

Introduction to Research Methods

BAS 490 – DL2 (3 Credits)
Canvas/Online
Fall, 2025

*Dates and times in this course refer to Eastern Standard Time (EST)

Syllabus is subject to change. This document was last revised on August 21, 2025
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Instructor Information

Instructor: Beth Adams Roemmelt, MA, BSN
Email: badamsro@gmu.edu
What you can call me: Beth
Office Hours: By appointment. Schedule by email and meet via Teams.

Textbook Requirement

The following textbook is required for the course. You may rent or purchase an e-book or physical copy.

[Devlin, A. S. \(2020\). *The research experience: Planning conducting, and reporting research*. \(2nd Edition\). Sage Publishing.](#) **Paperback ISBN: 9781544377957**

Course Description

Course Overview:

BAS 490 is the first course in a two-part sequence required for completion of the Bachelor of Applied Science (BAS) degree at GMU. This course introduces students to the foundational principles of research methodology. Students will explore their individual research interests, formulate research questions, conduct literature reviews, and identify appropriate data collection methods. A key component of the course is the development of an Action Research Proposal (ARP) on a selected topic.

The second course in the sequence, BAS 491: Applied Sciences Capstone, builds on this foundation. In BAS 491, students will implement the research project proposed in BAS 490, conduct data analysis, and report their findings.

BAS 490 Student Learning Objectives:

- Develop a foundational understanding of research methodologies.
- Apply research skills and knowledge to design an Action Research Proposal.
- Present and obtain instructor approval for the ARP, which will serve as the basis for the final capstone project in BAS 491.

Course Format:

BAS 490 is delivered fully online/asynchronous. Students are responsible for engaging with all course materials, including assigned readings, lecture videos, and instructional notes. Course requirements include participation in discussions, completion of general assignments, quizzes, and exams, as well as development of the ARP project.

Consistent engagement and time management are critical to success. Students are expected to adhere to the course schedule and meet all deadlines and expectations outlined in the syllabus.

Grading and Assignments

Final grades are determined according to the following scale. ***Please, do not ask for extra credit; It is not an option.***

A	B+	B	C+	C	D	F
90 - 100%	87 - 89%	80 - 86%	77 - 79%	70 - 76%	60 - 69%	< 60%
1080 – 1200pts	1044 – 1079pts	960 – 1043pts	924 - 959pts	840 – 923pts	720 – 839pts	< 720pts

Final grades in the course will be determined based on student success of the following evaluations and assessments. Your grade is based on total points earned out of 1200 possible points.

- Action Research Proposal Project = 600 pts (50%)
- Exams = 220 pts (18.5%)
- General Assignments = 220 pts (18.5%)
- Discussion = 160 pts (13%)

*****A grade of C or higher in the course is required to advance to BAS 491.***

Action Research Project Proposal (50%)

ARP Proposal	600
Phase I	160
Phase II	160
Phase III	160
Phase IV	120

Your Capstone- the Action Research Project (ARP) will span across span two semesters, BAS 490 & 491. The ARP will be written in the form of an academic/research paper with the following sections: Abstract, Table of Contents, Introduction, Statement of Purpose, Literature Review, Methodology, Results, Discussion, and References. In BAS 490, your work will focus only on the proposal, including the Introduction (including Statement of Purpose), Literature Review, Methodology, and References sections. By the end of this semester, you will have written a full proposal for your chosen research topic/question and uploaded a short video that presents your proposal. ***This project will serve as the basis for your BAS 491 course and be continued.***

You will have four ARP deliverables for BAS 490 (see calendar for due dates):

Phase I: Introduction, Statement of Purpose, & Literature Sections with References: Specific information on content, template, and style/formatting are given in Week 5 of the course.

Phase II: Methodology Section (with revised/corrected Phase 1 & References): Specific information on content, template, and style/formatting are given in Week 10 of the course.

Phase III: Final Proposal (full Introduction, Statement of Purpose, Literature Review, and Methodology sections with References): Specific information on content, template, and style/formatting are given in Week 14 of the course.

Phase IV: Presentation and Comments: Specific information on content, template, and style/formatting are given in Week 15 of the course.

Late submission of Phases I, II & III will result in a deduction of 15 points per calendar day. Presentation videos and comments (Phase IV) will not be accepted late, as it is due on the last day of class.

