



## *HLC Accreditation Evidence*

- Example STAT 1850 Research Methods Syllabus

URL:

Office of Origin: Vice President of Instruction

Contact(s):

- Vice President of Instruction

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# STAT 1850 Research Methods I 21118 1

SPRING 2022 Section 1 1 Credits 01/11/2022 to 05/12/2022

## Meeting Times

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### HYBRID

#### COURSE SHELL

*Students are advised to block out a set period of time at least three times a week in which to engage in online coursework. You will have weekly assignments.*

#### *STEM LAB S-136*

Tuesday, 13:00 to 16:00, STEM LAB

## Contact Information

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### Instructor: Dr. Kristen B. Hathcock

Email: [hathcockk@bartonccc.edu](mailto:hathcockk@bartonccc.edu)

Office: 620-792-9348

Phone: 620-282-2260

#### Office Hours

By Appointment

## Course Description

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The course will outline the research methods used to acquire knowledge in STEM-related professions. Students will be introduced to research tools which include conducting literature reviews, writing annotated bibliographies, utilization of research methods to collect and analyze qualitative and quantitative data, formulation of research questions, communication of research results, and use of computers to access, organize, analyze, and display science data.

#### Prerequisite(s)

MATH 1828 College Algebra with a grade C or better (or higher level math course) OR appropriate math placement score AND any Science class with Lab, with a grade C or better.

#### Course As Viewed In The Total Curriculum

Research Methods I may be used to help fulfill STEM curriculum at Barton Community College that can be used to fulfill degree requirements. In addition, it provides those students majoring in STEM professions an opportunity to participate in research at the undergraduate level.

This course transfers credit to all Kansas Regent Universities and may be used to help fulfill a general education requirement at many. Depending on the program and institution, this course may transfer as part of the core curriculum.

The transferability of all courses will vary among institutions, and perhaps even among departments, colleges, or programs within an institution. Institutional requirements may also change without prior notification. Students are responsible to obtain relevant information from intended transfer institutions to insure that the courses the student enrolls in are the most appropriate set of courses for the transfer program.

## Outcomes & Competencies

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Barton Community College is committed to the assessment of student learning and to quality education. Assessment activities provide a means to develop an understanding of how students learn, what the student know, and what the student can do with their knowledge. Results from these various activities guide Barton, as a learning college, in finding ways to improve student learning.

### Course Outcomes, Competencies, and Supplemental Competencies:

- A. Outline and identify the fundamental models of research methods used in STEM careers.
  - 1. Describe, discuss and analyze the core concepts using appropriate research language in various STEM research models and design.
- B. Outline and identify the various research methodologies
  - 1. Compare and contrast the methodologies used in STEM-research
- C. Produce a valid written, ethical STEM experiment for presentation.
  - 1. Identify areas in STEM fields in which the student has strong interest.
  - 2. Locate and evaluate research literature in an area of student personal interest.
  - 3. Critically analyze scientific claims made in popular and academic media.
  - 4. Submit an individual experimental research project for presentation at a national conference such as the [National Conferences on Undergraduate Research \(NCUR\)](#).
- D. Demonstrate how knowledge of valid scientific methods can improve and create knowledge in STEM fields.
  - 1. Demonstrate evidence-based, collaborative research, including but not limited to observation interviewing, surveys, and active/field research.
  - 2. Examine and work with a variety of research tools.

## Materials

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### Research Methods

**Author:** Joseph Adjei

**Publisher:** Creative Commons

**Edition:** 1st

**Availability:** Download from files

**Price:** Free

[Research Methods \(https://bartonccc.campusconcourse.com/Creative%20Commons\)](https://bartonccc.campusconcourse.com/Creative%20Commons)

### American Psychological Association.

**Author:** Publication manual of the American psychological association

**Publisher:** American Psychological Association.

**Edition:** 6th

### Qualitative Research Methods: A DATA COLLECTOR'S FIELD GUIDE

**Author:** WOODSONG, MACK, MACQUEEN,GUEST

**Publisher:** fhi360

**Edition:** 1st

**Availability:** OER

**Price:** FREE

You will find the resources in the files

### OER TEXTBOOK

Literature Reviews for Education and Nursing Graduate Students - pdf download from files

