CARLOS ALVAREZ COLLEGE OF BUSINESS

Mission Statement
The Carlos Alvarez College of Business is dedicated to creating and sharing knowledge that enhances the translation of theory to practice. The College combines rigor with relevance and provides innovative solutions to global business challenges.

All Carlos Alvarez College of Business graduate business programs are currently accredited by AACSB International - The Association to Advance Collegiate Schools of Business - and conform to recommended guidelines.

College-wide Programs
- Master of Business Administration (p. 1)
- Master of Science in Business (p. 1)
- Master of Science in Data Analytics (p. 1)
- Executive Master of Business Administration (p. 1)
- Dual Master of Business Administration and Master of Public Health (p. 1)
- Graduate Certificate in Intelligence Studies (p. 5)
- Pre-Ph.D. Program (p. 1)

Department of Accounting (http://catalog.utsa.edu/graduate/business/accounting/)
  - Five-Year (150-Hour) Professional Accounting Program (http://catalog.utsa.edu/graduate/business/accounting/#degreeext)
  - Master of Accountancy (http://catalog.utsa.edu/graduate/business/accounting/#degreeext)
  - Doctor of Philosophy in Accounting (http://catalog.utsa.edu/graduate/business/accounting/#degreeext)

Department of Economics (http://catalog.utsa.edu/graduate/business/economics/)
- Master of Arts in Economics – General Economics Concentration (http://catalog.utsa.edu/graduate/business/economics/#degreeext)
- Master of Arts in Economics – Financial Economics Concentration (http://catalog.utsa.edu/graduate/business/economics/#degreeext)
- Master of Arts in Economics – Business Data Analysis and Forecasting Concentration (http://catalog.utsa.edu/graduate/business/economics/#degreeext)

Department of Finance (http://catalog.utsa.edu/graduate/business/finance/)
- Master of Science in Finance (http://catalog.utsa.edu/graduate/business/finance/#degreeext)
- Master of Science in Finance – Real Estate Finance and Development Concentration (http://catalog.utsa.edu/graduate/business/finance/#degreeext)
- Doctor of Philosophy in Finance (http://catalog.utsa.edu/graduate/business/finance/#degreeext)
- Graduate Certificate in Real Estate Finance and Development (http://catalog.utsa.edu/graduate/business/finance/#certificateext)

Department of Information Systems and Cyber Security (http://catalog.utsa.edu/graduate/business/informationsystemscybersecurity/)
- Master of Science in Information Technology (http://catalog.utsa.edu/graduate/business/informationsystemscybersecurity/#degreeext)
- Master of Science in Information Technology – Cyber Security Concentration (http://catalog.utsa.edu/graduate/business/informationsystemscybersecurity/#degreeext)
- Master of Science in Management of Technology (http://catalog.utsa.edu/graduate/business/informationsystemscybersecurity/#degreeext)
- Doctor of Philosophy in Information Technology (http://catalog.utsa.edu/graduate/business/informationsystemscybersecurity/#degreeext)
- Graduate Certificate in Cloud Computing (http://catalog.utsa.edu/graduate/business/informationsystemscybersecurity/#certificateext)
- Graduate Certificate in Cyber Security (http://catalog.utsa.edu/graduate/business/informationsystemscybersecurity/cloudcomputing_is_certificate)
- Graduate Certificate in Project Management (http://catalog.utsa.edu/graduate/business/informationsystemscybersecurity/#certificateext)
- Graduate Certificate in Technology Entrepreneurship and Management (http://catalog.utsa.edu/graduate/business/informationsystemscybersecurity/#certificateext)

Department of Management (http://catalog.utsa.edu/graduate/business/management/)
- Doctor of Philosophy in Management and Organization Studies (http://catalog.utsa.edu/graduate/business/management/#degreeext)

Department of Management Science and Statistics (http://catalog.utsa.edu/graduate/business/managementsciencestatistics/)
- Master of Science in Statistics and Data Science (http://catalog.utsa.edu/graduate/business/managementsciencestatistics/#degreeext)
- Doctor of Philosophy in Applied Statistics (http://catalog.utsa.edu/graduate/business/managementsciencestatistics/#degreeext)
- Graduate Certificate in Operations and Supply Chain Management (http://catalog.utsa.edu/graduate/business/managementsciencestatistics/#certificateext)

Department of Marketing (http://catalog.utsa.edu/graduate/business/marketing/)
- Doctor of Philosophy in Marketing (http://catalog.utsa.edu/graduate/business/marketing/#degreeext)

- M.B.A. (p. 1)
- M.S. in Business (p. 2)
- M.S. in Data Analytics (p. 3)
- Executive M.B.A. (p. 3)
- Dual M.B.A and Master of Public Health (p. 4)
- Pre-Ph.D. Program (p. 4)

Master of Business Administration Degree
The Master of Business Administration degree is designed to offer the opportunity for intensive education to qualified graduate students and
is available to individuals with undergraduate degrees in the business administration areas, as well as to those with specializations outside the business field.

