

Katz certificates provide students with the opportunity to explore a cross-disciplinary focus in critical business areas. Featuring a combination of required and elective courses, Katz certificates complement a student's primary concentration of area studies; illustrate the importance of collaboration across business areas; and provide experience-based learning opportunities for real-world experience.

CERTIFICATE REQUIREMENTS

Katz certificates adhere to the following requirements:

1. 10.5 total credits chosen from the approved list of courses
2. Completion of cited required courses (if applicable)
3. A grades of 'B' or better earned for **each** certificate course*
4. A minimum 'B+' average (3.250 QPA) across all certificate courses

*If a grade of 'B-' or below is earned in a *required course* for a given certificate, the course in question cannot be applied toward said certificate (requirement #3). The student may elect to retake the course in order to secure a grade of 'B' or better and satisfy requirement #3. If a grade of 'B-' or below is earned in an eligible *elective certificate course*, the student may elect to retake said course or attempt another approved elective course to apply toward the certificate.

DECLARATION

Please declare all certificates that you intend to pursue, up to two (2) certificates, by checking the box(es) in the 'Certificate Declaration' section below. For scheduling purposes and general counsel, please contact your advisor if/when you consider pursuing more than two certificates.

COMPLETION

Upon graduation and verification of certificate requirements, students will be issued an endorsed certificate of completion in recognition of the accomplishment. If desired, students may elect to update personal records (e.g., resume) to reflect the completion of a certificate if/when certificate requirements are satisfied prior to graduation.

ENDORSEMENT

Endorsement of this document confirms that you, the Student, have read and understand the previously cited requirements for Katz certificates offered by the Joseph M. Katz Graduate School of Business at the University of Pittsburgh. In addition, it is acknowledged that students are ultimately responsible for tracking certificate progress; acquiring special permissions/approval when necessary; and contacting an advisor with questions and concerns.

Last Name

First Name

Student Signature (hand-written or digital - REQUIRED)

Date

Certificate Declaration

I have read the certificate-specific requirements detailed within this document (below) and intend to pursue to the following certificate(s):

- ☐ Business Analytics
- ☐ Corporate Financial Management
- ☐ Corporate Valuation
- ☐ Digital Marketing
- ☐ Global Management
- ☐ Global Supply Chain Management
- ☐ Investments and Trading
- ☐ Organizational Leadership
- ☐ Project Management
- ☐ Technology, Innovation, and Entrepreneurship

Business Analytics

Faculty advisor: Jerry May

<http://business.pitt.edu/katz/faculty/may.php>

Companies around the world are incorporating data scientists into the workforce. There is an unprecedented demand for graduates with strong business analytical skills, ranging from Consulting, Retail, Financial Services, Marketing, Advertising agencies, Healthcare, to Technology. Business Analytics specialists can support businesses' need for new data, dashboards and reporting; uncover business insight; and help businesses become agile.

The *Business Analytics Certificate* will provide our students with quantitative skills to collect and evaluate data and then apply qualitative skills to communicate the findings. Through the program they will learn and apply skills in:

- Data Acquisition: acquiring, transforming, cleaning, and integrating data from internal and external sources
- Exploring, Predicting, and Optimizing: converting data into a powerful and predictive strategic asset to make better decisions and drive better results
- Communicating: communicate findings and implement recommendations

	Course	Credits	Term(s) likely to be offered	<input checked="" type="checkbox"/>
REQUIRED COURSES: Three (3) courses totaling 6.0 credits				
	BQOM 2512-Advanced Decision Technologies	1.5	Spring	
	BQOM 2578-Data Mining	3.0	Fall	
	BSEO 2525-Competitive Intelligence	1.5	Spring	
ELIGIBLE ELECTIVE COURSES: Any combination of 4.5 credits				
	BMKT 2551-Digital and Social Media Analysis	1.5	Spring	
	BMKT 2544-Shopper Marketing	3.0	Spring	
	BQOM 2017-Simulation	1.5	variable	
	BQOM 2523-Process Engineering	1.5	Fall; Summer	
	BQOM 2537-Forecasting	1.5	Fall; Spring; Summer	
	BQOM 2511-Revenue Management and Pricing Analysis	1.5	Spring	
TOTAL CERTIFICATE CREDITS: 10.5				