Exams (18.5%)

Exams	220
Exam 1	82
Exam 2	82
Exam 3	56

Three exams will be administered throughout the semester to evaluate students' comprehension and critical analysis of course content. Exams 1 and 2 will primarily focus on the material covered in the respective units preceding each exam. Exam 3 will contain some new material and some questions pertaining to all course materials.

All exams are open-note and may be completed using any course-related resources except collaboration with other individuals, which is strictly prohibited. Exams will be delivered via Canvas during the designated exam week. Each exam must be completed in a single sitting within a 75-minute time limit. Once the exam is submitted or exited, it cannot be resumed. Students are responsible for ensuring a stable internet connection before beginning, as interruptions may result in the inability to complete the exam.

General Assignments (18.5%)

General Assignments	220
Syllabus & Capstone Quiz	25
Basic Structure & APA Style- Quiz	20
Literature Search- Writing	30
Identify the Design- Quiz	15
Create a Survey- Writing	20
Basic Statistics- Quiz	17
True Experiments - Writing	20
Identify the Method- Quiz	8
Is it Ethical?- Writing	20
Recruitment Flyer- Writing	20
Assessment of an Undergraduate Capstone Project - Writing	25

Each module will consist of small assignments to help students apply and/or practice course content. Assignments will vary in the amount of time and effort required to complete them. They include small quizzes, written assignments, or observations/reflections.

All assignments should be completed and turned in on time. There will be a 10% per day grade penalty for late assignments.

Discussion (13%)

<i>Discussions</i>	<i>160</i>
Welcome Discussion	20
Exploring Research Interests	20
Article Critique	20
Reviewing Previous Proposals	20
Quasi-Experiments	20
Quantitative or Qualitative	20
Recruiting Participants & Gathering Data	20
Reflect & Look Ahead	20

Students will complete discussions on topics as scheduled. Please read this section carefully.

Posting Discussions

Discussion assignments will be posted in the Discussion Board section of the Canvas course. When a discussion is assigned, a new thread will appear containing the prompt. Students are expected to respond to the prompt and engage in thoughtful, respectful dialogue with their classmates. All discussion activity must align with the course Respect Policy.

Discussions are intended to simulate a virtual classroom environment where students can critically engage with course content and each other.

- **Initial Post:** Students must respond directly to the discussion prompt with a well-developed post demonstrating thoughtful reflection and engagement with course material. While there is no strict word count, posts should aim for approximately **200 words** to ensure sufficient depth. Initial posts are due by **Friday at 11:59 PM** of the assigned week. Note that Canvas is configured so you must submit your initial post before viewing others' contributions.
- **Peer Responses:** In addition to your original post, you are required to respond to at least two classmates by **Sunday at 11:59 PM** of the same week. While there is no official word count for replies, a minimum of approximately 100 words is recommended. Responses must demonstrate meaningful engagement—simple affirmations such as “Great point!” or “I agree” are insufficient and will not receive full credit. Where applicable, support your responses with references to course materials or external sources.

All posts and responses must be written in full sentences, using correct grammar and spelling. It is recommended that you compose your posts in a word processor to check for errors before submitting them to the discussion board.

Plagiarism is strictly prohibited. Copying text or ideas from any source without proper attribution constitutes an academic integrity violation. Suspected cases of plagiarism will be addressed in accordance with the university's Academic Standards Policy. If you are unsure whether a citation is necessary, err on the side of caution and include one. This applies to both original posts and peer responses. Discussion posts may not be turned in late or made-up. Your peers are relying on you to do your part.

Course Format and Technology Requirements

This course is fully online, meaning there are no physically required face-to-face encounters. Except for the required textbook, all learning materials will be available through Canvas. Please read through this section carefully as it details the technology requirements of the course. The schedule at the end of the syllabus will detail the week-to-week breakdown of the semester.

Hardware

You will need access to a Windows or Mac computer with 2 Ghz or faster processor, 100GB hard drive, at least 4 GB RAM (8 GB recommended) and access to a fast and reliable broadband internet connection (e.g., cable, DSL). A larger screen is recommended for better visibility of course material. You will need speakers or headphones to listen to recorded content and a headset with a microphone is recommended for the best experience. For Hard Disk Space required taking a distance education course, consider and allow for:

1. The storage amount needed to install any additional software and
2. Space to store work that you will do for the course.

