

# BU.001 (MBA)

## Courses

### BU.001.351. Professional Development for Career Success.

This experience-based course is designed to help first-year, full-time MBA students develop the skills needed to accomplish their personal and professional goals and build lifelong career management skills to navigate the changing world of work and global marketplace. Students will engage in online discussions and interactive career labs to practice course content, collaborate and learn best practices from colleagues and instructors. Active participation is essential so that students develop skills in sequence and receive feedback. Students are expected to interact and engage with peers, coaches and employer relations team members, alumni, and industry professionals throughout this course.

### BU.001.600. Graduate Internship Project.

Internship projects are available for students needing transcript documentation of an approved Carey Business School Internship. The Internship Project course is an audit only, no credit course offered during each semester. Carey Business School students must be enrolled in a degree program at least one semester (9 credits) before seeking an internship. Students should apply and register for the internship project course at least two weeks before the internship begins. (0 credit)

### BU.920.601. Business Communication. 2 Credits.

Effective leaders are also skillful communicators. To succeed as a leader, you not only must drive individual and team performance, but also inspire diverse stakeholders to trust you and believe in you. Developing and implementing the right strategy is only part of the job; you also must convince colleagues and clients that you are ready to lead.

### BU.920.602. Accounting Foundations. 2 Credits.

Business leaders must be conversant in accounting, the language of business. This course equips future business leaders with essential understanding of financial and managerial accounting and the ability to interpret financial status and make effective managerial decisions by using accounting numbers. The covered topics include fundamentals of financial statements, evaluation of financial positions and risks, managerial accounting concepts, and capital budgeting techniques.

### BU.920.603. Microeconomics and Market Design. 2 Credits.

This course develops the students' ability to apply fundamental microeconomics concepts and tools to decision making by consumers and firms, and to understand economic exchanges and markets. The first half of the course covers consumer choice and market demand, production costs and firms' profit maximization, market competition and equilibrium, market power and the implications of different market structures for output and pricing decisions. The second half is devoted to understanding the principles and design of practical market mechanisms; topics include game theory, auctions, matching algorithms, and market "platforms".

### BU.920.604. Finance. 2 Credits.

This course covers central issues in financial management and corporate finance. Students will learn how financial managers make investment, financing and other decisions and the tools they use to reach such decisions. Topics covered include time value of money, risk, valuation, capital structure, capital budgeting, and mean-variance portfolio selection. The course provides the analytical tools and the financial theories needed to implement sound financial decisions within a corporation (and outside of a corporation). Ideas are presented in a cohesive way within the framework of the no-arbitrage principle, the fundamental principle shaping all aspects of modern finance. Command of the subject is crucially important for anyone considering a career not only in investment banking, investment management or trading, but also in general management, corporate strategy, management consulting, entrepreneurship, and the non-profit world.

### BU.920.605. Marketing Management. 2 Credits.

New digital technology has enabled consumers to take more control of their lives. Wearable devices, smartphone apps, etc., provide consumers with new tools to connect with friends, expand their network, obtain information to improve their buying decisions, change bad habits, monitor health indexes, manage mental health, etc. Individual decisions are often influenced by others. In this course, we learn what drives consumers' needs and their choices, with special reference to the new tech environment. Making use of these insights and taking into account a company's constraints and the competitive environment (i.e., competitors' product portfolio, their constraints, etc.), we study how firms can come up with new products/services or modify their existing portfolios to serve unmet needs. The customer insights also allows us to achieve more efficient segmentation, targeting and positioning (STP), and design more powerful tactical tools like pricing, distribution, advertising, and marketing communication (commonly referred to as the 4Ps) to help reach targeted consumers and improve their adoption and loyalty, with the goal of providing superior customer value to the consumers. Marketing is a multidisciplinary area that makes use of economics, psychology, sociology, experiments, field data, statistics, and econometrics to understand how individuals make their decisions. A unique aspect of this course is to study how the internet has empowered peer effects via social networks and two-sided market platforms, and how companies should take advantage of these new tools in managing customers and developing their businesses.

