Information Systems and Analytics, BS

Program Description

Information Systems and Analytics is among the most in-demand majors today. More than ever before, organizations are seeking to derive actionable insights from large amounts of data to maintain their competitive advantage. Multiple career tracks in the Information Systems and Analytics Degree allow students to customize their education to fit their interests, develop new skills, and enhance their marketability to employers in a wide range of fields. Information Systems and Analytics mixes working with technology and people across a wide spectrum of disciplines.

Program Curriculum

120 credits

Utah Tech General Education Requirements

All Utah Tech General Education requirements must be fulfilled. A previously earned degree may fulfill those requirements, but courses must be equivalent to Utah Tech's minimum General Education standards in American Institutions, English, and Mathematics.

General Education Core Requirements (catalog.utahtech.edu/programs/generaleducation/#gerequirementstext)

Code	Title	Hours
English		3-7
Mathematics		3-5
American Institutions		3-6
Life Sciences		3-10
Physical Sciences		3-5
Fine Arts		3
Literature/Humanities		3
Social & Behavioral Sciences		3

Business Core Requirements

Code	Title	Hours
ACCT 2010	Principles of Accounting I	3
ISA 2010	Introduction to Business Data Analytics	3
FIN 2010	Introduction to Finance	3
ECON 2010	Micro Economics (SS, GC)	3
STAT 2040	Business Statistics	3
ISA 2050	Management Information Systems	3
MGMT 3050	Business Law I: Law in the Commercial Environment	3
ENGL 3010	Professional Writing and Business Ethics	3
MGMT 3400	Management & Organizations	3
MGMT 3600	Operations and Supply Chain Management (ALPP)	3
MKTG 3010	Marketing Principles (ALPP)	3

Information Systems & Analytics Core Requirements

Code	Title	Hours
ISA 3001	Info Sys and Analytics Intermediate Career Strategies	1
ISA 3020	SQL & Python for Analytics	3
ISA 4450	Project Management	3
ISA 4060	Big Data Analytics	3
ISA 4070	Data Visualization and Storytelling	3

ISA 4600	Senior Project (MGMT 4200 - Internship must be ISA related.)	3
or MGMT 4200R	Business Internship	
MGMT 4800	Strategic Management (ALPP)	3
or ACCT 4600	Accounting Practicum	

Information Systems & Analytics Elective Requirements

Code	Title	Hours
18 credits from the following or other approved courses		**18**
Students may take any of the courses listed below or other approved electives. The elective list below has been divided into suggested tracks. Students should contact their academic advisor for more information on choosing elective coursework. At least 9 credits must be from upper division classes.		

Code	Title	Hours
Analytics Track Suggested Courses		
CS 1400	Fundamentals of Programming	3
IT 1500	Cloud Fundamentals	1
IT 2300	Database Design & Management	3
MATH 2050	Applied Statistics with Programming	3
MATH 3050	Stochastic Modeling and Applications	3
ACCT 3010	Intermediate Accounting I	3
MGMT 4040	Quantitative Decision Analysis	3
ISA 4250R	Analytics & Modeling Practicum	1-3
FIN 3010	Intermediate Finance	3
FIN 4380	Financial Modeling and Decision Making	3
MKTG 4100	Marketing Research	3
MATH 4800	Industrial Careers in Mathematics	3

Code	Title	Hours
Systems Track Suggested Courses		
ISA 4250R	Analytics & Modeling Practicum	1-3
IT 1100	Introduction to Unix/Linux	3
IT 1200	A+ Computer Hardware/Windows OS	3
CS 1400	Fundamentals of Programming	3
IT 2400	Intro to Networking	3
IT 2500	Cloud Computing	3
IT 2700	Information Security	3
IT 3100	Systems Design and Administration	3
IT 3150	Windows Servers	3
IT 3300	DevOps Virtualization	3
IT 3400	Intermediate Computer Networking	3
IT 4200	DevOps Lifecycle Management	3
IT 4310	Database Administration	3
IT 4510	Ethical Hacking & Network Defense	3

Graduation Requirements

1. Complete a minimum of 120 college-level credits (1000 and above).
2. Complete at least 40 upper-division credits (3000 and above).
3. Complete at least 30 upper-division credits at Utah Tech for institutional residency.
4. Cumulative GPA 2.0 or higher.
5. "C-" or higher grade in the business core, IS&A core, and IS&A elective courses and an overall GPA of at least 2.5 in course work required for the major.

Graduation Plan

1st Year

Fall Semester	Hours	Spring Semester	Hours
SSC 1010	2	ACCT 2010	3
ISA 2010	3	ENGL 2010	3
ENGL 1010	3	STAT 2040	3
General Education (Mathematics-MATH 1040 recommended) (catalog.utahtech.edu/programs/generaleducation/#gerequirementstext)	3	Lower Division Specialization Elective	3
General Education (Fine Arts) (catalog.utahtech.edu/programs/generaleducation/#gerequirementstext)	3	General Education (Life Sciences) (catalog.utahtech.edu/programs/generaleducation/#gerequirementstext)	3
General Elective	1		
	15		**15**

2nd Year

Fall Semester	Hours	Spring Semester	Hours
ENGL 3010	3	ISA 3020	3
FIN 2010	3	ECON 2010	3
ISA 2050	3	MKTG 3010	3
Lower Division Specialization Elective	3	MGMT 3050	3
General Education (Physical Sciences) (catalog.utahtech.edu/programs/generaleducation/#gerequirementstext)	3	General Education (American Institutions) (catalog.utahtech.edu/programs/generaleducation/#gerequirementstext)	3
	15		**15**

3rd Year

Fall Semester	Hours	Spring Semester	Hours
ISA 3001	1	MGMT 3400	3
MGMT 3600	3	ISA 4070	3
General Education (Literature/Humanities) (catalog.utahtech.edu/programs/generaleducation/#gerequirementstext)	3	ISA 4450	3
Upper Division Specialization Elective	6	General Elective	3
General Elective	2	Upper Division ISA Elective	3
	15		**15**

4th Year

Fall Semester	Hours	Spring Semester	Hours
ISA 4060	3	MGMT 4800	3
Upper Division Spcialization Electives	6	ISA 4600 (Internship option must be ISA-related)	3
General Elective	6	Specialization Elective	6
		General Elective	3
	15		**15**

Total Hours 120

BS Information Systems & Analytics Program Learning Outcomes

At the successful conclusion of this program, students will be able to:

1. Evaluate real world business situations related to the core business functions of accounting, economics, finance, qualitative analysis, information systems, international business, legal and social environments, marketing & management.
2. Analyze real world business situations by identifying relevant business issues, performing appropriate quantitative and qualitative data analysis and synthesis, formulating viable courses of action.
3. Create and deliver professional quality oral presentations and written work products.
4. Analyze real world business situations by identifying relevant ethical issues, evaluating and synthesizing information, and formulating ethical courses of action.
5. Integrate current processes, technology, and analytical methods to provide actionable recommendations for decision makers.
6. Complete at least one industry certification that relates to the student's career path.