Corporate Financial Management

Faculty advisor: Dave Denis

<http://www.business.pitt.edu/katz/faculty/denis-david.php>

The *Corporate Financial Management Certificate* builds your understanding of the interactions between a firm's investment decisions and its business and operational strategies. Students receive a foundation in corporate financial management by developing their skill sets in corporate finance, short-term financing, and international financial reporting and analysis. Students then have the opportunity to pursue electives in such areas as valuation, acquisitions of privately held companies, financial modeling, international finance, and creating value through restructuring.

Any Katz student is eligible to pursue a *Corporate Financial Management Certificate*. For the program's experience-based learning requirement, students complete the Project Course in Finance. In the course, students work on a team to assist a company on a corporate financial management issue. The certificate prepares students for managerial positions in corporate finance, banking and financial institutions, investment management, and consulting.

	Course	Credits	Term(s) likely to be offered	<input checked="" type="checkbox"/>
REQUIRED COURSES: Two (2) courses totaling 4.5 credits				
	BFIN 2015-Short Term Financing	1.5	Spring; Summer	
	BFIN 2036-Corporate Finance	3.0	Spring	
ELIGIBLE ELECTIVE COURSES: Any combination of 6.0 credits				
	BFIN 2030-Valuation 1	1.5	Spring	
	BFIN 2031-Creating Value Through Restructuring	1.5	Fall	
	BFIN 2042-Acquisitions of Privately Held Companies	1.5	Spring	
	BFIN 2043-International Financial Management	3.0	Fall; Spring	
	BFIN 2145-Financial Modeling	3.0	Fall	
TOTAL CERTIFICATE CREDITS: 10.5				

Corporate Valuation

Faculty advisor: Ken Lehn

<http://www.business.pitt.edu/katz/faculty/lehn.php>

The Katz *Corporate Valuation Certificate* enhances your knowledge of valuation in a global context. Students develop the ability to read and understand international financial reporting statements, gaining the requisite analytical and quantitative skills. The area is a critical need as many corporations have significant international operations and are increasing their global presence in emerging markets.

Any Katz student is eligible to pursue a *Corporate Valuation Certificate*. For the program's experience-based learning requirement, students complete the Project Course in Finance. In the course, students work on a team to assist a company in a corporate valuation project. The course prepares students for managerial positions in corporate finance, banking and financial institutions, investment management, and consulting.

	Course	Credits	Term(s) likely to be offered	<input checked="" type="checkbox"/>
REQUIRED COURSES: Two (2) courses totaling 3.0 credits				
	BFIN 2030-Valuation 1	1.5	Spring	
	BFIN 2130-Valuation 2	1.5	Spring	
ELIGIBLE ELECTIVE COURSES: Any combination of 7.5 credits				
	BFIN 2031-Creating Value Through Restructuring	1.5	Fall	
	BFIN 2036-Corporate Finance	3.0	Spring	
	BFIN 2042-Acquisitions of Privately Held Companies	1.5	Spring	
	BFIN 2145-Financial Modeling	3.0	Fall	
TOTAL CERTIFICATE CREDITS: 10.5				

Digital Marketing

Faculty advisor: Andrew Stephen

<http://www.business.pitt.edu/katz/faculty/stephen.php>

Digital marketing, which includes internet advertising and marketing, mobile advertising and social networking, is increasing in importance. Internet advertising is projected to account for 15% of global advertising spending in 2012, and is also among the fastest growing media today. Marketers have recognized the potential inherent in search advertising and mobile advertising to create highly interactive relationships with their customers.

