

BUSINESS ANALYTICS WITH DATA SCIENCE (BBA IN BUSINESS ADMINISTRATION)

Mission Statement

The mission of the Mason School of Business of William & Mary is to serve the Commonwealth, the nation, and the global community both by offering high-quality educational programs at the undergraduate, graduate, and professional levels and by creating and communicating new knowledge. We fulfill this mission through:

Building a faculty whose research, teaching, and service influence students, business leaders, policy makers, and other scholars;

Engaging students in innovative educational experiences to nurture creativity, to mentor high ideals, and to accelerate ambitions of leadership that they will imagine the business opportunities of the day and seize them.

William & Mary initiated studies in business administration in 1919. The School of Business was formed in 1968 to administer both the undergraduate and graduate degree programs in business administration. The Mason School of Business was named in November 2005 in honor of alumnus Raymond A. Mason.

The undergraduate degree program normally leads to a Bachelor of Business Administration (BBA). Students who double major in a Business and an Arts and Sciences discipline may choose either as their primary major. Students will receive the degree that corresponds to their primary major (BBA for Business, BA or BS for Arts and Sciences).

Graduate programs lead to a Master of Business Administration (MBA), Master of Accounting (MAcc), or Master of Science in Business Analytics (MSBA). Detailed information about these programs is provided online at <http://mason.wm.edu>. All programs are accredited by the Association to Advance Collegiate Schools of Business International (AACSB International).

Undergraduate Business Program

The Undergraduate Business Program offers an individualized approach to business education. Each student is challenged to design an Individual Program of Study (IPS) that uniquely addresses their particular goals and interests including post-graduate plans.

Business majors are offered in four areas: Accounting; Business Analytics; Finance; Marketing. To promote breadth of study students may complement their major field of study by electing to pursue a concentration in a second business area. Concentrations are offered in the following ten areas: Accounting; Business Analytics; Consulting; Finance; Innovation & Entrepreneurship; Management and Organizational Leadership; Marketing; Supply Chain Analytics; Sustainability.

The first semester in the Undergraduate Business Program students complete the Integrated Foundation Semester. Students work in the same teams across classes, and take a cluster of courses including: business analytics, finance, marketing, computer applications, and business perspectives. Teams gain experience in making presentations in several courses this immersion semester. Ethical issues are addressed in various contexts. By the end of the semester all students have gained exposure

to the majors (Accounting; Business Analytics; Finance; Marketing) offered within the Undergraduate Business Program.

Many students in the Undergraduate Business Program combine their studies in business with a major or a minor in a department outside of the Mason School of Business. We also strongly encourage students to include an internship experience in their Individual Program of Study. Internships are not offered for academic credit through the business school.

The Mason School of Business believes every student should have an international experience. We have designed our curricula so all majors are able to earn their degree with an "International Emphasis." Our curricula permit flexibility allowing students to study abroad in the spring of their junior year; however, this goal may conflict with other goals such as completing a double major or an internship. Students interested in studying abroad should contact the Undergraduate Business Program and the Global Education Office in the Reves Center for International Studies for more information.

Students are encouraged to begin planning their Individual Program of Study in the Business School as soon as they determine that they have an interest in business.

Admission to the Majors Program

The Mason School of Business offers majors in the following four areas: Accounting; Business Analytics; Finance; Marketing. All students who wish to major in Business (whether as a primary or secondary major) must apply for admission to the Mason School of Business.

Our competitive admissions process is designed to identify students who will thrive academically and professionally, and who will contribute to our learning community through their unique background of talents and experiences. Details on our admission process can be found on our program website: <http://mason.wm.edu>.

To be considered for admission, all prospective business majors must meet the following qualifications prior to the semester of entry into the Business School: 54 credit hours and completion of the following prerequisite courses: Principles of Microeconomics, Introductory Calculus, Business Statistics (must include regression analysis), Essentials of Business, and Principles of Accounting. Students enrolled at William & Mary should consult the Undergraduate Business Program website (<http://mason.wm.edu> (<https://mason.wm.edu/>)) to determine which William & Mary courses will satisfy these requirements. Also, applicants to the Majors Program are required to have at least a 2.5 GPA at the time of application and at the time of program matriculation; however, the admission process is competitive, and meeting the minimum GPA does not guarantee acceptance into the business program. Please note that for matriculated students (current William & Mary students), the Business Statistics and Principles of Accounting course requirements must be completed at William & Mary, transfer credit from another institution will not be accepted.

