

# James Madison University Advising Guide

BRCC Associate of Science Degree and JMU Advising Guide for a major in Integrated Science and Technology (ISAT). See ISAT Advising Notes for more information on math placement and the major.

## First Year

### First Semester

Course #	Course Description	Credits
ENG 111	College Composition I	3
HIS ____	History Elective	3
MTH 263	Calculus I	4
CHM 111	College Chemistry I	4
SDV ____	Student Development (100 or 101)	1

### Second Semester

Course #	Course Description	Credits
ENG 112	College Composition II	3
_____	History or Social Science Elective	3
MTH 264	Calculus II	4
BIO 101	General Biology I	4

## Second Year

### Third Semester

Course #	Course Description	Credits
_____	Literature/Humanities/Fine Arts Elective	3
MTH 245	Statistics I	3
PHY 201 or 241	General College Physics I or University Physics I	4
CST 100 or 110	Principles of Public Speaking or Introduction to Communication	3
_____	Social Science Elective	3

### Fourth Semester

Course #	Course Description	Credits
_____	Literature Elective	3
PHY 202 or 242	General College Physics I or University Physics I (see notes)	4
_____	A.S. Science Elective (see notes)	3
_____	A.S. Science Elective	3
_____	A.S. Science Elective	3

Total Credits Required for Associate of Science Degree/JMU ISAT requirements - 61

## Advising Notes for ISAT

- The Bachelor of Science degree in Integrated Science and Technology is a four-year program (120 credit hours) that offers a broad technical foundation and practical problem-solving skills needed to tackle the challenges that society faces. ISAT lets students design a course of study that fits their own particular interests, giving them far more flexibility than traditionally organized programs typically offer. ISAT majors enjoy a range of options in choosing what to study – including the option to create their own area of concentration tailored to their interests. Students choose three sectors from the following to focus on: Applied Biotechnology, Energy, Environment, Engineering/Manufacturing, Information/Knowledge Management and Telecommunication, Networking and Security. For more information on the sectors, see [ISAT Sectors](#).
- The chart below delineates preferred courses by sector:

Sector	Foundation Course	VCCS Equivalent	RBC Equivalent
Environment	ISAT 112	CHM 111	CHEM 101
Energy	ISAT 212	PHY 241-242 and MTH 263-264	PHYS 201-202
IKM	ISAT 252	ITP 110 or 112	No equivalent

- Students interested in the IKM sector can substitute ITP 110 or 112 as an A.S. elective.
- Students interested in the Energy sector will need to take MATH 265 prior to or concurrently with PHY 242.