### BU.920.606. Operations Management. 2 Credits.

Operations Management seeks to match supply with demand in a marketplace: On the supply side, it generates value by orchestrating technologies, resources, and processes needed for creating products and services; on the demand side, it captures value by fulfilling the promises of revenue models with the right balance of various competing objectives. This course provides an actionable overview of Operations Management, emphasizing both quantitative models and qualitative strategies needed for shaping and innovating service and manufacturing organizations' business models. We will apply a diverse set of marketplace analytics tools (e.g., flow analysis, process redesign, queueing theory, inventory control, lean, and data analytics) to a variety of operational scenarios, from automobile factories to healthcare organizations, from brick-and-mortar stores to e-retailing, and from airlines to online platforms, centering around a coherent framework known as "the operations prism" (flows, variability, and buffers). Through this course, students are also expected to gain a perspective on the role of artificial intelligence in managing 21st-century operations.

**BU.920.607. Competitive Strategy. 2 Credits.**

This module requires students to assume the role of a general manager in the 2020's and beyond. General managers have to cope with tremendous complexity, uncertainty, and inadequate information. An important requirement of a general manager's job is the ability to think in a cross-functional and holistic manner. Since the beginning of the new millennium, technology progress has been accelerated. The internet, mobile devices, and the abundance of personal data available to companies reshaped the competitive landscape and new business models emerged. As technology does not show any sign of slowing down, creativity and innovation are more critical than ever to achieve success, as is the ability to digest and apply tremendous amounts of cutting-edge research quickly. The concepts and frameworks to be covered in this course range from the, now classic, Porter's 5-forces Analysis, through well understood framework of vertical and horizontal integration, and to cutting edge theories of two-sided markets, network effects, and advertisement-driven, transaction-driven, and data-monetization-driven businesses.

**BU.920.621. Data Science: Statistics. 2 Credits.**

Students learn statistical techniques for further study in business, economics, and finance. The course covers descriptive statistics, probability, discrete and continuous random variables, hypothesis testing, and analysis of variance. The course emphasizes statistics to solve management problems. Case studies, spreadsheets, and computer software are used.

**BU.920.622. Data Science: Econometrics for Market Analysis. 2 Credits.**

Our course will be centered around the experiment and why experimentation is so important. We will develop the basic linear regression framework, which is a commonly used econometric technique to evaluate real-world questions and quantify experimental results. We will study three cutting-edge techniques for understanding cause and effect: randomized control trials, difference-in-differences, and regression discontinuity. We

**Prerequisite(s):** BU.920.621

**BU.920.623. Data Science: Big Data Consulting Project. 2 Credits.**

Big Data Consulting Project is the first in a sequence of experiential courses for full-time MBA students. The course features a partnering organization (client), which provides a large dataset accompanied with inquiries. Students work in teams, to answer the client's inquiries using a combination of descriptive and predictive analytics. To this end, students may use a combination of data visualization tools and programming languages for data analysis (such as Tableau and R). The students will be introduced to these techniques and tools in the lecture component of the course as well as in earlier courses such as the Bootcamp: Immersion in Technology, Data Science: Statistics, and Data Science: Econometrics for Market Analysis. In this first course of the experiential sequence, the students will adopt several planning and feedback tools that will help them work as a team.

**BU.920.624. Data Science: Artificial Intelligence. 2 Credits.**

Since its inception in 1950s, Artificial Intelligence (AI) has been shaped by the rise and fall of various competing ideas and techniques emerging from a myriad of disciplines, including computer science, economics, ethics, linguistics, mathematics, operations research, philosophy, psychology, and statistics. Since 2012, deep learning has taken center stage in AI and expanded the landscape of AI to include applications spanning virtually all industries and sectors. This course introduces key concepts of AI, including its mathematical, computational, and economic foundations, and how to manage and lead businesses in the age of AI. Students will learn how to develop concrete AI applications that transform structured and unstructured data to tools with potential of generating business and human value. Students will develop a concrete understanding of AI strategy in a variety of scenarios, including health, operations and supply chain management, marketing, and marketplace design. Students will also develop AI leadership skills that synthesize human and non-human intelligence, with limitation of AI in mind, including, for example, how AI can amplify or mitigate human biases.