Students who enter the M.B.A. degree program must demonstrate proficiency with computer programs commonly used in business applications, including, but not limited to, spreadsheets, presentation, and word processing software. Special not-for-credit courses may be offered to address this need.

Program Admission Requirements
For admission to the M.B.A. program, applicants must meet University-wide graduate admission requirements. Applicants are further considered on the basis of demonstrated potential for success in graduate study in business administration as indicated by a combination of prior academic achievement, Graduate Management Admission Test (GMAT) or Graduate Record Exam (GRE) scores, personal statement, résumé, and references. The M.B.A. Program Committee evaluates each applicant individually based on the complete package of submitted materials.

A complete application package will include:

• A completed application form
• Transcripts from all universities attended
• Official Graduate Management Admission Test (GMAT) scores (no more than five years old) (upon review of the M.B.A. Committee, GRE scores (no more than five years old) may be accepted in lieu of the GMAT scores)
• A personal statement
• A current résumé with employment or other experience
• At least two letters of reference

Degree Requirements
The M.B.A. program requires 36 semester credit hours of work.

A. 27 semester credit hours of required master’s level business courses

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBA 5113</td>
<td>Business Foundations</td>
</tr>
<tr>
<td>MBA 5133</td>
<td>Financial Accounting Concepts</td>
</tr>
<tr>
<td>MBA 5213</td>
<td>Management and Behavior in Organizations</td>
</tr>
<tr>
<td>MBA 5233</td>
<td>Accounting Analysis for Decision Making</td>
</tr>
<tr>
<td>MBA 5313</td>
<td>Marketing Management</td>
</tr>
<tr>
<td>MBA 5333</td>
<td>Financial Management</td>
</tr>
<tr>
<td>MBA 5413</td>
<td>Management Science with Data Analytics</td>
</tr>
<tr>
<td>MBA 5513</td>
<td>Managerial Economics</td>
</tr>
<tr>
<td>MBA 5613</td>
<td>Strategic Management and Policy</td>
</tr>
</tbody>
</table>

B. 9 semester credit hours of elective master’s level business courses

Total Credit Hours 36

Flexible or Full-time Status
The general M.B.A. degree allows students to take the program at their own pace, whether on a full-time or a part-time (flexible) basis. In addition, students may switch this status from semester to semester without additional approvals or admissions processes. Samples of flexible and full-time degree plans can be found at the College of Business Graduate website (http://business.utsa.edu/graduate/).

Degree Options
Students seeking the M.B.A. degree may select between two options to complete the required 36 semester credit hours.

Option 1: General M.B.A. Non-Thesis Option
Under Option 1, students are required to complete the 27 semester credit hours listed above and 9 semester credit hours of electives. These electives may be taken either in the College of Business or in areas outside of the College of Business as approved by the Graduate Program Committee.

Option 2: General M.B.A. Thesis Option
Under Option 2, students are required to complete the 27 semester credit hours listed above, 3 semester credit hours of electives as approved by the Graduate Program Committee, and 6 semester credit hours of Master’s Thesis. See the University’s requirements for a thesis in Master’s Degree Regulations.

Master of Science Degree in Business
The Master of Science in Business (M.S.B.) degree is designed to offer business skills and knowledge to qualified students who do not have a business degree. The plan of study features cohort classes to allow students whose previous education has been in nonbusiness fields, such as liberal arts, science and engineering, to obtain graduate level business training as a complement to their previous education. The program, including admission, is supervised by the Graduate Program Committee in M.S.B. General Requirements for completion of the program consist of required business courses.

Program Admission Requirements
For admission to the M.S. in Business program, applicants must meet University-wide graduate admission requirements. Applicants are limited to individuals with nonbusiness backgrounds and or degrees. Applicants will be considered on the basis of demonstrated potential for success in graduate study in business as indicated by a combination of standardized test scores, prior academic achievement, personal statement, résumé (optional), and letters of recommendation.

A complete application package will include:

• A completed application form
• Official Graduate Record Examination (GRE) scores from a recent (no more than five years old) administration of the exam will be accepted in lieu of the GRE scores.
• Transcripts from all universities attended
• A personal statement of academic and personal goals
• At least two letters of reference
• A current résumé with employment or other experience (optional)

Applicants whose undergraduate degree is in business should consider the MBA or a specialized Masters’ degree. Applicants with a B.B.A or other undergraduate or graduate business degree, or significant business experience will not be admitted to this degree program.

Full-time Status
The M.S.B. is a full-time cohort program offered during the daytime.
Degree Requirements

M.S.B. students are required to complete 30 hours of business courses plus 3 credit hours of developmental courses.