Transfer students have a separate admissions process and timeline. Please refer to our website for more information (for the purposes of our admissions process, we define transfer students as any student who has completed less than 12 credit hours in residence at William and Mary).

The Undergraduate Business curricula are designed so that most students will begin the core program in the fall semester of their junior year. Thus, students normally apply for admission to the Mason School of Business during the spring semester of their sophomore year for

admission in the following fall semester. The Mason School of Business also accepts applications in the fall semester for admission in the following spring semester.

The deadlines for enrolled William & Mary students to apply to the Majors Program are February 1 for fall admission and September 15 for spring admission. Applications received by the deadline will be given preference over all late applications. Late applicants and transfer students should contact the Undergraduate Business Program in the Mason School of Business for additional information. Appeals from students who are denied admission should be directed to the Committee on Admissions, Academic Status and Degrees of the Mason School of Business by contacting the Undergraduate Business Program office. Petitions will only be reviewed if there is new information not previously included in the original application.

Students admitted to the Mason School of Business Majors and Minors Programs have priority when enrolling in oversubscribed courses. Students who are not admitted to the Major or Minor Programs are not eligible to declare a major or minor in the Mason School of Business regardless of whether they satisfy the course requirements stated in this catalog.

Committee on Admissions, Academic Status and Degrees

Upon admission to the Mason School of Business, all candidates for the BBA degree come under the jurisdiction of the School's administration including its Committee on Admissions, Academic Status and Degrees in all matters appropriately pertaining thereto.

Admission to the Minors Program

The Minors Program provides William & Mary students who are not in the Majors Program with an opportunity to gain in depth exposure to a business discipline. The Mason School of Business offers minors in the following areas: Accounting; Business Analytics; Finance; Management and Organizational Leadership; Marketing; Supply Chain Analytics. Please see the catalog section on Requirements for the Minors Program for specific details related to course requirements. Students are accepted into a particular Minors Program (e.g. Finance, Marketing) and cannot change the area of emphasis without approval from the Undergraduate Program. If applicable, students in the Minors Program may count up to six hours toward both their major and their Business minor.

Our competitive admissions process is designed to identify students who will thrive academically and professionally, and who will contribute to our learning community through their unique background of talents and experiences. Details on our admissions process can be found on our program website: <http://mason.wm.edu>.

Applicants to the Minors Program must have a minimum overall GPA of 2.50 at the time of application and at the time of program matriculation, have earned 54 credits and have satisfied all course prerequisites for the minor prior to the semester of entry in the Business School. Minor disciplines with course prerequisites are as follows:

- Business Analytics: BUAD 231 Business Statistics - Business Statistics
- Finance: BUAD 231 Business Statistics - Principles of Accounting, BUAD 231 Business Statistics - Business Statistics
- Marketing: ECON 101 Principles: Microeconomics - Principles of Microeconomics, ECON 102 Principles: Macroeconomics - Principles

of Macroeconomics, and BUAD 231 Business Statistics - Business Statistics (not required for admission but required as a prerequisite for BUAD 452 Marketing Research - Marketing Research)

- Supply Chain Analytics: BUAD 231 Business Statistics - Business Statistics

Note: Accounting, Innovation and Entrepreneurship, Management and Organizational Leadership have no prerequisites for admissions consideration.

The Mason School of Business accepts applications to the Minors Program in the fall and spring semesters. The deadlines for applying to the Minors Program (accounting, business analytics, finance, management and organizational leadership, marketing, and supply chain analytics) February 1 for fall admission and September 15 for spring admission. Prospective applicants should consult the Undergraduate Business Program in the Mason School of Business for additional information. Applications received by the deadline will be given preference over all late applications. Appeals from students who are denied admission should be directed to the Committee on Admissions, Academic Status and Degrees of the Mason School of Business by contacting the Undergraduate Business Program office. Appeals will only be considered if there is new information not previously included in the original application.