**BU.920.631. Behavioral Science: Leadership and Organizational Behavior. 2 Credits.**

The purpose of this course, required for students in the full-time MBA program at the Carey Business School, is to introduce students to fundamental topics related to managing, leading, and working in modern organizations. The course exposes students to a broad array of frameworks for understanding individual, team, and organizational behavior, with particular emphasis on the design of work, interpersonal dynamics, organizational innovation and change, global work environments, and crafting meaningful careers. This breadth of topics, ranging across organizational levels and career stages, distinguishes the course and is meant to complement students' later coursework focused on individual decision-making, solving problems in teams, and avoiding pitfalls of early career managers.

**BU.920.632. Behavioral Science: Design Thinking. 2 Credits.**

During this course, students will learn about and participate in Design Thinking: a human-centered problem-solving approach utilized by some of the most creative and competitive businesses globally. With emphases on research, ideation, iteration, prototyping, and multidisciplinary teams, Design Thinking helps practitioners leverage their creativity to achieve novel solutions to complex problems. This two-day intensive course will leverage experiential learning, with students working together in teams to solve a complex problem using Design Thinking.

**BU.920.633. Behavioral Science: Negotiating Collaboratively. 2 Credits.**

We negotiate every day—many of us, all day. Determining what we will pay, how much we will get paid, and how to convince our colleagues of our data-driven solutions: All of these are negotiations. Despite the ubiquity of negotiation and its centrality as a leadership competency, however, many of us know little about the strategy and psychology underlying it. This course provides students with the foundational knowledge and skills needed to negotiate. Designed around a series of research-based negotiation exercises, the course exposes students to multiple negotiation situations that help them understand the two fundamental approaches to negotiation. By reflecting on these exercises in light of negotiation theory, students develop an awareness of their personal negotiation style and how to hone it. By the end of the course, students will have the basic skills needed to negotiate collaboratively and effectively.

**BU.920.634. Behavioral Science: Leading Change. 2 Credits.**

A core leadership challenge is strategically, efficiently and fluidly guiding others through the stages of organizational change. Change is an important aspect of life for people, groups, and especially organizations. Change is ever more important as we, and the organizations in which we work, face multiple and shifting imperatives. In fact, the ability to create change can make or break careers. We often muddle through change satisfactorily. Yet, we can improve our success if we apply frameworks, techniques, and perspectives that elevate our abilities beyond the common sense level of performance. We do this by analyzing the forces that drive organizations to change, examining impediments to change, and surveying approaches for making organizational change more effective.

**BU.920.636. Behavioral Science: Negotiating Collaboratively II. 2 Credits.**

We negotiate every day—many of us, all day. Determining what we will pay, how much we will get paid, and how to convince our colleagues of our data-driven solutions: All of these are negotiations. Despite the ubiquity of negotiation and its centrality as a leadership competency, however, many of us know little about the strategy and psychology underlying it. Building from Negotiating Collaboratively I, which provides students with the foundational knowledge and skills needed to negotiate, Negotiating Collaboratively II teaches students advanced negotiation skills and prepares them to negotiate in complex but critical situations. Examples of advanced skills include negotiating across cultures and over virtual media like Zoom. Examples of complex but critical negotiation situations include disputes and ethically fraught deals. Finally, and in addition to learning advanced skills and encountering complex negotiations, students in Negotiating Collaboratively II will negotiate additional simulations involving data and healthcare, receive additional personalized feedback, and apply their skills to negotiations occurring in other classes (i.e., Commercializing Discovery) and/or in their careers (i.e., to job offers they are receiving). By the end of the course, students will be able to display and successfully deploy a variety of sophisticated and situation-appropriate negotiation strategies.

**BU.920.711. Foundations of Business Analytics. 2 Credits.**

Being a leader in a data driven world requires the knowledge of both data-related (statistical) methods and of appropriate models to use that data. The Business Analytics class focuses on the latter: it introduces students to analytical frameworks used for decision making. These include Linear and Integer Optimization, Decision Analysis, Risk modeling, and Monte Carlo Simulation. For each methodology students are first exposed to the basic mechanics, and then apply the methodology to real-world business problems using software. Emphasis will be not on programming, but rather on formulating problems, translating those formulations into useful models, optimizing and/or displaying the models, and interpreting results. The course will not produce experts at modeling and/or programming (although students may be able to pick up a few spreadsheet skills along the way). Rather, the goal is to prepare managers who are comfortable with translating trade-offs into models, understanding the output of the software, and who are appreciative of quantitative approaches to decision making.