[Examples \(https://press.rebus.community/literaturereviewседunursing/\)](https://press.rebus.community/literaturereviewседunursing/)

Optional  
Availability: Files  
Price: FREE

## Supplemental Readings will be posted in CANVAS

# \* Instructor Policies

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### INSTRUCTOR'S EXPECTATIONS OF STUDENTS IN CLASS

#### Student Value and Honor Code

Barton embraces diversity/inclusion in our student body, workforce, curriculum and community. We recognize that diversity and inclusion support learning, promote excellence, and prepare a global citizenry. To that extent our classes provide a forum which allows for open communication that supports:

- **PURPOSEFUL** a place where faculty and students share academic goals and work together to strengthen teaching and learning on the campus.
- **OPEN** a place where freedom of expression of beliefs is uncompromisingly protected and where civility is role modeled and powerfully affirmed.
- **JUST** a place where the value and integrity of each person is honored and respected.
- **DISCIPLINED** a place where individuals accept their obligations to the group and where well-defined governance procedures guide behavior for the common good.
- **CARING** a place where the well-being of each member is sensitively supported and where service to others is encouraged.
- **HONEST** a place where an academic community is committed to upholding the highest ideals of integrity and the related values of honesty, trust, cooperation, respect, and responsibility.

#### Instructor - Student Communication Expectations

##### *Email:*

Our primary method of communication will be [hathcockk@bartonccc.edu](mailto:hathcockk@bartonccc.edu). It is Barton policy that we use our Barton email addresses to conduct all correspondence. This is my preferred email.

Do not hesitate to contact me by using my email or the canvas inbox.

You are expected to check your Barton email frequently and respond to me through your Barton email address.

Please make sure you have set up your O365 mailbox on your phone if you frequently use your phone to access your email.

\*\*\*I will not be able to respond to personal email addresses.

I will respond within 12-24 hours M-F.

24-48 hours Sat-Sun

##### **Email Etiquette**

You are expected to check the announcements and / or your canvas app within the same time frame that I have set for my email responses.

Please review the excellent article by Molly Wharton (2017), [U Can't Talk to Ur Professor Like This](#) for more information on email etiquette.

##### *Phone:*

*My office number is 620.792.9348*

You can also reach me via phone, the vm leaves me an email message.

7 am and 7 pm CST.

## What is Netiquette and Why is it Important?

The Core Rules of Netiquette are excerpted from the book *Netiquette* by Virginia Shea. Click on each rule for elaboration.

- [Introduction](#)
- [Rule 1: Remember the Human](#)
- [Rule 2: Adhere to the same standards of behavior online that you follow in real life](#)
- [Rule 3: Know where you are in cyberspace](#)
- [Rule 4: Respect other people's time and bandwidth](#)
- [Rule 5: Make yourself look good online](#)
- [Rule 6: Share expert knowledge](#)
- [Rule 7: Help keep flame wars under control](#)
- [Rule 8: Respect other people's privacy](#)
- [Rule 9: Don't abuse your power](#)
- [Rule 10: Be forgiving of other people's mistakes](#)

### Discussion Board Netiquette Example

At heart, Netiquette (etiquette for the Internet) is simple, good manners and business courtesy. Some of it may seem basic, but some infringements can result in major problems for others or can create an unintended insult to another user. Please read [The Core Rules of Netiquette](#) (Shea, 1994) for more detailed information.

Communicating with your instructor for any type of problem is important in order to succeed in this course.

Courteous, professional conduct on the Internet is mandatory. Disruptive and/or offensive behavior will not be tolerated and will result in dismissal from the course. [Reference \(http://www.albion.com/netiquette/corerules.html\)](http://www.albion.com/netiquette/corerules.html)

### ACADEMIC INTEGRITY

The definition for [integrity](#) is: "the quality of being honest and having strong moral principles; moral uprightness"; morality is defined by your social circles. So, to make it simple, this is best defined by character "*doing the right thing when no one is looking*". If I expect you to act and behave with integrity, then I need to set the example.