Students admitted to the Majors Program and the Minors Program have priority when enrolling for oversubscribed courses. Students who are not admitted to the Minors Program are not eligible to declare a minor in the Mason School of Business regardless of whether they satisfy the course requirements stated in this catalog.

Concentrations for Business Majors

The Mason School of Business is committed to an education that is integrated and multidisciplinary. These are important strengths that distinguish our programs. All majors complete an integrated core program that emphasizes exposure to the underlying business disciplines. In addition, many students will find it desirable to pursue a multidisciplinary curriculum that will include advanced study in a business discipline other than their major field. The concentration option is designed for students who wish to complete six to nine credit hours of advanced coursework in a business discipline other than their major field. Concentrations are available in the following ten areas: Accounting; Business Analytics; Consulting; Finance; Innovation & Entrepreneurship; Management and Organizational Leadership; Marketing; Supply Chain Analytics; Sustainability.

International Emphasis for Business Majors

The Undergraduate Business Program seeks to recognize the achievement of students in the Majors Program who have incorporated in their Individual Program of Study significant international experience. Students fulfilling the requirements set forth below will be described as completing an Individual Program of Study with an International Emphasis. This designation provides recognition for students who seek an international perspective.

The requirements for an International Emphasis include: (1) a course in international business; (2) an elective with an international emphasis that is related to your major or concentration, with a provision for exceptions as noted below; (3) a language and/or culture requirement; and (4) a

study abroad experience. These requirements are discussed in detail below:

1. You must complete BUAD 410 International Business Management - International Business Management, BUAD 412 Global Business Analysis - Global Business Analysis, BUAD 413 Global Business Immersion - Global Business Immersion, or the equivalent.
2. If you are majoring or concentrating in a discipline that offers an international course, you must successfully complete one course that has an international emphasis. In the event that for a particular Individual Program of Study no course with an international emphasis is offered, a student who has a minor may satisfy this requirement by successfully completing an international course in the discipline of the minor. For all other cases, you must seek approval for a course with an international emphasis that is appropriate for your Individual Program of Study.
3. You must successfully complete an approved elective that focuses on foreign language or culture. A course offered by the Department of Modern Languages at the College that focuses on commercial applications of a foreign language satisfies this requirement. This requirement is also satisfied by completing six semester hours of credit of language study beyond the 202 level. Other courses must be submitted for approval to the Undergraduate Business Program. No course will be approved unless the focus on language or the focus on culture is fundamental to the design of the course.
4. You must successfully complete a minimum of twelve semester hours of credit in a study abroad program(s). Only credits earned in a study abroad program(s) that are transferred back to William & Mary and appear on the official College transcript can be applied to satisfy this requirement. The credits can be earned over one semester or over time in separate study abroad experiences.

Supplemental Business School Fee

All students enrolled in business courses will be assessed a supplemental program fee. This fee will be applied to all courses with the BUAD prefix at a rate of \$250 per credit hour. Questions regarding additional scholarships should be directed to the Office of Financial Aid.

Student Honors

Beta Gamma Sigma is the national honorary society which recognizes excellence in academic achievement in schools of business administration. Beta Gamma Sigma was founded in 1907 to encourage and reward scholarship and accomplishment in the field of business studies, to promote advancement of education in the science of business, and to foster principles of honesty and integrity in business practice. Inclusion in Beta Gamma Sigma is by invitation only, and limited to the top 10% of the incoming senior class.

Academic Standing

Students are required to maintain a 2.0 overall grade point average and a 2.0 grade point average in business courses. A student who fails to maintain these standards will be on academic probation within the Mason School of Business. Students on academic probation must attain a 2.0 overall grade point average and a 2.0 business grade point average by the end of the next regular semester. If at the end of the probationary period the student has not met the minimum grade point requirements, the student's standing will be subject to review by the Committee on Admissions, Academic Status and Degrees of the Mason School of Business for possible dismissal. Unless specified as pass/fail in the

course description, business courses cannot be taken on a pass/fail basis.

Students who fail a required course in a business major or minor are required to retake the course in the next available semester in-residence at William & Mary.