If you consider the purchase of a new computer, please go to [ITS-Approved Computer Hardware Standards for Faculty & Staff](#) to see recommendations.

Students owning Macs or Linux should be aware that some courses may use software that only runs on Windows.

Software

This course uses Canvas as the learning management system (LMS). You will need a browser and operating system that are listed compatible or certified with Canvas (See [Canvas Browser & Computer Requirements](#)). You will certainly need plugins that will allow you to stream videos through Kaltura and YouTube. You will also need PowerPoint and Acrobat reader. It is possible that course materials may need additional software such as [Java](#) and/or [Real Media Player](#). Your computer should be capable of running current versions of those applications.

Note: If you are using an employer-provided computer or corporate office for class attendance, please verify with your systems administrators that you will be able to install the necessary applications, and that system or corporate firewalls do not block access to any sites or media types.

You must check the course webpage frequently for course content, assignments, and discussions. Access to Canvas and GMU email are required to participate successfully in this course. Check [the IT Support Center](#) website. Navigate to [ITS Canvas Student Help](#) for help and information about Canvas. In the menu bar to the left, you will find all the tools you need to become familiar with for this course. Take time to learn each. Make sure you run a system check a few days before class. <https://its.gmu.edu/knowledge-base/canvas-student-help/>

Course and Institution Policies

Course Policies

Class Continuity

Unless there is a significant disruption to Canvas, the course will proceed as scheduled. All assignments remain due as outlined in the syllabus unless explicitly changed by the instructor via official communication. University holidays and inclement weather do not impact the course schedule, given its online and asynchronous format.

Every effort will be made to follow the published course schedule and policies. However, the instructor reserves the right to make adjustments as necessary due to unforeseen circumstances. Any changes will be communicated promptly via Canvas and GM email.

Communication and Weekly Updates

Course updates and announcements will be communicated weekly through Canvas and GM email. Students are responsible for ensuring their GM email account is active and checked regularly. All email correspondence with the instructor must be conducted through your official GM account. For questions regarding course content, readings, or assignments, feel free to reach out via email.

Office Hours

Office hours are available by appointment. To schedule a meeting, please email the instructor to arrange a time for a virtual session via Microsoft Teams.

Respect and Conduct Policy

Students are encouraged to actively participate, ask questions, and express differing viewpoints. While respectful disagreement is welcome, all interactions must remain civil and considerate of others' perspectives, values, and life experiences. Discriminatory, offensive, or hateful remarks will not be tolerated and may result in a significant grade penalty or other disciplinary action.

Course Withdrawal and Important Dates

Students are responsible for being aware of and adhering to add/drop deadlines and withdrawal dates. These are outlined in the course calendar and should be cross-referenced with the university's official academic calendar for accuracy.

Artificial Intelligence (AI) Usage Policy**Permitted Use of AI Tools**

Students are permitted to use artificial intelligence tools (such as ChatGPT, Claude, Bard, or other AI writing assistants) to support their learning and assist with assignments in this course so long as you do so in an ethical and responsible manner. However, AI usage must be transparent, properly documented, and supplement rather than replace your independent critical thinking and original work.

Required Documentation for AI-Assisted Work

When submitting any assignment that involved AI assistance, students must include **all** the following components:

1. In-Text Citations

All AI-generated or AI-assisted content must be clearly cited within the text using the following format:

Example: "According to my analysis using ChatGPT, the primary factors include..." (OpenAI, 2024)

AI assistance should be acknowledged even for brainstorming, outlining, or editing support.

2. Reference Page Entry

Include a complete citation for the AI tool on your reference page:

- OpenAI. (2024). ChatGPT (GPT-4) [Large language model]. <https://chat.openai.com>
- Anthropic. (2024). Claude [Large language model]. <https://claude.ai>

3. Prompt Documentation

Submit a separate document containing:

- **All prompts** submitted to the AI tool(s).
- **All complete AI responses** received.

- **Multiple iterations** if you refined your prompts.
- **Timestamp** and **AI model version** used.

4. Original Submission Materials

Provide your original work that was inputted into or served as the foundation for AI assistance, including:

- Initial drafts or outlines
- Research notes or source material
- Any preliminary work completed before AI consultation.