The Katz *Digital Marketing Certificate* is intended to equip students with tools and techniques in digital marketing that will allow them to differentiate themselves in the job market and enable them to compete effectively.

	Course	Credits	Term(s) <i>likely</i> to be offered	<input checked="" type="checkbox"/>
REQUIRED COURSES: Three (3) to four (4) courses totaling 7.5 credits				
	BMKT 2544-Shopper Marketing	3.0	Spring	
	BMKT 2551-Digital and Social Media Analytics	1.5	Spring	
	*EITHER BMKT 2553-Social Media Strategy (1.5 credits, AY 2014-15) plus additional 1.5-credit marketing elective course of student's choice	3.0	Spring	
	OR BMKT 2515-Marketing and Social Media Strategy (3 credits, AY 2015-16)		Spring	
	<u>*SPECIAL CONSIDERATIONS</u> <i>Students who intend to graduate by December 2015, and who have not completed BMKT 2515, should take BMKT 2553 and an additional marketing elective course of choice. Those who intend to graduate by April 2016 and thereafter should plan to complete BMKT 2515.</i>			
ELIGIBLE ELECTIVE COURSES: 3 credits				
	BMIS 2678-Electronic Commerce	3.0	Fall	
	BQOM 2578-Data Mining	3.0	Fall	
TOTAL CERTIFICATE CREDITS: 10.5				

Global Management

Faculty advisor: Ravi Madhavan, <http://www.business.pitt.edu/katz/faculty/madhavan.php>

Regardless of functional orientation, Katz MBAs are likely to be employed at global firms or move into international assignments at some point in their careers. The Global Management Certificate builds your cross-cultural competencies, knowledge of global markets, and skills for operating in a global environment as demand continues to grow for MBAs in Russia, Latin America, and Asian Pacific companies.

The *Global Management Certificate* features an experience-based learning component in which you will travel abroad to work on a business project. The majority of the coursework is interdisciplinary in nature, as you have the option of studying accounting and finance, marketing and supply chain management, and strategy and human resources in a global context. The certificate also offers electives in which a specific BRIC country will be explored, in terms of its background, current affairs, and developments in business and technology.

A foreign language requirement is not part of the certificate program. However, we encourage competence in two or more languages because it improves your ability to secure international employment.

	Course	Credits	Term(s) likely to be offered	<input checked="" type="checkbox"/>
REQUIRED COURSE SELECTION: A minimum of 3.0 credits. Additional coursework surpassing 3.0 credits within this set of course options is permissible.				
	BECN 2019-Economics for International Business	3.0	Fall; Spring	
	BECN 2509-Global Macroeconomics 1	1.5	Fall; Spring	
	BECN 2510-Global Macroeconomics 2	1.5	Fall; Spring	
	BOAH 2527-Cross-Cultural Management	1.5	Spring	
REQUIRED COURSE SELECTION: A minimum of 3.0 credits. Additional coursework surpassing 3.0 credits within this set of course options is permissible.				
	BIND 2024-Consulting Field Project (international travel required)	3.0	Fall; Spring	
	BIND 270X-Global Research Practicum	3.0	Spring	
	<u>SPECIAL CONSIDERATIONS</u> A short-term study abroad component with an experiential component will also be considered with faculty approval.			
ELIGIBLE ELECTIVE COURSES: Any combination of credits necessary to meet minimum requirements for certificate (10.5)				
	BACC 2253-International Accounting	3.0	Fall	
	BACC 2466-Risk Management and Compliance Issues	1.5	Fall; Spring	
	BFIN 2043-International Financial Management	3.0	Fall; Spring	
	BIND 2554-Entering Foreign Markets	1.5	Summer	
	BIND 2XXX-India Today, Brazil Today, China Today, or Russia Today	1.0	variable	
	BMKT 2033-International Marketing	1.5	Spring	
	BOAH 2456-Managing Offshore Outsourcing	1.5	Spring	
	BQOM 2533-Global Supply Chain Management	3.0	Fall; Spring	
	BQOM 2534-Strategic Procurement and Sourcing Management	1.5	Spring	
	BSEO 2506-Competing in Emerging Economics	1.5	variable	
	BSEO 2511-Management of Strategic Alliances 1	1.5	Spring	
	BSPP 2328-The Business of Humanity: Strategic Management in the Era of Globalization, Innovation, and Shared Value	3.0	variable	
TOTAL CERTIFICATE CREDITS: 10.5				