Second Major

BBA degree candidates may declare two majors but only one major may be in the business disciplines. A maximum of six credits may be counted towards both majors.

Residency Requirement

Students admitted to the Undergraduate Business Program must complete four semesters as full-time admitted business students. A student may petition the Committee on Admissions, Academic Status and Degrees of the Mason School of Business to waive this residency requirement.

Major Requirements

All students applying for admission to the Majors Program are required to declare one of the following four majors: Accounting; Business Analytics; Finance; Marketing.

Requirements for the Minors Program

The Mason School of Business offers minors in the following areas: Accounting; Business Analytics; Finance; General Business Administration, Global Business; Management and Organizational Leadership; Marketing; Supply Chain Analytics. The Minors Program provides students who are not in the Majors Program with an opportunity to gain an in-depth exposure to a business discipline. Business majors are not eligible to declare a minor in the Mason School of Business. Students may count up to two courses toward both their major and a minor.

Elective Courses for Non-Business Students

Students who are not pursuing a formal program in the Mason School of Business may enroll on a space available basis in business classes if the student has satisfied course prerequisites and with permission from the Undergraduate Business Program office. All students taking courses with a BUAD prefix will be assessed a supplemental fee of \$250 per credit hour. Details can be found on our website: <http://mason.wm.edu> (<http://mason.wm.edu/>).

Independent Study

A student may enroll in an independent study course if a Raymond A. Mason School of Business faculty member agrees to be the faculty advisor for the project, two additional faculty members agree to be the faculty readers, and the Vice Dean for Faculty and Academic Affairs approves the independent study. An independent study course is not a replacement for a required course. The student should seek out a faculty member who has personal interest or experience in the area relating to the student's independent study proposal. Submitting a proposal is not a guarantee for enrollment in an independent study class. A faculty member is not required to participate in an independent study. All proposals and paperwork for the course should be finalized before the end of the add/drop period. The student may seek additional guidance from the undergraduate program office. At the conclusion of

the independent study, the student's final paper will be forwarded to the Vice Dean for Faculty and Academic Affairs for final review. Only students with a cumulative grade point average of 3.0 or higher may participate in independent study courses and exchange programs.

Mason School of Business Graduate Online Courses

Undergraduate students are not permitted to register in any courses offered through any Raymond A. Mason School of Business graduate online programs. Registration is restricted to graduate students.

Final Examinations

A final examination is an important part of the evaluation of each student's work and is expected in all courses except seminars, colloquia, studio, or writing courses where final examinations may be unnecessary or inappropriate. The final examination schedule can be viewed at www.wm.edu/registrar (<http://www.wm.edu/registrar>).

The time allocated for in-class final examinations is three hours, unless a shorter time is specified in the course syllabus. The deadline for returning take-home final examinations is the scheduled examination date for that class.

Except in narrowly defined circumstances, changes in the examination schedule are not allowed. Individual faculty members may not grant permission to reschedule or defer a final examination.

Requests to reschedule a final examination may be made when a student has three scheduled final examinations in four consecutive exam periods on consecutive days, when there is a conflict between a student's scheduled examinations, or when a student wishes to take an examination with a different section of the same course. Such requests to reschedule a final examination within the examination period should be filed with the Academic Wellbeing (<https://www.wm.edu/offices/deanofstudents/services/academic-wellbeing/forms/final-exam-schedule-adjustment-request.php>). Requests must be made by the last day of classes for the semester.

Requests to change final examinations made on the basis of extenuating circumstances, should be filed with the Office of Academic Wellbeing. Extenuating circumstances include:

1. Medical circumstances (physical and psychological) verified by a healthcare professional
2. International student travel complications without alternatives
3. Family emergency, such as death of a close family member
4. Conflict with a religious holiday/service
5. Interview or training for a permanent job that cannot be rescheduled
6. Interview for graduate or professional school
7. Activities in which the student is formally representing William & Mary

Students must provide supporting documentation with their request. Students should not assume that a request is approved until they receive written approval.

Final examinations that are deferred will be scheduled for the first full week of classes of the following regular semester. Students with deferred examinations will receive an initial grade of "I," incomplete. In this case,

the "I" grade should be changed as early in the following semester as possible.

