

YEARS 1 AND 2: Associate in Arts Degree | YEARS 3 AND 4: Bachelor of Arts in Data Science with Emphasis in: Bioinformatics

The suggested pathways included on this document show coursework that fulfills requirements for the Associate in Arts Degree at MCKCK as well as requirements for the Bachelor of Arts in Data Science degree at William Jewell College.

For official course, degree, and graduation requirements, students should refer to each institution's catalog which supersedes this document.



WILLIAM JEWELL COLLEGE

SEMESTER 1			
MCC Requirement Fulfilled	MCC Course	William Jewell College Course	William Jewell Degree Requirement Fulfilled
Oral Communication	COMM 100: Fundamentals of Speech (3)	COM 100: Fundamentals of Speech Communication	Elective
Natural Sciences-Lab	BIOL 101: General Biology (5)	BIO 999	Elective
Humanities and Fine Arts	ART 108: Survey of Art (3) or MUSI 108: Music Appreciation (3)	ART 999 (or) MUS 999	Level 2 Explorations: Culture and Traditions 1 of 2 classes required from 2 different disciplines)
Written Communication	ENGL 101: Composition and Reading 1 (3)	CTI 102: Written Communications	Level 1 Foundations: English Composition Requirement Fulfilled
Humanities and Fine Arts	HIST 133: Foundations of Western Civilization (3) OR HIST 134 (3) Modern Western Civilization (3)	HIS 103: World History I OR HIS 104: World History II	Elective
			Total Hours Completed: 17
SEMESTER 2			
Humanities and Fine Arts	ENGL: 268: Women's Literature (3)	ENG 255: Literary Topics	Level 2 Explorations: Culture and Traditions (2 of 2 courses Fulfilled from 2 different disciplines)
Physical Science	CHEM 111: General College Chemistry (5)	CHE 121/121L: General Chemistry I	Prerequisite for CHEM 112
Written Communication	ENGL 102: Composition and Reading 2 (3)	ELE 999	Elective
Social and Behavioral Sciences-Civics/American Institutions	HIST 120: US History to 1865 (3) (or) HIST 121: US History since 1865 (3) (or) POLS 136: Introduction to U.S. National Politics (3)	HIS 121: Foundations of US History (or) HIS 122: The Modern United States (or) POLS 135: Introduction to Political Science	*Level 2 Explorations: Power and Justice (1 of 2 classes required from 2 different disciplines)
			Total Hours Completed: 14
SEMESTER 3			
Mathematical Science	MATH 180: Analytic Geometry and Calculus 1 (5)	MAT 109	Level 1 Foundations: Mathematics Requirement Fulfilled Requirement for major
Social and Behavioral Sciences-Civics/American Institutions	PSYC 140: Intro to Psychology (3)	PSY 101: Introduction to Psychological Science	*Level 2 Explorations: Power and Justice (2 of 2 classes required from 2 different disciplines)
Humanities and Fine Arts	**CHIN 101, OR FREN 101, OR GERM 101 OR SPAN 101 (5)	CHI 111, or, FRE111, or SPAN 111	Elective
Elective	BIOL 208: Microbiology (5)	BIO 321: Microbiology	Requirement for Major
			Total Hours Completed: 18
SEMESTER 4			
Social and Behavior Sciences	GEOG 113: Cultural/Human Geography (3)	GEO 999	Elective
Elective	**CHIN 102, OR FREN 102, OR GERM 102 OR SPAN 102 (5)	CHI 112, FRE 112 or SPAN 112	Foreign Language requirement met by successfully completing a <u>second</u> (college-level) course in any foreign language.
Elective	CHEM 112: General College Chemistry and Lab (5)	CHE 122/122L	Requirement for Major
			Total Hours Completed: 13

To complete the Critical Thought and Inquiry (CTI) Curriculum, the remaining CTI courses listed below must be taken at William Jewell College:

CTI Sacred Secular (4 Credit Hours)
 CTI 100: The Responsible Self (4 Credit Hours)
 CTI 150: Identity and Society (2 Credit Hours)
 CTI 400 Capstone (4 Credit Hours)

The maximum credit towards the 124 hours required for the Bachelor of Arts degree that a student may apply in one subject-matter field is 40 credit hours.

A student must have a minimum of 84 hours outside the one subject matter field that can be counted toward graduation.

The courses suggested in this guide are the preferred courses that best prepare students for success at William Jewell College. For a Level 2 Explorations requirement in the William Jewell College core curriculum to be fulfilled using transfer credit, students **MUST** have successfully completed two (2) courses in two (2) different disciplines.

MCKCK courses used to fulfill William Jewell College Level 2 Core Curriculum Requirements are as follows:

Power and Justice:
 HIST 120 OR HIST 121 OR POLS 136 AND PSYC 140

Culture and Traditions:
 ART 108 OR MUS 108 AND ENGL 268

*Any course designated as a "Level 2 Explorations course" **will transfer as an elective** if the student transfers to Jewell with less than 26 hours completed post-high school graduation OR does not successfully complete the 2 classes required for each category.

**World language requirement for students whose primary major will lead to a BA degree:

- Students must complete a college-level second introductory course in a world language (the 112 course at Jewell or the equivalent) or a higher-level course.
- It is suggested that students who have previously studied a world language but who have not yet earned credit for a college-level second introductory course take the language placement exam to further help with proper placement. Transfer students with high placement scores (above the 112 level) will be invited to take an optional 112 equivalency exam with a faculty member in the Languages Department. Passing this equivalency exam satisfies the B.A. world language requirement.

Disclaimer: All statements in this publication concerning course offerings and requirements are subject to constant review and change based on the needs of the college and related department(s). The content on this document is provided for informational purposes and does not substitute for formal academic advising or constitute a contract. Please be aware that all pathways maybe altered to account for course availability and/or to fit the individual needs of students

Bachelor of Arts in DATA SCIENCE-BIOINFORMATICS EMPHASIS

Suggested 2-year course plan

This Suggested Course Advisement Plan is an unofficial publication of William Jewell College.
For official course requirements, students should refer to the institution catalog which supersedes this document.

**Students must earn a grade of C- or higher in each of these required courses.*

FALL 1		
Course Number	Course Name	Credit Hours
CTI 100	The Responsible Self	4
CTI 150	Identity and Society	2
DTS 150	Introduction to Data Science	4
PHY 215	Introduction to Computational Modeling	2
BIO 233/233L	Cell and Molecular Biology and Lab	5
		TOTAL: 17

SPRING 1		
Course Number	Course Name	Credit Hours
DTS 190	Introduction to Programming	4
Level 2 CTI: Sacred Secular	Course based on availability	4
BIO 234/234L	Genetics and Lab	5
		TOTAL: 13

SUMMER 1		
Course Number	Course Name	Credit Hours
DTS 200	Data Modeling, Databases and Querying	4
		TOTAL: 4

FALL 2		
Course Number	Course Name	Credit Hours
DTS 350	Data Visualization	4
DTS 400	Data Science Internship	2
CTI 4XX	CTI Capstone	4
Elective:	Course of student's choosing	4
		TOTAL: 14

SPRING 2		
Course Number	Course Name	Credit Hours
DTS 218	Applied Statistics	4
DTS 360	Data Mining	4
DTS 410	Data Science Capstone	2
BIO 440	Bioinformatics	4
		TOTAL: 14

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