5. Submission Format

All AI-assisted assignments must be submitted with:

- The final assignment document (with proper in-text citations)
- AI Documentation Appendix containing prompts and responses.
- Original work/source materials folder

Academic Standards for AI Usage

Using AI tools in an unethical or irresponsible manner, such as copying or paraphrasing the output without citation or transparency, using the output as your own work without verification or integration, using the output to misrepresent your knowledge, or failure to properly document AI usage constitutes academic dishonesty and will be addressed in accordance with university policies and will result in a zero grade for the assignment.

If you have any questions about what constitutes ethical and responsible use of AI tools, please consult instructor **before** submitting your work.

Academic Standards

Academic Standards exist to promote authentic scholarship, support the institution's goal of maintaining high standards of academic excellence, and encourage continued ethical behavior of faculty and students to cultivate an educational community which values integrity and produces graduates who carry this commitment forward into professional practice.

As members of the George Mason University community, we are committed to fostering an environment of trust, respect, and scholarly excellence. Our academic standards are the foundation of this commitment, guiding our behavior and interactions within this academic community. The practices for implementing these standards adapt to modern practices, disciplinary contexts, and technological advancements. Our standards are embodied in our courses, policies, and scholarship, and are upheld in the following principles:

- **Honesty:** Providing accurate information in all academic endeavors, including communications, assignments, and examinations.
- **Acknowledgement:** Giving proper credit for all contributions to one's work. This involves the use of accurate citations and references for any ideas, words, or materials created by others in the style appropriate to the discipline. It also includes acknowledging shared authorship in group projects, co-authored pieces, and project reports.

- **Uniqueness of Work:** Ensuring that all submitted work is the result of one's own effort and is original, including free from self-plagiarism. This principle extends to written assignments, code, presentations, exams, and all other forms of academic work.

Violations of these standards—including but not limited to plagiarism, fabrication, and cheating—are taken seriously and will be addressed in accordance with university policies. The process for reporting, investigating, and adjudicating violations is [outlined in the university's procedures](#). Consequences of violations may include academic sanctions, disciplinary actions, and other measures necessary to uphold the integrity of our academic community.

The principles outlined in these academic standards reflect our collective commitment to upholding the highest standards of honesty, acknowledgement, and uniqueness of work. By adhering to these principles, we ensure the continued excellence and integrity of George Mason University's academic community.

Student responsibility: Students are responsible for understanding how these general expectations regarding academic standards apply to each course, assignment, or exam they participate in; students should ask their instructor for clarification on any aspect that is not clear to them.

Students with Disabilities

Disability Services at George Mason University is committed to upholding the letter and spirit of the laws that ensure equal treatment of people with disabilities. Under the administration of University Life, Disability Services implements and coordinates reasonable accommodations and disability-related services that afford equal access to university programs and activities. Students can begin the registration process with Disability Services at any time during their enrollment at George Mason University. If you are seeking accommodations, please visit <https://ds.gmu.edu/> for detailed information about the Disability Services registration process. Disability Services is in the Student Union Building I (SUB I), Suite 2500. Email: ods@gmu.edu. Phone: (703) 993-2474.

Student responsibility: Students are responsible for registering with Disability Services and communicating about their approved accommodations with their instructor *in advance* of any relevant class meeting, assignment, or exam.

FERPA and Use of GMU Email Addresses for Course Communication

The [Family Educational Rights and Privacy Act \(FERPA\)](#) governs the disclosure of [education records for eligible students](#) and is an essential aspect of any course. **Students must use their GMU email account** to receive important University information, including communications related to this class. Instructors will not respond to messages sent from or send messages regarding course content to a non-GMU email address.

Student responsibility: Students are responsible for checking their GMU email regularly for course-related information, and/or ensuring that GMU email messages are forwarded to an account they do check.

Title IX Resources and Required Reporting

As a part of George Mason University's commitment to providing a safe and non-discriminatory learning, living, and working environment for all members of the University community, the University does not discriminate on the basis of sex or gender in any of its education or employment programs and activities. Accordingly, **all non-confidential employees, including your faculty member, have a legal requirement to report to the Title IX Coordinator, all relevant details obtained directly or indirectly about any incident of Prohibited Conduct** (such as sexual harassment, sexual assault, gender-based stalking, dating/domestic violence). Upon notifying the Title IX Coordinator of possible Prohibited Conduct, the Title IX Coordinator will assess the report and determine if outreach is required. If outreach is required, the

individual the report is about (the “Complainant”) will receive a communication, likely in the form of an email, offering that person the option to meet with a representative of the Title IX office.