The following is a list of *what you should expect from me* in terms of academic integrity:

- Make sure that what I teach is consistent with the most current knowledge in my field to the best of my ability,
- To admit mistakes when made **EVEN** if they are not "caught" by students,
- To treat each student with the dignity and respect they deserve based upon their status as a human being,
- To understand and meet students' needs particularly when circumstances beyond their control impact their academic performance,
- Make sure that each student is given an equal opportunity to succeed in my course by:
- Providing the **SAME** study material for all students on each exam as seen on Canvas.
- Providing access to student in both review sessions and by appointment.
- Providing every student with the **SAME** opportunity for extra credit assignments.
- Providing every student with identical exam score adjustments if needed.

The following is a list of *what I expect from you, the student* in terms of academic integrity:

- I expect that you will work hard at my course and take full responsibility for the grade you receive at the end of the semester,
- I expect that you will do all of your own work on both quizzes and exams. In other words you will not receive or use any unauthorized assistance on both quizzes and exams.

- For quizzes this simply means that you will not allow someone else to give you the answers or to take the quiz for you. You may use any other resource (lecture notes, the book, powerpoint presentation etc... at your disposal for these assessments.
- For exams the study materials that I permit are those found on canvas.
- I also expect that you will not GIVE unauthorized assistance on quizzes or exams.
- I expect you to be honest in all your communication with me.

### LATE POLICY

Late assignments (exams, labs, homework, and discussions) are not accepted and must be completed by the designated time and date.

Assignment due dates are posted within the course and are all due by 11:59 pm Central Standard Time on that date.

**Be aware that the discussion assignments have two due dates.** If extensions are needed, then the student must email the instructor through Canvas before the due date of the assignment with the reason why an extension is needed.

Forgetting to complete the assignment and poor time management are not valid reasons for requiring an extension to complete an assignment.

### QUESTIONS

Please never hesitate to ask questions. We can all learn from questions asked. Remember, the only dumb question is the one that's never asked!

Questions are integral parts of the learning process, so please, ask away! I have set up a Virtual Office through SLACK. This is a phone and browser APP that notifies me when you are in the application.

This is for you to ask general questions that benefit both you and your classmates. You can ask each other questions here as well. You can ask a question in open forum or through DM.

## ✓ Grading Methods

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### Grading Scale

ASSIGNMENTS, PROPOSAL, RESEARCH, PARTICIPATION AND ATTENDANCE:

#### Percentage of Final Grade

Participation and Attendance 10%

Proposal/Didactics Assignments 30%

Research 60%

Your letter grade will be determined by the following scale:

90% - 100% = A

80% - 89.99% = B

70% - 79.99% = C

60% - 69.99% = D

Below 59.99% = F

## Academic Integrity

Academic Integrity is scholarship based on honesty, trust, respect, responsibility, fairness, and courage. Barton Community College pledges to uphold these core values of integrity in all aspects of teaching and learning. Students are the authors of submitted work and shall give credit to outside sources and other's work or ideas.

In all aspects undertaken by students, faculty, staff, and all other stakeholders of Barton Community College, the following pledge applies: On my honor as a Cougar, I am acting with integrity in academics. I am acting per personal and institutional values and refraining from any form of academic dishonesty, and I will not tolerate the academic dishonesty of others.

Acts of academic dishonesty, intended or unintended, are subject to Procedure 2502 [Academic Integrity](#) and may result in the grade of XF. Barton defines an XF grade as failure as a result of a violation of Academic Integrity.

## Disability Services

Any student seeking an accommodation under the provisions of the Americans with Disability Act (ADA) is to notify Student Support Services via email at [disabilityservices@bartonccc.edu](mailto:disabilityservices@bartonccc.edu)

## Student Code of Conduct

The College reserves the right to suspend a student for conduct that is determined to be detrimental to the College educational endeavors as outlined in the College Catalog, Student Handbook, and College Policy & Procedure Manual. (Most up-to-date documents are available on the College webpage.)