A. 30 semester credit hours of required master's level business courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC 5003</td>
<td>Financial Accounting Concepts</td>
</tr>
<tr>
<td>ECO 5003</td>
<td>Economic Theory and Policy</td>
</tr>
<tr>
<td>FIN 5023</td>
<td>Financial Management</td>
</tr>
<tr>
<td>MGT 5043</td>
<td>Management and Behavior in Organizations</td>
</tr>
<tr>
<td>MGT 5093</td>
<td>Leadership</td>
</tr>
<tr>
<td>MGT 5633</td>
<td>Effective Negotiating</td>
</tr>
<tr>
<td>MGT 5903</td>
<td>Strategic Management and Policy</td>
</tr>
<tr>
<td>MOT 5243</td>
<td>Essentials of Project and Program Management</td>
</tr>
<tr>
<td>MKT 5023</td>
<td>Marketing Management</td>
</tr>
<tr>
<td>MS 5003</td>
<td>Quantitative Methods for Business Analysis</td>
</tr>
</tbody>
</table>

B. 3 semester credit hours of developmental courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GBA 6302</td>
<td>Professional Development and Communication</td>
</tr>
<tr>
<td>MGT 6971</td>
<td>Special Problems (Business Speaking)</td>
</tr>
</tbody>
</table>

Total Credit Hours 33

Master of Science Degree in Data Analytics

The Master of Science in Data Analytics (M.S.D.A.) program focuses on data science and big data based business intelligence-oriented analytics algorithms, tools, techniques, and technologies. The plan of study features cohort classes, with students participating in formal internships and practical projects in a wide variety of application areas, including, but not limited to business analytics. The program, including admission, is supervised by the Graduate Program Committee in M.S.D.A. General requirements for completion of the program consist of required business courses.

Program Admission Requirements

For admission to the M.S.D.A. program, applicants must meet University-wide graduate admission requirements. A degree of B.A. or B.S. in statistics, mathematics, engineering, computer science, information systems, information technology, or a closely related field is highly recommended. Applicants will be evaluated for success in the program based on demonstrable academic preparation and/or experience with respect to mathematics, statistics, and information technology. Coursework in calculus, differential equations, stochastic processes, statistics, and data mining are not required, but show foundational mathematical preparation and are preferred in some combination. Information systems/technology courses, computer science courses, and/or professional experience related to databases, networks, distributed and cloud infrastructures, and programming are not required, but show foundational information technology preparation and are preferred in some combination.

Applicants will be considered on the basis of demonstrated potential for success in graduate study in business as indicated by a combination of standardized test scores, prior academic achievement, personal statement, résumé, and letters of recommendation.

The M.S.D.A. Program Committee will evaluate each applicant individually based on the complete package of submitted materials.

A complete application package will include:

- A completed application form
- Official Graduate Record Examination (GRE) or Graduate Management Admission Test (GMAT) scores from a recent (no more than five years old) administration of the examination.
- Transcripts from all universities attended
- A personal statement of academic history and personal goals
- Letters of reference (optional)
- A current résumé with employment or other experience

Day or Evening Status

The M.S.D.A. offers both day and evening programs. Students may not switch status once enrolled. Both programs begin in the Fall semester.

Degree Requirements

M.S.D.A. students are required to complete 24 hours of required courses plus 6 hours of required practicum courses.

A. 24 semester hours of required master's level courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DA 6123</td>
<td>Data-Driven Decision Making and Design</td>
</tr>
<tr>
<td>DA 6223</td>
<td>Data Analytics Tools and Techniques</td>
</tr>
<tr>
<td>DA 6233</td>
<td>Data Analytics Visualization and Techniques</td>
</tr>
<tr>
<td>DA 6813</td>
<td>Data Analytics Applications</td>
</tr>
<tr>
<td>IS 6713</td>
<td>Data Foundations</td>
</tr>
<tr>
<td>IS 6733</td>
<td>Deep Learning on Cloud Platforms</td>
</tr>
<tr>
<td>STA 6443</td>
<td>Statistical Modeling</td>
</tr>
<tr>
<td>STA 6543</td>
<td>Predictive Modeling</td>
</tr>
</tbody>
</table>

B. 6 semester credit hours of required practicum courses

<table>
<thead>
<tr>
<th>Course</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>DA 6823</td>
<td>Data Analytics Practicum I</td>
</tr>
<tr>
<td>DA 6833</td>
<td>Data Analytics Practicum II</td>
</tr>
</tbody>
</table>

Total Credit Hours 30

Executive Master of Business Administration

The Executive Master of Business Administration (E.M.B.A.) is a 43-credit hour version of the Master of Business Administration (M.B.A.) degree program specifically for executives, professionals, and rising leaders who have significant managerial experience. This 43-credit hour, five-semester plan of study features lockstep cohort classes, weekend class scheduling, professional development and coaching, and an emphasis on acquiring advanced skills and knowledge needed to solve the pressing concerns of today's fast-paced economy. The E.M.B.A. is accredited by the AACSB International - The Association to Advance Collegiate Schools of Business - and conforms to its recommended guidelines.