Global Supply Chain Management

Faculty advisor: James Kimpel

<http://www.business.pitt.edu/katz/faculty/kimpel.php>

The Katz *Global Supply Chain Management Certificate* prepares students to secure positions as managers or directors of corporate global supply chains. Position areas include supply chain management, sourcing and procurement, supplier relationship management, or supplier diversity management. Global supply chain management encompasses not only the design and planning of supply chain activities, but also the execution, control, and monitoring activities that help companies to build a competitive infrastructure and create net value.

As part of the certificate, students engage in experience-based learning through an applied project, specializing in either supplier diversity or supply chain management. Students may also develop additional depth in supplier diversity by completing an independent project with Katz's regional corporate partners.

	Course	Credits	Term(s) likely to be offered	<input checked="" type="checkbox"/>
REQUIRED COURSES: Four (4) courses				
	BQOM 2533-Global Supply Chain Management	3.0	Fall; Spring	
	BQOM 2534-Strategic Procurement and Sourcing Management	1.5	Spring	
	*EITHER BMIS 2074-Strategic Information Technology in Global Supply Chains	1.5	Fall	
	OR BMIS 2501 Enterprise Systems and Integrated Business Processes (SAP TERP10 Certification)	3.0	Summer	
	**BQOM 2700/BOAH 2700-Project Course in Supply Chain Management	1.5	Spring	
	OR BQOM 2139-Six Sigma Theory and Practice (see considerations note)	3.0	Fall; Spring	
	OR BIND 2024-Consulting Field Project (see considerations note)	3.0	Fall; Spring	
	<u>*SPECIAL CONSIDERATIONS</u> Only one course within the preceding sets of offerings can be applied toward the certificate.			
	<u>**SPECIAL CONSIDERATIONS</u> The BQOM 2139-Six Sigma Theory and Practice or BIND 2024-Consulting Field Project substitution must concern a SCM-related project. Approval in writing from certificate faculty advisor must be obtained.			
	ELIGIBLE ELECTIVE COURSES: Any combination of credits necessary to meet minimum requirements for certificate (10.5)			
	BACC/BQOM 2549-Strategic Cost Analysis	1.5	Fall; Spring	
	BIND 2526-Business Process Redesign	1.5	Spring	
	BMIS 2591-E-Business Strategy	1.5	variable	
	BMKT 2533-Business-to-Business Marketing	1.5	Fall; Spring	
	BOAH 2527-Cross Cultural Management	1.5	Spring	
	BOAH 2532-Negotiations, Teamwork, and Change	1.5	Fall; Spring; Summer	
	BQOM 2139-Six Sigma Theory and Practice (if not taken as a required certificate course option)	3.0	Fall; Spring	
	BSEO 2511-Management of Strategic Alliances 1	1.5	Spring	
TOTAL CERTIFICATE CREDITS: 10.5				

Investments and Trading

Faculty advisor: Akin Sayrak

<http://www.business.pitt.edu/katz/node/996>

The *Investments and Trading Certificate* builds your background in investments and capital markets, trading, fixed income, and forecasting. Major topics include discounted cash flow valuation, risk-return tradeoffs, international diversification, asset return calculations, portfolio theory, index models, and investment performance analysis. Students spend significant time in our Financial Analysis Laboratory, a 3,000-square-foot facility equipped with Bloomberg terminals and tracking and simulation software. Furthermore, students have the option of taking the Portfolio Practicum, an elective in which they serve on a portfolio management team and engage in trading activities.

