

BUSINESS ANALYTICS CERTIFICATE

Curriculum Plan

For Isenberg School of Management majors only

- Students pursuing the Business Data Analytics certificate are not eligible to complete the Artificial Intelligence (AI) in Business Certificate or the Information Technology (IT) Minor.
- At least 4 of the 5 courses (12 credits) must be taken at UMass Amherst (University, UNIV+ or UnivOnline) courses.
- AP, IB, and CLEP credits do not count toward the certificate.
- You must earn a 2.0 GPA or better in certificate courses, only one class may be passed with below a C.
- Practicum courses ending in 98 or independent studies ending in 96 will not count toward the certificate.
- Certificate courses may not be taken pass/fail.
- Only two courses may count toward both a certificate and another major, minor, or certificate. More info: <https://www.umass.edu/registrar/sites/default/files/UsingCoursesMultipleCredentials.pdf>
- Students are expected to fill out the certificate declaration form in their last semester. If requirements are successfully completed, the certificate will be recognized on the SPIRE transcript after graduation.

Semester taken	Course
Core Take the two courses listed below	
	OIM 240 Business Data Analysis (or RES-ECON 212 & OIM 210 or STATISTC 240 & OIM 210)
	OIM 350 Business Intelligence and Analytics <i>Prerequisite: OIM 210, seats reserved for OIM majors</i>
Programming* Choose one course from the list below <i>*Any additional programming course taken from the list will count as an elective</i>	
	OIM 303 Business Applications of Python 3 cr. (formerly OIM 297P; Prereq. OIM 210; seats reserved for OIM majors) OIM 307 Power Spreadsheets for Business Analysts 3 cr. (formerly OIM 297S; Prereq. OIM 210; seats reserved for OIM majors) MARKETNG 414 Marketing Analytics using R 3 cr. (formerly MARKETNG 490A, Senior and junior Isenberg majors only, Prerequisites: MARKETING 301 and one of the following - RES-ECON 211 or 212, STATISTC 240, or OIM 240) COMPSCI 119 Introduction to Programming (Python) 3 cr. (open to freshmen and sophomores first before opening to others) CICS 110 Foundations of Programming 4 cr. (formerly INFO 190S; open to Comp Sci majors first before opening to others) COMPSCI 121 Introduction to Problem Solving with Computers (Java) 4 cr. (no longer offered but satisfies the requirement for those who took it)
Electives Choose two courses from the course list below	

Elective course options

***Please note that not all classes are offered every semester**

***Enrollment restrictions are subject to change. Please refer to SPIRE for the most up to date information**

ACCOUNTG 311 Accounting Information Systems	OIM 320 Quality Management
FINANCE 304 Financial Modeling	OIM 321 Business Process Simulation
HT-MGT 377 Revenue Management	OIM 340 (390STB) Artificial Intelligence in Business
HT-MGT 387 Information Technology & Social Media in HTM	OIM 411 Supply Chain Analytics
HT-MGT 471 Financial Decision Making in Hospitality Industry	OIM 451 Information & Project Management
MARKETNG 412 Marketing Research	OIM 452 Business Processes & Enterprise Systems
MARKETNG 413 Social Media & Marketing Analytics	OIM 454 Machine Learning in Business
MARKETNG 455 Internet Marketing	OIM 461 Prescriptive Analytics for Business
MARKETNG 465 Retailing Management & Technology	OIM 463 (390STA) Business Data Visualization and Dashboard Development with AI
	SPORTMGT 461 Sport Analytics
	SPORTMGT 462 Advanced Sport Analytics

Elective Options	Enrollment Restrictions
ACCOUNTG 311 Accounting Information Systems	ACCOUNTG majors only Prerequisites: OIM 210 & ACCOUNTG 331
FINANCE 304 Financial Modeling	Finance majors only Prerequisite: FINANCE 301
HT-MGT 377 Revenue Management	Seniors, Juniors & Sophomores only
HT-MGT 387 Information Technology and Social Media in Hospitality and Tourism Management	Senior, Junior, & Sophomore Isenberg majors
HT-MGT 471 Financial Decision Making in Hospitality Indus	Senior & Junior Isenberg majors only
MARKETNG 412 Marketing Research	Senior & Junior Marketing majors only Prerequisites: MARKETING 301 and one of the following - RES-ECON 211 or 212, STATISTC 240, or OIM 240
MARKETNG 413 Social Media & Marketing Analytics	Isenberg School of Management Seniors only Prerequisite: MARKETNG 301
MARKETNG 455 Internet Marketing	Marketing majors only Prerequisite: MARKETNG 301
MARKETNG 414 Marketing Analytics using R	Senior & Junior Isenberg majors only Prerequisite: MARKETNG 301 and one of the following - RES-ECON 211 or 212, STATISTC 240, or OIM 240
OIM 320 Quality Management	Prerequisite: OIM 301
OIM 321 Business Process Simulation	Prerequisite: OIM 301
OIM 340 Artificial Intelligence in Business	Open to students with majors in the Isenberg School of Management Prerequisites: OIM 210 and 301
OIM 411 Supply Chain Analytics	
OIM 451 Information & Project Management	Seats reserved for OIM majors
OIM 452 Business Processes & Enterprise Systems	Seats reserved for OIM majors
OIM 454 Machine Learning in Business	Prerequisites: OIM 350 and either OIM 240, STATISTC 240, RES-ECON 211, or RES-ECON 212.
OIM 461 Prescriptive Analytics for Business	Senior & Junior OIM majors only Prerequisite: OIM 310
OIM 463 Business Data Visualization and Dashboard Development with AI	Open to OIM majors Prerequisite: OIM 340 and 350
SPORTMGT 461 Sport Analytics	Sport Management majors only
SPORTMGT 462 Advanced Sport Analytics	Prerequisite: SPORTMGT 461