Final Exams and Tests During the Last Week of Classes

No test or final examinations may be given during the last week of classes or during the period between the end of classes and the beginning of the examination period or during any reading period. Other assignments, such as projects, short quizzes, homework and papers may be due during the last week of classes as long as they do not total more than 25% of the final grade. There is no restriction on material due during the regularly scheduled final exam period.

Programs

- Accounting (BBA in Business Administration)
- Accounting, Minor
- Business Analytics with Data Science (BBA in Business Administration)
- Business Analytics with Supply Chain (BBA in Business Administration)
- Business Analytics, Minor
- Finance (BBA in Business Administration)
- Finance, Minor
- General Business Administration, Minor
- Global Business, Minor
- Innovation and Entrepreneurship, Minor
- Management and Organizational Leadership, Minor
- Marketing (BBA in Business Administration)
- Marketing, Minor
- Supply Chain Analytics, Minor

Concentrations available within Business Analytics with Data Science:

- Business Analytics with Data Science, Accounting Concentration
- Business Analytics with Data Science, Consulting Concentration
- Business Analytics with Data Science, Finance Concentration
- Business Analytics with Data Science, Innovation and Entrepreneurship Concentration
- Business Analytics with Data Science, Management and Organizational Leadership Concentration
- Business Analytics with Data Science, Marketing Concentration
- Business Analytics with Data Science, Supply Chain Analytics Concentration
- Business Analytics with Data Science, Sustainability Concentration

Degree Requirements for the Majors Program

Degree candidates must be students in good academic standing who have satisfied all general education and proficiency requirements; earned at least 60 semester credits in Arts and Sciences academic subjects; satisfied all core and major requirements of the Mason School of Business; and earned at least 120 semester hours of academic credits.

The Undergraduate Business Core Program common to all majors is as follows:

Business Core

Code	Title	Hours
BUAD 203	Principles of Accounting	3
BUAD 300	Business Perspectives and Applications	1
BUAD 311	Principles of Marketing	3
BUAD 317	Organizational Behavior and Management	3
BUAD 323	Financial Management	3
BUAD 330	Computer Skills for Business	1
BUAD 343	Legal Environment of Business	2
BUAD 350	Introduction to Business Analytics	3
BUAD 351	Operations Management	1.5
BUAD 352	Decision-making through Visualization and Simulation	1.5
BUAD 414	Global Strategic Management	3
Total Hours		25

Major Computing Requirement

All students are required to complete BUAD 330 Computer Skills for Business and use computer-based approaches within the curricula of the Mason School of Business. Students are required to submit papers and write-ups using current software applications. Students also are required to use spreadsheets in preparing analyses, and presentation software in preparing presentations. It is required that students acquire a laptop computer and appropriate software. Computer labs are also available on campus.

Business Analytics with Data Science Major

The major in Business Analytics with Data Science requires 12 credit hours in addition to the Core Program. The following nine credit hours must be part of the 12 credit hour requirement:

Code	Title	Hours
Requirements		
BUAD 466	Developing Business Intelligence	3
BUAD 467	Predictive Analytics	3
BUAD 468	Prescriptive Analytics	3
Additional Requirements		
Select three of the following:		9
BUAD 460	Big Data Analytics with Machine Learning	
BUAD 461	Lean Six Sigma Process Improve	
BUAD 462	Healthcare Informatics	
BUAD 463	Supply Chain Analytics	
BUAD 465	Managing Supply Chains in a Digital Economy	
BUAD 469	Advanced Modeling Techniques	
BUAD 482	Project Management	
BUAD 492	Special Topics (Business Analytics & Data Science Topics Only)	
Total Hours		18

Accounting Concentration

Students wishing to complete a concentration in Accounting must satisfy the requirements for the major and complete an additional six credit hours in advanced-level Accounting to be chosen from the following. These credits must include BUAD 301 Financial Reporting and Analysis.