## Civil Rights Equity & Title IX

Barton Community College adheres to all federal and state civil rights laws, including Title IX, banning discrimination in public institutions of higher education. The College will not discriminate against any employee, applicant for employment, student or applicant for admission on the basis of many protected categories. Please refer to the entire policy at the link below.

Title IX protects against discrimination on the basis of sex, gender, sexual orientation, gender identity, including discrimination due to all forms of sexual harassment and sexual misconduct.

*Annually, all enrolled students are provided the opportunity to participate in online Title IX training. The training link is sent to the student's Barton issued email account generally within the first month of enrollment.*

Barton's Civil Rights Equity Policy (Policy 1132) is found at: [https://docs.bartonccc.edu/policies/1132-Civil\\_Rights\\_Equity\\_Resolution.pdf](https://docs.bartonccc.edu/policies/1132-Civil_Rights_Equity_Resolution.pdf) ([https://docs.bartonccc.edu/policies/1132-Civil\\_Rights\\_Equity\\_Resolution.pdf](https://docs.bartonccc.edu/policies/1132-Civil_Rights_Equity_Resolution.pdf))

## Problem Resolution

The College encourages an open and frank atmosphere in which any problem, complaint, suggestion, or question receives a timely response from the appropriate college staff. If a student disagrees with established rules of conduct, policies, practices, or if they feel their rights have been infringed upon, they can express their concern through the problem resolution procedure. No student will be penalized for using the problem resolution procedure, or for voicing a complaint in a timely and business-like manner. Students are directed to the procedure linked below and are advised to pay attention to the limitations of the procedure and the strict adherence to timelines noted.

[https://docs.bartonccc.edu/procedures/2615-problem\\_resolution.pdf](https://docs.bartonccc.edu/procedures/2615-problem_resolution.pdf) ([https://docs.bartonccc.edu/procedures/2615-problem\\_resolution.pdf](https://docs.bartonccc.edu/procedures/2615-problem_resolution.pdf))

## Course Outline

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When	Topic	Notes
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When	Topic	Notes
<b>Module 0</b> Week 1: 01/19 - 01/24 STEM Lab, CANVAS and REMOTE	ORIENTATION	<h2><u>Welcome and Objectives</u></h2> <ul style="list-style-type: none"> <li>• Explain the major research concepts and the relationship between theory and research.</li> <li>• Formulate research problems and hypothesis.</li> <li>• Choose appropriate research methodology.</li> <li>• Plan and conduct research using different methods and processes</li> <li>• Understand the importance of research ethics and integrate research ethics into the research process.</li> <li>• Describe and compare quantitative, qualitative and mixed research methods.</li> <li>• Construct an effective research proposal that incorporate SMART research objectives.</li> <li>• Construct an effective data collection instruments.</li> <li>• Assess published journal article that uses one of the primary research methods in the field.</li> </ul>
Module 1 STEM Lab, CANVAS and REMOTE	Academic Integrity	
Module 3 STEM Lab, CANVAS and REMOTE	Research Overview	<h2><u>Research Overview</u></h2> <p>Read pages 18-20 in Research Methods by Dr. Joseph K. Adjei</p> <ul style="list-style-type: none"> <li>• Design science</li> <li>• Problem awareness, suggestion, development, evaluation, conclusion.</li> <li>• Natural science</li> <li>• Problem identification, research question, data collection, data analysis. conclusion.</li> <li>• Designing experiments</li> <li>• Design principles/guidelines.</li> <li>• Types of experimental design.</li> </ul>
Module 2 STEM Lab, CANVAS and REMOTE	Foundations	<h2><u>Why do Research?</u></h2> <p>Read pages 15- 18 in Research Methods by Dr. Joseph K. Adjei</p> <ul style="list-style-type: none"> <li>•Methods of Acquiring Knowledge</li> <li>•Tenacity, Intuition, Authority, Rational and Empirical, Scientific Methods</li> <li>•What scientific is research?</li> <li>•Definition and overview of important concepts</li> <li>•Why scientific research?</li> </ul>