**Prerequisite(s):** BU.920.621

**BU.920.713. Ethical Leadership. 2 Credits.**

Students in this course will critically examine ethical questions at the heart of contemporary organizational life. What is a leader's ethical obligation to the people they serve? How can ethics and pragmatism in business co-exist? Why do individuals within organizations fall prey to unethical behavior? And how can one maintain an ethical compass in a globalized world with competing value claims? Contemporary program-specific topics, such as the ethics of privacy, big data, and automation will also be scrutinized. With cases and empirical research as a backdrop, this highly interactive seminar will help students develop the skills, dispositions, and frameworks required of an effective leader.

**Prerequisite(s):** BU.920.711

**BU.920.721. Foundations of Business of Health. 2 Credits.**

This course provides an overview of the evolution, structure and current issues in the health care system. It examines the unique features of health care as a product, and the changing relationships between patients, physicians, hospitals, insurers, employers, communities, and government. The course examines three broad segments of the health care industry: payors, providers and suppliers. Within the payor segment, the course examines the sources and destinations of spending, managing care, insurance design, payment models, strategy, and efforts to address payer gaps including insufficient access and social determinants of health. Within the provider segment, the course examines the impact of cost containment, payment reform, and competition on the structure, innovation, care quality, and efficiency of hospitals, physicians, and integrated delivery systems. Within the supplier segment, the course will examine developments in the biotechnology, pharmaceutical, medical devices, genomics, connected health and IT industries.

**BU.920.722. Business Law, Health Law, and Regulations. 2 Credits.**

This course provides students with an overview of the legal and regulatory environment as it affects health care and business. With the increasing intersection between health care delivery and law, this course introduces students to the legal and regulatory issues they are likely to face in managing health care organizations. Using cutting-edge cases, students will explore medical malpractice, negligence, liability (physician, product, and corporate), criminal aspects of health care, patient consent and rights, and health care reform. In today's economy, a thorough working knowledge of the legal and regulatory environment in which businesses operate is essential for well-prepared business executives. This course provides an overview of the legal and regulatory frameworks affecting business in the United States. Topics include forms of business organization, contracts, torts and product liability, intellectual property, constitutional law business transactions, and discrimination and employment issues.

**Prerequisite(s):** BU.920.721

**BU.920.723. Ethics of Business of Health. 2 Credits.**

Students in this course will critically examine ethical questions at the heart of the contemporary healthcare industry. What are the unique ethical obligations of healthcare organizations to patients, providers, and society? How can ethics and pragmatism in healthcare co-exist? Contemporary program-specific topics, such as the ethics of privacy, ethical resource allocation and access to care, and paternalism in healthcare, will also be scrutinized. With cases and empirical research as a backdrop, this highly interactive seminar will help students develop the skills, dispositions, and frameworks required of an effective leader in health fields.

**BU.920.724. Artificial Intelligence and Business of Health. 2 Credits.**

Artificial intelligence is not the future of healthcare. It is already a reality in medicine, and its importance in improving healthcare delivery is expected to grow substantially in future decades. As of June 2024, 950 AI-powered medical devices have been cleared for clinical use by the U.S. Food and Drug Administration. The recent boom in generative AI has further fueled enthusiasm for medical AI, presenting a rare opportunity to address challenges like aging populations, declining productivity, rising costs, and disparities in access to care. This course explores the intersection of AI and the business of health, introducing key AI concepts, including its mathematical and computational foundations, economic forces, and its impact on healthcare. Students will learn how to develop predictive and generative AI applications that transform structured and unstructured healthcare data into tools that enhance patient outcomes, streamline operations, and create value in the health sector. The course will cover AI strategies in various healthcare contexts, including patient care, medical research, healthcare operations, and public health supply chains. A key focus will be on the science of scaling medical AI, integrating AI into clinical workflows to improve productivity, access, and equity in healthcare. The course will also address the importance of sustainable reimbursement models for medical AI, exploring different paths AI creators can take towards reimbursement and the roles of various stakeholders in this process. Additionally, students will develop AI leadership skills that synthesize human and non-human intelligence, with an understanding of AI's inner workings and limitations, including how AI can reinforce or mitigate human biases in healthcare. By the end of the course, students will be equipped to lead the integration of AI into healthcare systems, ensuring that AI's benefits are broadly and appropriately realized, supported by sustainable financial models.