E.M.B.A. Program Admission Requirements

Because of the special focus of the E.M.B.A. program, the application process is separate from and independent of the regular M.B.A. program. Admission decisions are not reciprocal, class size is limited, and admission decisions are made on a rolling basis until all available class positions are filled.

To be considered for admission to the E.M.B.A. program, applicants must:

- Submit a current resume documenting approximately 8 years of work experience with increasing managerial responsibility. Less
developing their business and leadership skills with healthcare specific Health Professionals throughout the program and covers general business courses. The track weaves quantitative, analytical and managerial learning threads a track after the first semester in the program. The Executive Master of Business Administration (E.M.B.A.) program is not guaranteed. is dependent upon successful reapplication. Acceptance in a future for any reason are not eligible to rejoin the same class in a subsequent waivers. In addition, students who leave the program before completion complete all required courses without exception. There will be no course program. The TOEFL is not required for admission into the E.M.B.A, The GMAT or GRE is not required for admission into the E.M.B.A. and approval of the Dean of the Graduate School. Conditional upon recommendation of the E.M.B.A. Programs Committee Submit official transcripts from all prior universities attended Submit two (2) letters of professional reference Submit a personal statement discussing their interest in the E.M.B.A. exceptional accomplishment. experienced applicants will be considered if they can demonstrate exceptional accomplishment. Students choosing the dual degree program must complete the 36 semester credit hours of M.B.A. coursework and the 45 semester credit hours of M.P.H. coursework. However, under this integrated dual-degree program, up to 12 semester credit hours of M.B.A. coursework can be applied to the M.P.H. requirements, and up to 12 semester credit hours of M.P.H. coursework can be applied to the M.B.A. requirements. These shared-credit courses substantially reduce the total time required for students to complete the programs, when compared with taking each of the two degree programs separately. Students choosing the dual degree program must complete the 36 semester credit hours of M.B.A. coursework and the 45 semester credit hours of M.P.H. coursework. However, under this integrated dual-degree program, up to 12 semester credit hours of M.B.A. coursework can be applied to the M.P.H. requirements, and up to 12 semester credit hours of M.P.H. coursework can be applied to the M.B.A. requirements. These shared-credit courses substantially reduce the total time required for students to complete the programs, when compared with taking each of the two degree programs separately. Each student shall be responsible for payment of tuition and fees at each institution at which the student is enrolled.

Required Courses

Dual Master of Business Administration Degree and Master of Public Health Degree Program

This integrated dual degree program is designed to offer the opportunity for qualified graduate students to study both business administration and public health at the graduate level. It will assist students who enter with a wide range of work experience in their quest for advanced leadership and managerial or administrative roles within a variety of healthcare and public health organization types. The Master of Business Administration (M.B.A.) degree is offered through the UTSA College of Business, and the Master of Public Health (M.P.H.) degree is offered through The University of Texas School of Public Health (UTSPH) with courses available at its San Antonio Regional Campus.

Applicants will be admitted to the M.B.A. and M.P.H. degree programs independently, according to the admission schedule and policies of each institution. Applicants must submit all admission materials to each admission office independently and on time. Admission to the integrated dual degree program may occur after a student has already matriculated in the M.B.A., M.P.H., or both degree programs, as long as the student is still within the first-half of each program.

Each student shall be responsible for payment of tuition and fees at each institution at which the student is enrolled.

Pre-Ph.D. Program

The Pre-Ph.D. program will provide students with experience and training in business research necessary to make them competitive candidates for top-rated Ph.D. programs in business. It will cultivate students’ interest in pursuing a doctoral education and will position them to become thought leaders in their respective areas. The program responds to labor market demands suggesting an expanding need for business professors, particularly those from under-represented minority (URM) groups. Since the University of Texas at San Antonio (UTSA) is a Hispanic Serving Institution (HSI), the primary URM group will be Hispanics, but the program is open to all graduate students. The primary audience is master’s students, but doctoral students who join UTSA’s Ph.D. program with undergraduate degrees only can benefit from this program as they complete the requirements to earn the doctoral degree.
Admission Requirements

The Pre-Ph.D. program is open to all UTSA graduate students, including non-degree seeking students, regardless of their college or major. Applicants who are currently enrolled in a graduate degree program at UTSA will be required to apply for admission to UTSA as a special (non-degree seeking) graduate student and to indicate their intent to go through the Pre-Ph.D. course sequence. Students who meet general UTSA admission requirements are eligible for admission to the Pre-Ph.D. program.

Applicants who are not currently enrolled in a graduate degree program at UTSA will be required to apply for admission to UTSA as a special (non-degree seeking) graduate student and to indicate their intent to go through the Pre-Ph.D. course sequence. Students who meet general UTSA admission requirements are eligible for admission to the Pre-Ph.D. program.

Pre-Ph.D. Program Requirements

Below is the three-course suggested sequence for graduate students seeking to become competitive applicants in top business Ph.D. programs.