Any Katz student is eligible for the *Investments and Trading Certificate*. Katz students who pursue the certificate enhance their preparation for the CFA® exams. Katz is a CFA Program Partner, a designation meaning that our finance curriculum covers at least 70 percent of the CFA® program. Furthermore, Visiting Assistant Professor of Business Administration Manoharlal Sukhwani leads the Pittsburgh chapter of the CFA Institute.

	Course	Credits	Term(s) likely to be offered	<input checked="" type="checkbox"/>
REQUIRED COURSES: Four (4) courses totaling 7.5 credits				
	BFIN 2039-Investment Management and Capital Markets	3.0	Fall; Spring	
	BFIN 2068-Markets and Trading	1.5	Spring	
	BFIN 2069-Fixed Income Securities	1.5	Spring	
	BQOM 2537-Forecasting	1.5	Fall; Spring	
ELIGIBLE ELECTIVE COURSES: Any combination of 3.0 credits				
	BFIN 2043-International Financial Management	3.0	Fall; Spring	
	BFIN 2051-Introduction to Derivatives	1.5	Spring	
	BFIN 2056-Derivatives: Applications to Valuation	1.5	Spring	
	BFIN 2145-Financial Modeling	3.0	Fall	
	BFIN 2555-Portfolio Practicum (2-semester course)	3.0	Fall; Spring	
TOTAL CERTIFICATE CREDITS: 10.5				

Organizational Leadership

Faculty advisor: Brett Crawford

<http://www.business.pitt.edu/katz/faculty/crawford.php>

Leadership is a common denominator for every company and organization. The Katz *Organizational Leadership Certificate* strengthens your ability to create an environment that fosters creativity and innovation, increases productivity through efficient systems, and bolsters morale by helping employees grow professionally.

Our certificate enables you to understand the complexities of leadership within the broad context of business in society. The intense experience emphasizes teamwork and contains an experience-based learning component in which you will complete a project course for an external client. Students who earn an Organizational Leadership Certificate develop their managerial and interpersonal skills. They enhance their ability to set strategic objectives, manage cross-cultural teams, resolve workplace conflicts, and pursue strategic alliances.

	Course	Credits	Term(s) <i>likely</i> to be offered	<input checked="" type="checkbox"/>
REQUIRED COURSE SELECTION: Any combination of 3.0 credits. <i>Additional coursework surpassing 3.0 credits within this set of course options is not applicable without the written consent of the faculty advisor.</i>				
	BIND 2024-Consulting Field Project (<i>requires prior faculty approval with documentation of a significant leadership role in the course project</i>)	3.0	Fall; Spring	
	BOAH 2551-Project Course in Organizational Leadership 1	1.5	Spring	
	BOAH 2552-Project Course in Organizational Leadership 2	1.5	Spring	
ELIGIBLE ELECTIVE COURSES: Any combination of 7.5 credits				
	BIND 2203-Organizational Transformation	1.5	variable	
	BOAH 2527-Cross-Cultural Management	1.5	Spring	
	BOAH 2532-Negotiations, Teamwork, and Change	1.5	Fall; Spring; Summer	
	BOAH 2537-Conflict Resolution in the Workplace	1.5	variable	
	BSEO 2012-Social Entrepreneurship	1.5	Spring	
	BSEO 2034-Sustainability and Corporate Responsibility	1.5	Summer	
	BSEO 2511-Management of Strategic Alliances 1	1.5	Spring	
	BSEO 2525-Competitive Intelligence	1.5	Spring	
	BSEO 2538-Strategic Leadership	1.5	variable	
	BSPP 2122-Leading Organizations to Innovate Smarter	1.5	Summer	
TOTAL CERTIFICATE CREDITS: 10.5				

Project Management

Faculty advisor: Richard Wendell

<http://www.business.pitt.edu/katz/faculty/wendell.php>

The *Project Management Certificate* builds on the foundation of the MBA core classes by developing fundamental knowledge and advanced skills in project management. The course work for the certificate covers all components of project management as given in *A Guide to the Project Management Body of Knowledge* by the Project Management Institute (PMI) and goes beyond the basics by exploring the use of decision technologies together with relevant software to more effectively manage resources and risk. Further, students can explore other advanced topics by choosing courses from selected electives.