Code	Title	Hours
Required Course		
BUAD 301	Financial Reporting and Analysis	3
Additional Requirement		
Select three of the following:		9
BUAD 302	Advanced Financial Reporting and Analysis	
BUAD 303	Strategic Cost Management	
BUAD 304	Not-for-Profit Accounting, Control and Analysis	
BUAD 305	Accounting Information Systems	
BUAD 404	Auditing and Internal Controls	
BUAD 405	Federal Taxation	
Total Hours		12

Consulting Concentration

Students wishing to complete a concentration in Consulting must satisfy the requirements for the major, and complete an additional six credit hours as specified below.

Code	Title	Hours
Select two of the following:		6
BUAD 431	Management Consulting	
BUAD 437	Change Management and Organizational Transformation	
BUAD 466	Developing Business Intelligence	
BUAD 482	Project Management	
Total Hours		6

Finance Concentration

Students wishing to complete a concentration in Finance must satisfy the requirements for the major and complete an additional six credit hours in advanced-level Finance to be chosen from the following.

Code	Title	Hours
Select two of the following: ¹		6
BUAD 327	Investments	
BUAD 329	Corporate Valuation and Credit Analysis	
BUAD 417	International Finance	
BUAD 419	Valuation	
BUAD 420	Financial History	
BUAD 421	Student Managed Investment Fund	
BUAD 422	Applied Financial Concepts	
BUAD 423	Corporate Financial Strategy	
BUAD 424	Derivatives and Risk Management	
BUAD 427	Advanced Investments	
BUAD 428	Behavioral Economics and Finance	
Total Hours		6

¹ These six credit hours must include BUAD 327 Investments or BUAD 329 Corporate Valuation and Credit Analysis or both.

Innovation and Entrepreneurship Concentration

Students wishing to complete a concentration in Innovation and Entrepreneurship must satisfy the requirements for the major, complete BUAD 340 Introduction to Innovation and Entrepreneurship Introduction to Innovation and Entrepreneurship, and complete an additional six credit hours as specified below.

Code	Title	Hours
BUAD 340	Introduction to Innovation and Entrepreneurship	3
Select two of the following:		6
BUAD 443	Entrepreneurial Ventures	
BUAD 451	Customer Insights for Innovation	
BUAD 453	Sustainability Inspired Innovation and Design	
BUAD 457	Creative Problem-Solving	
Total Hours		9

Management and Organizational Leadership Concentration

Students wishing to complete a concentration in Management and Organizational Leadership must satisfy the requirements for the major and complete an additional six credit hours to be chosen from the following courses:

Code	Title	Hours
Select two of the following:		6
BUAD 430	Diversity in the Workplace	
BUAD 433	Identity, Power, and Profit: Perspectives on DEI Work	
BUAD 435	Teams: Design, Selection, and Development	
BUAD 437	Change Management and Organizational Transformation	
BUAD 438	Leadership	
Total Hours		6

Marketing Concentration

Students wishing to complete a concentration in Marketing must satisfy the requirements for the major and complete an additional six credit hours in advanced-level Marketing to be chosen from the following:

Code	Title	Hours
Select two of the following:		6
BUAD 445	Product and Brand Management	
BUAD 446	Consumer Behavior	
BUAD 447	Customer Experience Mgmt	
BUAD 448	Marketing Strategy	
BUAD 450	Global Marketing	
BUAD 451	Customer Insights for Innovation	
BUAD 452	Marketing Research	
BUAD 453	Sustainability Inspired Innovation and Design	
BUAD 456	Advertising and Digital Marketing	
Total Hours		6

Supply Chain Analytics Concentration

Students wishing to complete a concentration in Supply Chain Analytics must satisfy the requirements for the major, and complete an additional six credit hours as specified below.

Code	Title	Hours
Select two of the following:		6
BUAD 461	Lean Six Sigma Process Improve	
BUAD 463	Supply Chain Analytics	
BUAD 465	Managing Supply Chains in a Digital Economy	
Total Hours		6

Sustainability Concentration

Students wishing to complete a concentration in Sustainability must satisfy the requirements for the major, and complete an additional six credit hours as specified below.

Code	Title	Hours
BUAD 453	Sustainability Inspired Innovation and Design	3
ENSP 101	Introduction to Environment and Sustainability	3
Total Hours		6