<table>
<thead>
<tr>
<th>Course</th>
<th>Title</th>
<th>Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>GBA 6013</td>
<td>Graduate Academic Research and Programming</td>
<td>3</td>
</tr>
<tr>
<td>GBA 6023</td>
<td>Research Conceptualization, Development, and Practice</td>
<td>3</td>
</tr>
<tr>
<td>GBA 6033</td>
<td>Research Conceptualization, Development, and Practice</td>
<td>3</td>
</tr>
</tbody>
</table>

Graduate Certificate in Intelligence Studies

The Graduate Certificate in Intelligence Studies is a 12-semester-credit-hour program designed to prepare individuals from a broad range of academic disciplines for a career in the Intelligence Community (https://www.intelligence.gov/). Individuals with business, foreign language, social science, computer science, criminal science, engineering or statistics backgrounds will benefit from this professional certificate. Individuals completing this certificate will gain a practical and hands-on knowledge of methods in intelligence collection, intelligence analysis, and reporting and briefing for the intelligence community. See the College of Business Critical Technology Studies Program (http://www.business.utsa.edu/ctsp/) website for more information.

Admission Requirements

The certificate is open to all UTSA graduate students, including non-degree seeking students, regardless of their college or major. Applicants who are currently enrolled in a graduate degree program at UTSA have already met the University requirements for admission. Current students should contact the Dr. Hamid Beladi at hamid.beladi@utsa.edu or telephone at (210) 458-7038.

Applicants who are not currently enrolled in a graduate degree program at UTSA will be required to apply for admission to UTSA as a special (non-degree-seeking) graduate student and to indicate their intent to seek admission into a certificate program. Students who meet general UTSA admission requirements are eligible for admission to this certificate program.

Certificate Requirements

To earn the Graduate Certificate in Intelligence Studies, students must complete 12 semester credit hours as follows:

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>NS 6003</td>
<td>The Role of U.S. Intelligence in National Security</td>
<td>3</td>
</tr>
<tr>
<td>NS 6223</td>
<td>Analytical Writing, Reporting and Briefing for the Intelligence Community</td>
<td>3</td>
</tr>
<tr>
<td>NS 6503</td>
<td>Intelligence Reasoning Analysis</td>
<td>3</td>
</tr>
<tr>
<td>NS 6523</td>
<td>Methods in Intelligence Collection</td>
<td>3</td>
</tr>
</tbody>
</table>

Total Credit Hours: 12

Business of Health (BOH) Courses

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credit Hours</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOH 6123</td>
<td>Healthcare Strategic Management. (3-0) 3 Credit Hours.</td>
<td>3</td>
</tr>
<tr>
<td>BOH 6133</td>
<td>Organizational and Managerial Issues in Healthcare Delivery. (3-0) 3 Credit Hours.</td>
<td>3</td>
</tr>
<tr>
<td>BOH 6763</td>
<td>Legal and Tax Strategies for Healthcare Organizations. (3-0) 3 Credit Hours.</td>
<td>3</td>
</tr>
<tr>
<td>BOH 6773</td>
<td>Seminar in Medicare Regulation. (3-0) 3 Credit Hours.</td>
<td>3</td>
</tr>
</tbody>
</table>

Tuition: $387.
BOH 6783. Accounting for Healthcare Organizations. (3-0) 3 Credit Hours.
Prerequisite: ACC 5003, an equivalent, or consent of instructor. A seminar on financial and managerial accounting in for-profit and nonprofit healthcare organizations. Accounting issues related to strategic decision-making in health service production, financing, and investment will be emphasized throughout the course. Topics include the healthcare accounting and financial environment, revenue and expense recognition, balance sheet valuations, ratio analysis, cost accounting, performance measurement, variance analysis, physician compensation and practice valuation, tax-exemption issues, mergers, and disclosure requirements. Special attention is given to the financial implications of third-party payment systems and accounting analyses for physician practices. Includes practical experience using actual healthcare case materials. 
(Same as ACC 6783. Credit cannot be earned for both ACC 6783 and BOH 6783.) Differential Tuition: $387.

Data Analytics (DA) Courses
DA 6213. Data-Driven Decision Making and Design. (3-0) 3 Credit Hours.
This course introduces students to the process of making organizational decisions using data-driven techniques. Specifically, this course emphasizes question formulation, hypothesis development, data analysis, model building, and model testing using business case studies. The first component of this course focuses on data-driven decision making using linear and logistic regression analysis. The second component of this course focuses on time series analysis using regression, Exponential Smoothing, ARIMA, ARIMAX, and Unobserved Component modeling-based approaches. The third component of this course focuses on survival analysis using non-parametric, semi-parametric, and parametric methods. Appropriate statistical software will be used throughout this course to demonstrate various methods. Differential tuition: $387.