When	Topic	Notes
Module 3 STEM Lab, CANVAS and REMOTE	The Literature review	<p data-bbox="482 159 1524 212"><b><u>The Lit Review and Annotated Bibliography</u></b></p> <p data-bbox="482 218 1524 270">Read pages 33-37 in Research Methods by Dr. Joseph K. Adjei</p> <ul data-bbox="482 277 1524 464" style="list-style-type: none"> <li>•How to find a topic</li> <li>•How to identify supporting literature</li> <li>•Reading and Understanding Literature</li> <li>•Literature review</li> <li>•How to review relevant literature</li> <li>•Writing the review</li> </ul> <p data-bbox="482 470 1524 522"><b><u>Literature Review Support - Examples</u></b></p> <p data-bbox="482 529 1524 581"><a href="https://libguides.newcastle.edu.au/Litreviews">University of New Castle (https://libguides.newcastle.edu.au/Litreviews)</a></p> <p data-bbox="482 588 1524 640"><b><u>Annotated Bibliographies of Lit Reviews Support - Examples</u></b></p> <p data-bbox="482 646 1524 699"><a href="https://owl.purdue.edu/owl/general_writing/common_writing_assignments/annotated_bibliographies/index.html">Purdue Owl (https://owl.purdue.edu/owl/general_writing/common_writing_assignments/annotated_bibliographies/index.html)</a></p> <p data-bbox="482 705 1524 821">An <b>annotation</b> is a summary and/or evaluation. Therefore, an <b>annotated bibliography</b> includes a summary and/or evaluation of each of the sources. Depending on your project or the assignment, your annotations may do one or more of the following: <b>Summarize, Assess, Reflect.</b></p> <p data-bbox="482 827 1524 879">For more help, see our handouts on <a href="#">evaluating resources</a>.</p>