The certificate enables students to sit for the PMI Certified Associate in Project Management (CAPM) exam. It also prepares students — both in contact hours and subject knowledge — for the Project Management Professional (PMP) exam, which a student may take if he or she has obtained the extensive professional experience required by PMI for this certification.

	Course	Credits	Term(s) <i>likely</i> to be offered	<input checked="" type="checkbox"/>
REQUIRED COURSES: Two (2) courses totaling 4.5 credits				
	BMIS 2551-Project Management Concepts and Processes	3.0	Spring	
	BQOM 2546-Project Management Fundamentals and Analytics	1.5	Spring	
REQUIRED COURSE SELECTION: One (1) course totaling 1.5-3.0 credits. <i>Additional coursework surpassing 3.0 credits within this set of course options is not applicable without the written consent of the faculty advisor</i>				
	*BIND 2024-Consulting Field Project	3.0	Fall/Spring	
	*BOAH 2551-Organizational Leadership Project Course	1.5	variable	
	*BMIS 2056-Management Information Systems Practicum	3.0	Fall	
	*BQOM 2139-Six Sigma Theory and Practice	3.0	Fall/Spring	
	<u>*SPECIAL CONSIDERATIONS</u> <i>Requires prior faculty approval with documentation of a significant project management role in the course project</i>			
ELIGIBLE ELECTIVE COURSES: Any combination of credits necessary to meet minimum requirements for certificate (10.5)				
	BACC 2528-Managerial Accounting	1.5	Spring	
	BACC/BQOM 2549-Strategic Cost Analysis	1.5	Spring	
	BOAH 2532-Negotiations, Teamwork, and Change	1.5	Fall; Spring; Summer	
	BOAH 2537-Conflict Resolution in the Workplace	1.5	variable	
	BQOM 2521-Decision Making in a Complex Environment	1.5	Fall; Spring	
	BQOM 2534-Strategic Procurement and Sourcing Management	1.5	Spring	
	BQOM 2537-Forecasting	1.5	Fall; Spring	
TOTAL CERTIFICATE CREDITS: 10.5				

Experiential-based Learning Requirements for the Certificate in Project Management

The requirements for the Project Management Certificate include an experience-based learning component in using the principles of project management in practice. This component is satisfied by demonstrating a significant project management experience in an approved project-based course. Currently, the approved courses include:

- BIND 2024 - Consulting Field Project
- BOAH 2551 - Organizational Leadership Project Course
- BMIS 2056 - Management Information Systems Practicum
- BQOM 2139 - Six Sigma: Theory & Practice (Note: In this course the student must serve in Team Lead role)

In order to effectively practice project management in a project-based course, it is important that students first obtain formal training in project management. It is strongly recommended (but not required) that students take at least one of the two required project management courses for that training. If a student wishes to take a project-based course to satisfy the experiential-based learning requirement for the Project Management Certificate without first having had one of the two required project management courses, then the student must first satisfactorily demonstrate to the project management faculty advisor (currently Professor Richard E. Wendell) that he/she has the necessary knowledge in project management.

At the conclusion of the project-based course, a student must demonstrate a significant project management experience by submitting an Experiential Report on the practice of project management in the project-based course. Below is a template that should be used for this Report. The faculty advisor will review the Report and will make a determination on whether the documented experience in the project-based course satisfactorily meets the experience-based learning requirement.