DA 6223. Data Analytics Tools and Techniques. (3-0) 3 Credit Hours.
Students will be provided the opportunity to gain education and experience with SAS Enterprise Guide and SAS Enterprise Miner, a leading commercial tool for analytical industry. Students will become familiar with data preparation process, including data imports, data merge, data cleaning, data transformation, conditional processing, data summary, and data visualization techniques using SAS software. Statistical modeling and machine learning are also introduced in SAS Enterprise Guide and Enterprise Miner. Students will not become scientific programmers from this course, nor will they learn the formalisms of programming per se; rather, they will be provided the opportunity to learn and experience a complete process of data analytics. Differential Tuition: $387.

DA 6233. Data Analytics Visualization and Communication. (3-0) 3 Credit Hours.
Since the purpose data analytics is to inform and facilitate better data-driven decisions, and transform data to information and knowledge, the ability to effectively communicate data aggregations, summarizations, and analytic findings to decision makers is very important. The ability to communicate highly complex analyses and scientific findings to a non-technical audience is challenging. This course will educate students on common mistakes and success factors in technical communication, and give them experience communicating findings orally and in writing. The course will also focus heavily on data analytics visualization approaches and tools. Students will be provided the opportunity to learn common methods for data visualization for a wide variety of data types and data analytics applications. Differential Tuition: $387.

DA 6813. Data Analytics Applications. (3-0) 3 Credit Hours.
Students will be presented a big picture understanding of data analytics, including its purpose, common benefits and challenges, important analytic processes, and what is needed to perform data analytics, such as skills, tools, technology, etc. Students will be introduced to a wide variety of data analytics applications in a wide variety of fields, which may include some of the topics from fields such as information technology, cyber security, bioinformatics, biomedical/health, insurance and risk, finance, economics, accounting, business intelligence, crime and fraud detection, marketing and customer analytics, energy and environment, manufacturing and operations, and logistics and supply chain. Differential tuition: $387.

DA 6821. Data Analytics Practicum I. (1-0) 1 Credit Hour.
This course presents students with practical knowledge, skills, and experience needed to conduct real-world, high-quality data analytics in an application area of interest. Students will meet formally with their peers and the instructor for the purpose of facilitating the practicum experience. In the first 1 credit semester of this course students will learn how to identify the proper statistical technique to apply to a problem, complete a set of modules that review basic statistical fundamentals and have the opportunity to gain a first experience at data analysis using small time series data sets. During the second 2 credit semester of the practicum, students will engage in a project that incorporates the following steps of the data analytics process: problem defining, question formulation, hypothesis development, preliminary analytics, analytical design, data acquisition, data preparation and pre-processing, and initial data analysis as well as develop some fundamental coding skills using a large, real world data set. In addition, they will acquire training in analytical and statistical techniques including introduction to social network analysis as well as an introduction to a number of other statistical methods designed to encourage the student to explore and learn more advanced techniques. may be repeated for credit. Differential Tuition: $129.

DA 6822. Data Analytics Practicum I. (2-0) 2 Credit Hours.
This course presents students with practical knowledge, skills, and experience needed to conduct real-world, high-quality data analytics in an application area of interest. Students will meet formally with their peers and the instructor for the purpose of facilitating the practicum experience. In the first 1 credit semester of this course students will learn how to identify the proper statistical technique to apply to a problem, complete a set of modules that review basic statistical fundamentals and have the opportunity to gain a first experience at data analysis using small time series data sets. During the second 2 credit semester of the practicum, students will engage in a project that incorporates the following steps of the data analytics process: problem defining, question formulation, hypothesis development, preliminary analytics, analytical design, data acquisition, data preparation and pre-processing, and initial data analysis as well as develop some fundamental coding skills using a large, real world data set. In addition, they will acquire training in analytical and statistical techniques including introduction to social network analysis as well as an introduction to a number of other statistical methods designed to encourage the student to explore and learn more advanced techniques. Differential Tuition: $258.
DA 6823. Data Analytics Practicum I. (3-0) 3 Credit Hours.
Prerequisites: DA 6213, DA 6813, and STA 6443. This course presents students with practical knowledge, skills, and experience needed to conduct real-world, high-quality data analytics in an application area of interest. Students will meet formally with their peers and the instructor for the purpose of facilitating the practicum experience. In the first 1 credit semester of this course students will learn how to identify the proper statistical technique to apply to a problem, complete a set of modules that review basic statistical fundamentals and have the opportunity to gain a first experience at data analysis using small time series data sets. During the second 2 credit semester of the practicum, students will engage in a project that incorporates the following steps of the data analytics process: problem defining, question formulation, hypothesis development, preliminary analytics, analytical design, data acquisition, data preparation and pre-processing, and initial data analysis as well as develop some fundamental coding skills using a large, real world data set. In addition, they will acquire training in analytical and statistical techniques including introduction to social network analysis as well as an introduction to a number of other statistical methods designed to encourage the student to explore and learn more advanced techniques. Differential Tuition: $387.