When	Topic	Notes																						
Module 4 STEM Lab, CANVAS and REMOTE	Research Methods - Quantitative and Qualitative	<p data-bbox="482 170 1406 260"><b><u>Compare and Contrast Qualitative and Quantitative Methods</u></b></p> <p data-bbox="482 275 1117 302">Read pages 21- 32, 49-56 in Research Methods by Dr. Joseph K. Adjei</p> <ul data-bbox="482 327 1162 474" style="list-style-type: none"> <li>• Quantitative measurement and evidence</li> <li>• Assumptions, methods, strengths, weaknesses, data collection strategies</li> <li>• Qualitative measurement and evidence</li> <li>• Assumptions, methods, strengths, weaknesses, data collection strategies</li> <li>• Mixed types of evidence</li> </ul> <p data-bbox="789 506 1219 558" style="text-align: center;"><b>Differences Between Qualitative and Quantitative Research Methods</b></p> <table border="1" data-bbox="537 590 1466 1507"> <thead> <tr> <th data-bbox="545 600 1003 657">Qualitative Methods</th> <th data-bbox="1008 600 1466 657">Quantitative Methods</th> </tr> </thead> <tbody> <tr> <td data-bbox="545 663 1003 743">Methods include focus groups, in-depth interviews, and reviews</td> <td data-bbox="1008 663 1466 743">Surveys</td> </tr> <tr> <td data-bbox="545 749 1003 863">Primarily inductive process used to formulate theory</td> <td data-bbox="1008 749 1466 863">Primarily deductive process used to test pre-specified concepts, constructs, and hypotheses that make up a theory</td> </tr> <tr> <td data-bbox="545 869 1003 982">More subjective: describes a problem or condition from the point of view of those experiencing it</td> <td data-bbox="1008 869 1466 982">More objective: provides observed effects (interpreted by researchers) of a program on a problem or condition</td> </tr> <tr> <td data-bbox="545 989 1003 1039">Text-based</td> <td data-bbox="1008 989 1466 1039">Number-based</td> </tr> <tr> <td data-bbox="545 1045 1003 1125">More in-depth information on a few cases</td> <td data-bbox="1008 1045 1466 1125">Less in-depth but more breadth of information across a large number of cases</td> </tr> <tr> <td data-bbox="545 1131 1003 1211">Unstructured or semi-structured response options</td> <td data-bbox="1008 1131 1466 1211">Fixed response options</td> </tr> <tr> <td data-bbox="545 1218 1003 1268">No statistical tests</td> <td data-bbox="1008 1218 1466 1268">Statistical tests are used for analysis</td> </tr> <tr> <td data-bbox="545 1274 1003 1354">Can be valid and reliable: largely depends on skill and rigor of the researcher</td> <td data-bbox="1008 1274 1466 1354">Can be valid and reliable: largely depends on the measurement device or instrument used</td> </tr> <tr> <td data-bbox="545 1360 1003 1440">Time expenditure lighter on the planning end and heavier during the analysis phase</td> <td data-bbox="1008 1360 1466 1440">Time expenditure heavier on the planning phase and lighter on the analysis phase</td> </tr> <tr> <td data-bbox="545 1446 1003 1497">Less generalizable</td> <td data-bbox="1008 1446 1466 1497">More generalizable</td> </tr> </tbody> </table>	Qualitative Methods	Quantitative Methods	Methods include focus groups, in-depth interviews, and reviews	Surveys	Primarily inductive process used to formulate theory	Primarily deductive process used to test pre-specified concepts, constructs, and hypotheses that make up a theory	More subjective: describes a problem or condition from the point of view of those experiencing it	More objective: provides observed effects (interpreted by researchers) of a program on a problem or condition	Text-based	Number-based	More in-depth information on a few cases	Less in-depth but more breadth of information across a large number of cases	Unstructured or semi-structured response options	Fixed response options	No statistical tests	Statistical tests are used for analysis	Can be valid and reliable: largely depends on skill and rigor of the researcher	Can be valid and reliable: largely depends on the measurement device or instrument used	Time expenditure lighter on the planning end and heavier during the analysis phase	Time expenditure heavier on the planning phase and lighter on the analysis phase	Less generalizable	More generalizable
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When	Topic	Notes
Module 5 STEM Lab, CANVAS and REMOTE	Formulating Research Questions and Hypothesis	<p><b><u>Formulating Questions</u></b></p> <p>Read pages 39-46 in Research Methods by Dr. Joseph K. Adjei</p> <ul style="list-style-type: none"> <li>• Qualitative Research Questions</li> <li>• Quantitative Research Questions and Hypothesis</li> <li>• Mixed Method Research Questions and Hypothesis</li> </ul> <p><b><u>Writing the Question Support</u></b></p> <p><a href="https://www.scribbr.com/methodology/types-of-research/">Scribbr (https://www.scribbr.com/methodology/types-of-research/)</a></p> <p><a href="https://www.scribbr.com/research-process/research-question-examples/">Scribbr Examples (https://www.scribbr.com/research-process/research-question-examples/)</a></p> <p>Qualitative Research - matching Research questions with strategy - See module for instructor upload</p>
STEM Lab, CANVAS and REMOTE	Research Design- Quantitative and Qualitative	<p><b><u>Research Design Definition</u></b></p> <p><b><u>Research design</u></b> is the framework of research methods and techniques chosen by a researcher. The design allows researchers to hone in on research methodology that are suitable for the subject matter and set up their studies up for success.</p> <p>The design of a research topic explains the type of research that a researcher will conduct.</p> <p>There are three main types of research design: Data collection, measurement, and analysis.</p> <p>Proper research design sets your study up for success.</p> <ol style="list-style-type: none"> <li>1. Accurate purpose statement</li> <li>2. Techniques to be implemented for collecting and analyzing research</li> <li>3. The method applied for analyzing collected details</li> <li>4. Type of research methodology</li> <li>5. Probable objections for research</li> <li>6. Settings for the research study</li> <li>7. Timeline</li> <li>8. Measurement of analysis</li> </ol> <p><b><u>Research Design Support - Examples</u></b></p> <p><a href="https://www.wssu.edu/about/offices-and-departments/office-of-sponsored-programs/pre-award/_Files/documents/develop-quantitative.pdf">Quantitative Design (https://www.wssu.edu/about/offices-and-departments/office-of-sponsored-programs/pre-award/_Files/documents/develop-quantitative.pdf)</a></p> <p><a href="https://www.formpl.us/blog/descriptive-research">Formplus (https://www.formpl.us/blog/descriptive-research)</a></p> <p><a href="https://www.questionpro.com/blog/what-is-research/">Questionpro (https://www.questionpro.com/blog/what-is-research/)</a></p> <p><a href="https://library.sacredheart.edu/c.php?q=29803&amp;p=185902">Sacred Heart University (https://library.sacredheart.edu/c.php?q=29803&amp;p=185902)</a></p>