For more information about non-confidential employees, resources, and Prohibited Conduct, please see [University Policy 1202](#): Sexual and Gender-Based Misconduct and Other Forms of Interpersonal Violence. Questions regarding Title IX can be directed to the Title IX Coordinator via email to TitleIX@gmu.edu, by phone at 703-993-8730, or in person on the Fairfax campus in Aquia 373.

Student opportunity: If you prefer to speak to someone *confidentially*, please contact one of Mason’s confidential employees in Student Support and Advocacy ([SSAC](#)), Counseling and Psychological Services ([CAPS](#)), Student Health Services ([SHS](#)), and/or the [Office of the University Ombudsperson](#).

Additional Resources

A variety of student services are available:

- Distance Education Services, University Libraries (<http://library.gmu.edu/distance>)
- Writing Center (<http://writingcenter.gmu.edu/>)
- Learning Services (<https://learningservices.gmu.edu>)

University Counseling Services

Life is stressful and we all need a little support sometimes. Students are encouraged to contact Counseling & Psychological Services (3129 Student Union Building I, <http://caps.gmu.edu/>) at 993-2380 or - [Counseling and Psychological Services \(gmueu\)](#) for assistance with any kind of psychological/life problem or crisis.

Course Calendar

The schedule below outlines the topics to be covered and the corresponding assignments for the semester. Students are expected to follow this schedule closely and complete all assignments by the designated deadlines. Timely submission and consistent engagement are essential for success in the course.

Week	Dates	Text	Main Topics	Due
Week 1	8/25 – 8/31	Ch. 1	Introducing Research & Preview to APA Style	^(D) Welcome Discussion; ^(G) Syllabus & Capstone Quiz; ^(G) Basic Structure & APA Style
Week 2	9/1 – 9/7	Ch. 2	Generating Research Ideas	^(G) Literature Search; ^(D) Exploring Research Ideas
Week 3	9/8 – 9/14	Ch. 3	Research Design	^(G) Identify the Design; ^(D) Article Critique
Week 4	9/15 – 9/21	Ch. 5 & 6	Measures, Assessments, & Surveys	^(G) Create a Survey; ^(D) Review of Previous Proposals
Week 5	9/22 – 9/28		Conclude Unit I	^(E) Exam 1; ^(AR) ARP Phase I
Week 6	9/29 – 10/5	Ch. 7	Correlation & Non-Experiments	^(G) Basic Stats; ^(D) Quasi-Experiments
Week 7	10/6 – 10/12	Ch. 9 & 10	Experimental Research	^(G) True Experiments
Week 8	10/13 – 10/19	Ch. 8	Qualitative Research	^(G) Identify the Method; ^(D) Quantitative or Qualitative?
Week 9	10/20 – 10/26	Ch. 4	Ethics and IRB	^(G) Is it Ethical?
Week 10	10/27 – 11/2		Conclude Unit II	^(E) Exam 2; ^(AR) ARP Phase II
Week 11	11/3 – 11/9	Ch. 11	Participant Recruitment	^(G) Recruit Flyer; ^(D) Recruiting Participants and Gathering Data
Week 12	11/10 – 11/16	Ch. 12	Organizing & Analyzing Data	^(G) Assessment of an Undergraduate Capstone Project
Week 13	11/17 – 11/23	Ch. 13	Writing and Presenting	^(D) Reflect & Look Ahead
Week 14	11/24 – 11/30		Conclude Unit III	^(E) Exam 3; ^(AR) ARP Phase III
Week 15	12/1 – 12/7		Conclude Course	^(AR) ARP Phase IV

Assignment Key. “^(D)” refers to Discussion Assignments; “^(G)” refers to General Assignments; “^(E)” refers to Exams; “^(AR)” refers to Action Research Assignment

Important Dates:

8/25: First Day of Classes

9/2: Last Day to Add Classes

9/8: Last Day to Drop (100% tuition refund)

9/16: Last Day to Drop (50% tuition refund)

9/17-9/30: Unrestricted Withdrawal Period (no tuition refund)

10/1-10/27: Selective Withdrawal Period (no tuition refund)

[Please consult Mason’s Academic Calendars for the most up-to-date information on withdrawal dates, university holidays, and other important deadlines.](#)