DA 6833. Data Analytics Practicum II. (3-0) 3 Credit Hours.
Prerequisite: DA 6823. This course continues the practicum experience in the same manner as Data Analytics Practicum I. Students will continue their major data analytics project, focusing on the analysis and presentation of results portion of the process. The next steps will be detailed data analysis, conclusion drawing, report preparation and refinement, presentation preparation and final presentation. The practicum will culminate in a formal, completed report to the supporting organization, as well as to data analytics peers and professors. Students who earn a grade of “B” (3.0) or better in this course will satisfy the comprehensive examination requirement. A student who receives a grade of “B,” “C+,” or “C” may still satisfy this requirement by successfully passing a comprehensive examination as set out in this catalog. Differential Tuition: $387.

General Business Administration (GBA) Courses

GBA 6013. Graduate Academic Research and Programming. (3-0) 3 Credit Hours.
Prerequisite: Consent of instructor. The course provides an introduction to research in business administration for graduate students who are interested in entering the doctoral programs but do not have prior academic experience in this area. It also explores the nature of doctoral programs and careers in academe. The curriculum examines the nature and scope of research conducted in a variety of business disciplines and involves a broad systematic review of business research literature. Finally, this course presents the foundational work and an array of methods and approaches that students can take to prepare for research projects of interest. Curricula also include development of meaningful research topics. Differential Tuition: $387.

GBA 6023. Research Conceptualization, Development, and Practice. (3-0) 3 Credit Hours.
Prerequisites: GBA 6013 and (MS 3043 or MBA 5413 or equivalent), and consent of instructor. This course is the first in a two-part sequence and provides an overview of common research methodologies and their applications in context to the student's degree program. Foundational concepts include examination and application of theoretical frameworks, critical analysis of scholarly literature and collection / processing of data through a theoretical lens. Students also explore quantitative, qualitative and mixed research methods and the analytical elements of an effective research scheme. Differential Tuition $387.

GBA 6033. Research Conceptualization, Development, and Practice. (3-0) 3 Credit Hours.
Prerequisite: GBA 6023 and consent of instructor. This course is the second in a two-part sequence and intends to give students hands-on research experience in a pragmatic and professional manner. This course continues with the array of quantitative research skills introduced in GBA 6023 and trains students to apply an appropriate research paradigm and conduct scientific business analysis. The analysis of data, data visualization and communication of outcomes are emphasized. Topics related to strategic fit and selection of research outlets are incorporated. Differential Tuition $387.

GBA 6302. Professional Development and Communication. (2-0) 2 Credit Hours.
Prerequisite: Consent of instructor. This course is designed to enhance the student's ability in and experience with building networking skills, verbal and written communication skills, business etiquette, and learning how to increase their professional human capital. Students will learn how to build a personal career portfolio (an approved resume, a LinkedIn profile, etc.), how to market themselves, how to prepare for internship and job placement interviews, how to utilize professional networking, and how to work effectively and professionally in collaborative settings. The goal is to make students more marketable and valuable professionals to the global economy. Written assignments and attendance at course-related seminars are required. Differential Tuition: $258.

GBA 6883. Global Business Immersion. (0-0) 3 Credit Hours.
Prerequisite: 6 College of Business semester credit hours and official admission into the Business Immersion Program. An advanced field-trip course designed to provide intensive exposure to the business practices of the locations visited. The pre-departure activities enhance prior knowledge of the local business climate and culture. The in-country activities include visits to local companies and workshops hosted by local professors. The post-immersion components engage students in reflection opportunities and applied project experiences. This course relies heavily on experiential components. Attendance to all official course events is required. This course may be repeated for credit. Differential Tuition: $387.

GBA 6941. Graduate Internship. (1-0) 1 Credit Hour.
Prerequisites: Graduate standing, 15 semester credit hours of graduate work, and consent of instructor. Internship must be approved in advance by the Internship Coordinator and the student's Graduate Advisor of Record. Supervised full- or part-time, off-campus work experience and training in business operations and/or management. Individual conferences and written reports required. Differential Tuition: $129.

GBA 6973. Special Topics in General Business Administration. (3-0) 3 Credit Hours.
Prerequisite: Consent of instructor. An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Topics courses may be repeated for credit when topics vary, but no more than 6 hours, regardless of discipline, will apply to the degree. Differential Tuition: $258.

GBA 6973. Special Topics in General Business Administration. (3-0) 3 Credit Hours.
Prerequisite: Consent of instructor. An organized course offering the opportunity for specialized study not normally or not often available as part of the regular course offerings. Special Topics courses may be repeated for credit when topics vary, but no more than 6 hours, regardless of discipline, will apply to the degree. Differential Tuition: $387.
GBA 7013. Research Methods I. (3-0) 3 Credit Hours.
Prerequisite: Consent of instructor. An introduction to the research process. The course examines the scientific method, issues in the philosophy of science, ethical issues in research, and an introduction to basic experimental and quasi-experimental design principles and threats to validity. The course also examines the elements of scientific paper writing. Differential Tuition: $387.