When	Topic	Notes
Module 5 STEM Lab, CANVAS and REMOTE	Research Methodology - Data Collection and Analysis	<p><b><u>Data Collection and Analysis</u></b></p> <p>Read pages 57 - 61 in Research Methods by Dr. Joseph K. Adjei</p> <p>Research methodology is the specific procedures or techniques used to identify, select, process, and analyze information about a topic.</p> <p><a href="https://research-methodology.net/research-methodology/research-types/">Classifying Research Methodology (https://research-methodology.net/research-methodology/research-types/)</a>- is based on your approach.</p> <p>Are you approaching your investigation from a philosophical viewpoint, from a design viewpoint, a sampling approach, etc.? In the end, the overreaching arch still falls under Qualitative, Quantitative and Mixed Methods.</p> <p>The way you phrase the question you are asking is based on the approach you are using.</p> <p>Types of methodology according to the purpose of the study, the knowledge it creates, the user group, the research problem it investigates etc..</p> <p><b>General Format of a Research Publication</b></p> <ul style="list-style-type: none"> <li>• Background of the Problem (ending with a problem statement) – Why is this important to study? What is the problem being investigated?</li> <li>• Review of Literature – What do we already know about this problem or situation?</li> <li>• Methodology (participants, instruments, procedures) – How was the study conducted? Who were the participants? What data were collected and how?</li> <li>• Analysis – What are the results? What did the data indicate?</li> <li>• Results – What are the implications of these results? How do they agree or disagree with previous research? What do we still need to learn? What are the limitations of this study?</li> </ul>
STEM Lab, CANVAS and REMOTE	Data Analysis & Reporting Research Findings	<p>Read pages 66-67 in Research Methods by Dr. Joseph K. Adjei</p> <ul style="list-style-type: none"> <li>• Organisation of research report</li> <li>• Citation and referencing</li> </ul> <p><a href="https://owl.purdue.edu/owl/purdue_owl.html">Purdue Owl APA 6th ed (https://owl.purdue.edu/owl/purdue_owl.html)</a></p>
STEM Lab, CANVAS and REMOTE	Journal Writing and Poster Presentation	

## Additional Items

### Special Notes

- This course is challenging and 100% attendance and participation is expected of all students. It is clear that students who attend class regularly, stay up with the readings, complete the assignment with full effort, and who invest more than 10 hours a week typically find that they enjoy the course more and achieve at least a B or better in this course. As in any course, work of a significantly high caliber in each of the components of this course is considered to be a B (i.e., good) or an A (i.e., exceptional) work. It is especially important that you be on time for class, have completed your reading assignments prior to class-time, and that you are prepared for discussion of these materials in class.
- *All assignments in this course are expected to be word-processed and graphs/tables should be computer-generated.*
- ***All assignments should be completed using APA-style, including the use of a title page.*** Assignments are due at the beginning of class or lab or on a predetermined due date and should be submitted electronically through Bb. Word processing and data management software are available in several computer labs on campus. You should consult your APA Publication Manual for all writing assignments.

- All students are expected to have access to the student computer network. It is your responsibility to ensure that your access is up-to-date during the semester.
- Tutors are available for this course through the Learning Resource Center (LRC). If you should find that you are not doing as well in this course as you would like, please see me immediately. I will help you as best I can. You can also arrange short-term or long-term tutoring through [tutor.com](http://tutor.com).

The course syllabus is subject to change at any time during the semester.

Due to the COVID-19 virus, please keep abreast of BCC policies with regard to classes and programs at

<https://www.bartonccc.edu/covid19>.