**BU.920.811. Design Lab. 2 Credits.**

This experiential course is the first part of a two-part series that will provide a hands-on, data-driven experience for students to develop a product or service that has the potential to improve healthcare for patients around the world. In this first part, students will learn how to explore unmet needs in the industry by connecting with leading experts in the field, doing background research and conducting interviews. Students will identify problems that have potential to result in significant opportunities and will learn how to translate these problems into need statements. Students will learn how to screen needs with a deep-dive into the problem through primary and secondary research, understanding existing solutions and competitors, a stakeholder analysis and a detailed market analysis through customer segmentation and discovery. Students will apply principles of ideation, design thinking and user-centered design to develop the winning concepts and develop a prototype that can be tested for commercialization in the second part of the course.

**Corequisite(s):** Corequisite-BU.920.812

**BU.920.812. Commercializing Discovery. 2 Credits.**

This course teaches the process of bringing discoveries to market. Students learn about innovation and invention processes, how to identify opportunities and assess when ideas are inventions, determine the steps required to bring the product to market, including intellectual property protection and regulatory processes, and craft a strategy to license early stage invention to third parties for further development. Students work in small teams on early-stage invention projects that are patented or patent pending sourced by the instructor from university and government technology transfer offices. Students will analyze the feasibility of commercializing the invention so that it can be licensed to a third party that can pursue entrepreneurial funding and development. Students enhance their business education by developing collaborative consulting engagements with businesses and nonprofit organizations in which students assist their client organizations in addressing existing and emerging challenges in the health care space.

**Prerequisite(s):** BU.920.811

**Corequisite(s):** Corequisite-BU.920.811

**BU.920.814. Advising Project Teams. 2 Credits.**

Organizations commonly rely on teams to get work done. At the same time, the effectiveness of teams can vary greatly depending on the its leadership and processes. After completing the Innovative Field Project, students can elect to participate in this experiential course to further develop their capacity to lead teams. During the quarter students will be exposed to behavioral research to enhance their knowledge of collaborative work, and practice the corresponding skills by advising an Innovative Field Project team.

**Prerequisite(s):** BU.920.816

**BU.920.815. Applied Behavioral Strategy for Organizational and Social Impact. 2 Credits.**

Have you wondered why monetary incentives sometimes work to achieve intended outcomes, whereas they spectacularly backfire in others? Were your decisions affected by "choice architecture" in school or your workplace? Can Netflix incentivize its customers to exercise, and do they have a responsibility to do so? These are examples of inquiries you will encounter in this experiential learning course. A business partner will offer a real-world problem for you to solve, learn and apply concepts from neoclassical economics (incentive theory) and behavioral economics (choice architecture, framing, nudges). You will be challenged to apply learnings on how incentives and nudges (or a combination) impact decisions to improve organizational processes, outcomes, or society. Students will learn principal-agent theory and incentive design, and behavioral concepts such as hyperbolic discounting, loss aversion, and the potential of "choice architecture" to affect behavior. Students will apply economic and behavioral concepts and tools working in teams on a real business problem in partnership with an organization. Teams will scope and provide actionable recommendations to solve a problem. Applications may cover a wide range, such as converting first-time customers into repeat customers, or encouraging employees or community members to recycle, exercise or lower their carbon footprint. The course is relevant to students interested in public service, management and leadership.

**BU.920.816. Innovation Field Project. 4 Credits.**

The Innovation Field Project is the second experiential course in the full-time MBA program. Students work in teams to define, and scope problems posed by partner organizations, and deliver innovative solutions using evidence-based approaches. Students use the concepts and tools studied in their first year – such as research methods, data analytics, creative problem-solving techniques, and discipline-specific knowledge – to analyze the business issue at hand and provide innovative, actionable recommendations to the project partners. The business problem might relate to a wide range of issues, including process or service design, strategy development, financial risk management, or marketing. Projects might also encompass large scale thematic issues facing contemporary organizations, such as the ethical dilemmas that leaders face. Projects can be in any sector including tech, retail, banking, health or manufacturing. HTI focused projects may include physician group practices, hospitals, pharmaceutical firms, public health organizations and biotechnology firms.