**BARTON COMMUNITY COLLEGE**

**COURSE SYLLABUS**

1. **GENERAL COURSE INFORMATION**

Course Number: STAT 1850

Course Title: Research Methods I

Credit Hours: 1

Prerequisites: 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.

Division/Discipline: Academics Division/Math/Science

Course Description:

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.

**II. INSTRUCTOR INFORMATION**

 Instructor Name:

 Office:

 Email:

 Phone:

**III. COLLEGE POLICIES**

Students and faculty of Barton Community College constitute a special community engaged in the process of education. The College assumes that its students and faculty will demonstrate a code of personal honor that is based upon courtesy, integrity, common sense, and respect for others both within and outside the classroom.

Plagiarism on any academic endeavors at Barton Community College will not be tolerated. The student is responsible for learning the rules of, and avoiding instances of, intentional or unintentional plagiarism. Information about academic integrity is located in the Student Handbook.

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.)

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.

**IV. 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.

General education requirements and the transferability of all college 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. http://bartonccc.edu/transfer/schools

**V. ASSESSMENT OF STUDENT LEARNING**

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:

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

**VI. INSTRUCTOR’S EXPECTATIONS OF STUDENTS IN CLASS**

**VII. TEXTBOOKS AND OTHER REQUIRED MATERIALS**

**VIII. REFERENCES**

**IX. METHODS OF INSTRUCTION AND EVALUATION**

**X. ATTENDANCE REQUIREMENTS**

**XI. COURSE OUTLINE**