In cases where graduation (or other) deadlines are relevant, it is important to confirm submission dates for the Report with the faculty advisor to insure that there is adequate time for its review. Please note that without approval from the faculty advisor, the MBA Office will not be able to verify the completion of the Certificate requirements.

Template: Experiential Report for the Project Management Certificate

1. Description of the project (including the sponsoring company, a statement of the project purpose, and the specified deliverables)
2. Names, titles, emails, and addresses of the project team, the company representative and stake-holders
3. A copy of the project charter (if available)
4. The baseline plan including a list & description of project activities, duration of each activity, predecessors, responsibility assignments, critical activities, and schedule (given as a baseline Gantt chart).
5. A specification of what project management software, if any, was used (e.g., Microsoft Project, Excel, Smartsheet, etc.) and how it was used. List the advantages/disadvantages of the software in the project (or in not using software if appropriate)
6. The communications plan
7. The plan for managing risks in the project
8. How progress on the project was monitored and an assessment of how effective such monitoring was
9. A description of changes made during the project (e.g., in activity durations, activity sequencing, scope, schedule, resource assignments) to the baseline project plan (including what, when and why changes were made)
10. A discussion of any motivational problems encountered with team members. If none, give a discussion of why
11. Description of any problems caused by cultural differences among team members and how/if they were resolved
12. Description of how the planned deliverables differed from the final deliverables and why
13. A description of the student's project management roles in the project, a description of any difficulties in these roles, and a description how such difficulties were resolved
14. A list of lessons learned (both good and bad)
15. Sign-off on the accuracy of this Experiential Report by the faculty member(s) overseeing the project-based course

Technology, Innovation, and Entrepreneurship

Faculty advisor: Sue Cohen

<http://www.business.pitt.edu/katz/faculty/cohen.php>

The *Technology, Innovation, and Entrepreneurship Certificate* (TIE) prepares you to navigate the fast evolving field of technology-led business creation. Each of the courses offered in the TIE certificate engages students in experience-based learning. TIE will immerse you in live projects and embed you in Pittsburgh's vibrant innovation ecosystems, where you will learn firsthand how to create new businesses – within established companies or as new ventures. You will gain the confidence to lead your organization into unknown terrain, competence in analyzing complex market and non-market forces, conversance in the language of value creation, and the capacity to synthesize creative insights from diverse disciplinary tools.

Topics covered include organizational frameworks to foster and focus invention on strategically relevant projects, and to manage the process of converting high potential ideas into new products or services, and businesses; valuation of and financing strategies for new ventures; market sizing, selection, and development; business model ideation and creation; and partnership strategies. Other major topics to be addressed include the product development process, business plan creation and implementation, competitive intelligence programs, and managerial approaches to the adoption and diffusion of new technologies.

	Course	Credits	Term(s) likely to be offered	<input checked="" type="checkbox"/>
ELIGIBLE COURSES: Any combination of 10.5 credits				
	BMIS 2679-Technology Innovation, Adoption, & Diffusion	3.0	Spring	
	BMKT 2526-Product Development and Management	3.0	Spring	
	BSEO 2500-Commercializing University Technologies	3.0	Spring	
	BSEO 2511-Management of Strategic Alliances 1	1.5	Spring	
	BSEO 2525-Competitive Intelligence	1.5	Spring	
	BSEO 2531-Entrepreneurship & New Venture Initiation	3.0	Fall; Spring	
	BSPP 2111-Commercializing New Technologies	3.0	Fall	
	*EITHER BQOM 2904-Creativity and Problem Solving	1.5	Spring	
	OR BQOM 2521-Decision Making in Complex Environment	1.5	Fall; Spring; Summer	
	*EITHER BIOENG 2150-Medical Product Ideation	3.0	Fall	
	OR BIOENG 2151-Medical Product Development	3.0	Spring	
*SPECIAL CONSIDERATIONS Only one course within the preceding sets of offerings can be applied toward the certificate.				
TOTAL CERTIFICATE CREDITS: 10.5				