this class with each other (unless specifically authorized by assignment, test, or quiz instructions) or via unauthorized sources, including third-party websites such as Chegg, is against course rules and constitutes academic misconduct, even if your intent is not to enhance your performance or grade in this class. Likewise, accessing (including downloading) past or current quizzes, tests, or homework assignments via unauthorized sources, including third party websites such as Chegg, is also against course rules and constitutes academic misconduct.

If I determine that you have committed academic misconduct, I will notify you by meeting with you and explaining the basis for my determination. Then, I will report it to the University, as I am required to do. If you are the subject of a report of misconduct that you believe is inaccurate or if you believe that an imposed sanction is inappropriate, you have a right to appeal the finding of misconduct and/or the sanction. Appeals are initiated by emailing [ksappeal@indiana.edu](mailto:ksappeal@indiana.edu).

If you have any questions or concerns, it is much better to ask for permission than to ask for forgiveness in this area.

# LEARNING ENVIRONMENT

My aim is to provide every student with a caring and inclusive learning environment. As a result, there is no room for bias, discrimination, or hate in my classroom. This includes, but is not limited to sex, race, age, disability (physical or mental), color, creed, nationality, ethnicity, sexual orientation, veteran status, gender identity, arrest/court/criminal record, and so on.

**SEXUAL MISCONDUCT & TITLE IX:**

As your instructor, one of my responsibilities is to create a positive learning environment for all students. IU policy prohibits sexual misconduct in any form, including sexual harassment, sexual assault, stalking, sexual exploitation, and dating and domestic violence. If you have experienced sexual misconduct, or know someone who has, the University can help. If you are seeking help and would like to speak to someone confidentially, you can make an appointment with the IU Sexual Assault Crisis Services at (812) 855-5711, or contact a Confidential Victim Advocate at (812) 856-2469 or [cva@indiana.edu](mailto:cva@indiana.edu).

It is also important that you know that University policy requires me to share certain information brought to my attention about potential sexual misconduct, with the campus Deputy Sexual Misconduct & Title IX Coordinator or the University Sexual Misconduct & Title IX Coordinator. In that event, those individuals will work to ensure that appropriate measures are taken and resources are made available. Protecting student privacy is of utmost concern, and information will only be shared with those that need to know to ensure the University can respond and assist. I encourage you to visit <http://stopsexualviolence.iu.edu/index.html> to learn more.

**BIAS-BASED INCIDENT REPORTING:**

Bias-based incident reports can be made by students, faculty and staff. Any act of discrimination or harassment based on race, ethnicity, religious affiliation, gender, gender identity, sexual orientation or disability can be reported through any of the options: 1) fill out an online report at <https://reportincident.iu.edu/>; 2) call the Dean of Students Office at (812) 855-8187. Reports can be made anonymously at <https://reportincident.iu.edu>.

You may also wish to contact the Kelley Bias Incident Support Ombudsperson (KBISO), a resource available to all undergraduate students. The ombudsperson provides safe and confidential support so that students feel respected and heard when considering how to navigate incidents of bias or discrimination. She can help students evaluate and select among a variety of options to address incidents of bias or discrimination—including answering students’ questions about how to report incidents of bias or discrimination—or help find others who can answer students’ questions. She can make appropriate referrals for filing University-level reports of bias or discrimination and advise students about informal and formal resolution techniques to address current or future incidents of bias or discrimination. In this role, the KBISO will not give legal advice. She will not investigate claims or participate in formal grievance processes, hearings, or judicial processes. She will not make administrative or academic decisions for the School or University. Instead, she will listen intently and discuss conflicts, disputes, concerns, and complaints that students have about unfair treatment or actions stemming from bias or discrimination on the part of other students, faculty and/or staff. **The purpose of this role is student support.** If you need support or direction related to an incident of bias or discrimination, please contact the KBISO at [kbiso@indiana.edu](mailto:kbiso@indiana.edu).

# ACCESSIBILITY AND ACCOMMODATION

Indiana University is dedicated to ensuring that students with disabilities (e.g., chronic health, neurodevelopmental, neurological, sensory, psychological & emotional, including mental health, etc.) have the support services and reasonable accommodations needed to provide equal access to academic programs. To request an accommodation, you must establish your eligibility by working with ability Services for Students ([iubdss@indiana.edu](mailto:iubdss@indiana.edu) or 812-855-7578). Additional information can be found at [accessibility.iu.edu](https://accessibility.iu.edu). Note that services are confidential, may take time to put into place, and are not retroactive; captions and alternate media for print materials may take three or more weeks to get produced. Please contact your campus office as soon as possible if accommodations are needed. I look forward to ensuring you have the support you need to succeed in this class once you meet with DSS and notify me of the outcome of that consultation.