GBA 7023. Research Methods II. (3-0) 3 Credit Hours.
Prerequisite: Consent of instructor. A survey of contemporary research design and data collection methods, including archival data, surveys, interviews, and qualitative research methods. Differential Tuition: $387.

GBA 7103. Doctoral Teaching Seminar. (3-0) 3 Credit Hours.
A critical examination of teaching philosophies and pedagogical styles. Topics include course construction, content selection, and student learning. Differential Tuition: $387.

Master of Business Administration (MBA) Courses

MBA 5113. Business Foundations. (3-0) 3 Credit Hours.
A first semester MBA degree course designed to provide students with a conceptual foundation for business analysis and decision-making. Topics will include overview of business organizations, industry analysis, and time value of money. Differential Tuition: $387.

MBA 5133. Financial Accounting Concepts. (3-0) 3 Credit Hours.
An intensive study of accounting as a tool to communicate financial information for planning, analyzing, and controlling business enterprises directed toward decision-making. (Same as ACC 5003. Credit cannot be earned for both ACC 5003 and MBA 5133.) Differential Tuition: $387.

MBA 5213. Management and Behavior in Organizations. (3-0) 3 Credit Hours.
Prerequisites: Completion of or concurrent enrollment in MBA 5113 and MBA 5133. The course focuses on factors affecting individual and group behavior in organizations. It includes organizational behavior topics such as motivation, perception, job attitudes, job design, leadership, and individual differences. It also includes organizational theory topics such as organizational structure, design, culture, and environmental influences. (Same as MGT 5043. Credit cannot be earned for both MBA 5213 and MGT 5043.) Differential Tuition: $387.

MBA 5233. Accounting Analysis for Decision Making. (3-0) 3 Credit Hours.
Prerequisites: MBA 5113 and MBA 5133. The study of accounting and its uses by management in the decision-making process. (Same as ACC 5023. Credit cannot be earned for both ACC 5023 and MBA 5233.) Differential Tuition: $387.

MBA 5313. Marketing Management. (3-0) 3 Credit Hours.
Prerequisites: Completion of or concurrent enrollment in MBA 5113 and MBA 5133. An analysis of marketing management processes within organizations. Focus is on the use of strategic planning and market analysis to design marketing programs in competitive environments. (Same as MKT 5023. Credit cannot be earned for both MBA 5313 and MKT 5023.) Differential Tuition: $387.

MBA 5333. Financial Management. (3-0) 3 Credit Hours.
Prerequisites: MBA 5113 and MBA 5133. The study of concepts related to the financial management of the firm. Topics include asset and liability management, capital investment analysis and valuation, risk and uncertainty, sources and costs of financial alternatives, corporate financial policy, and other corporate financial management topics. (Same as FIN 5023. Credit cannot be earned for both FIN 5023 and MBA 5333.) Differential Tuition: $387.

MBA 5413. Management Science with Data Analytics. (3-0) 3 Credit Hours.
Prerequisites: MBA 5113 and MBA 5133. This course provides students with knowledge and applications of quantitative methods and data analytic tools commonly used in the fields of management science and operations management. The focus is to demonstrate how to solve managerial and technical problems encountered in various functional areas in business. Topics include, but not limited to, descriptive analytics, probability distributions, sampling distributions, confidence interval estimation, hypothesis testing, chi-squared test, analysis of variance, linear regression, forecasting, linear programming and optimization, project scheduling, and simulation. Computer software and spreadsheet models are adopted in the instructions. (Same as MS 5023. Credit cannot be earned for both MBA 5413 and MS 5023.) Differential Tuition: $387.

MBA 5513. Managerial Economics. (3-0) 3 Credit Hours.
Prerequisites: MBA 5113 and MBA 5133. Application of price theory to economic decisions of the firm. An applications-oriented approach emphasizing demand, production, and profit maximizing conditions, and their implications for output and pricing strategies under various market structures and types of organization. (Same as ECO 5023. Credit cannot be earned for both ECO 5023 and MBA 5513.) Differential Tuition: $387.

MBA 5613. Strategic Management and Policy. (3-0) 3 Credit Hours.
Prerequisite: Completion of all other MBA Core courses or approval of instructor, Department Chair, and Associate Dean of the Office of Graduate Studies. A course intended to integrate material taken in the M.B.A. program, as well as to broaden the horizons of the student beyond the focus on the firm. The macroeconomic aspects of the economy and contemporary problems and trends of business are covered. Students who earn a grade of "B" (3.0) or better in this course will satisfy the comprehensive examination requirement. A student who receives a grade of "B-" or "C+" or "C" may still satisfy this requirement by successfully passing a comprehensive examination as set out in this catalog. (Same as MGT 5903. Credit cannot be earned for both MBA 5613 and MGT 5903.) Differential Tuition: $387.