# MENTAL HEALTH AND STRESS MANAGEMENT

As a student, you may experience a range of issues that can cause barriers to learning, such as difficulties with mental health, including increased anxiety (feeling irritable, restless, or overwhelmed), difficulty concentrating or managing your time. Or you may find that you feel sad or “empty,” less interested in activities you once enjoyed; inadequate compared to others; or even hopeless. These mental health concerns could lead to diminished academic performance, drug/alcohol misuse, strained relationships, and/or a reduced ability to participate in daily activities. The moment you experience any of these, we are here to support you. The Kelley School of Business and Indiana University encourage you to reach out. Here are some resources to help:

* If your mental health or stress is affecting this class in particular, reach out to me via e-mail or office hours. I can work with you and direct you to support resources.
* If you are not sure where to start or what you need, meet with Kelley Student Support. With them, you can discuss individual needs/support, organizational consultation, or ideas in the areas of mental health and wellness, women's, and LGBTQ+ initiatives. To sign up for a time to meet, go to <https://gokelley.iu.edu/studentexperiencesignup>.
* Indiana University Counseling and Psychological Services (CAPS) is available to assist you. You can learn more about the broad range of confidential mental health services available on campus via the CAPS website (<http://healthcenter.indiana.edu/counseling/>).
* A Care Referral is another easy way to request help with an issue or concern, especially if you do not know which office or department to contact.  You can submit a Care Referral for yourself or another related to academic/administrative, personal, health/wellness, behavioral, or bias issues. File a report at <https://go.iu.edu/carereport>.

# COURSE MATERIAL USE

I hold the exclusive right to distribute, modify, post, and reproduce any course materials I have created, including written materials, study guides, lectures, assignments, exercises, and exams. Commercial tutoring services and/or online platforms may offer students something of value (money, access to materials for other courses, etc.) for sharing materials from this class. Doing so is a violation of my intellectual property rights and may violate related University policies.

In addition, some online course content, including recorded lectures and/or recordings of class sessions may be made available to you to view and download. While you are permitted to take notes on such content for your personal use, you are not permitted to distribute or re-post such content either in its original or in altered form without my express written permission.

Finally, you may not record, capture, or photograph class sessions (whether in person or online) without my express written permission​.

Violation of course rules involving unauthorized or improper use, sale, or distribution of course material and content as outlined above is an act academic misconduct under the [IU Code of Student Rights, Responsibilities, and Conduct](https://studentcode.iu.edu/) and will subject students who do so to disciplinary sanctions as discussed in the [Academic Integrity](#_ACADEMIC_INTEGRITY_POLICY) section of this document.

# AI POLICY

In this course, the use of generative artificial intelligence (AI) is permitted, but only for statistical programming assistance. It is expressly prohibited for completing any aspects of the deliverables submitted for a grade in this course beyond this limited use. Any deviation from these guidelines may result in the assignment being marked down or, if egregious, considered plagiarism and Academic Misconduct. Remember, the goal is not to have AI do the work for you, but to use it as a tool to enhance your own learning and understanding.

Importantly when AI usage is permissible, you should understand that all large language models tend to make up incorrect facts, fake citations, and in the case of programming: may produce code that appears to work but is not the correct code. There is no substitute for understanding the code produced by the model before running the code. They may perpetuate biases, and image generation models can occasionally come up with offensive results. You will be responsible for any inaccurate, biased, offensive, or otherwise unethical content you submit.

# SYLLABUS CHANGES

This syllabus is subject to change. It is my intent to stick as close to the original syllabus as possible. However, if there are errors found or unforeseen events that necessitate a change, I may need to do so. Any changes to the syllabus will be at least announced in Canvas and generally mentioned in our live Zoom sessions. Once this announcement has been made, it is your responsibility to note and keep track of these changes.

# TENTATIVE COURSE SCHEDULE

| **Session** | **Module** |
| --- | --- |
| 1 - January 10 | 1: Research Workflows and Resources |
| 2 - January 17 | 2: Instrument Design and Exploratory Factor Analysis |
| 3 - January 24 | 3: Confirmatory Factor Analysis and SEM |
| 4 - January 31 | 4: Multilevel Methods/Analysis |
| 5 - February 7 | 5: Text Analysis I |
| 6 - February 14 | 6: Text Analysis II |
| 7 - February 21 | 7: Profile Analysis |
| 8 - February 28 | 8: Meta Analysis |
| 9 - March 6 | 9: Qualitative Methods |
| X - March 13 | Spring Break |
| 10 - March 20 | 10: High Performance Computing |
| 11 - March 27 | 11: Machine Learning |
| 12 - April 3 | 12: Bayesian Methods |
| 13 - April 10 | 13: Social Network Analysis |
| 14 - April 17 | 14: Advanced Data Collection & Handling |
| 15 - April 24 | 15: Choose Your Own (Methodological) Adventure |

Note: The assignment of topics to weeks is subject to change until the links become active in the course GitHub page (at least two weeks in advance).