Integrated Business and Engineering Honors Program

INTEGRATED BUSINESS AND ENGINEERING HONORS PROGRAM

After four years and a minimum of 137 credits, students will receive a single Bachelor of Science Degree in Business and Engineering. The program meets the accreditation standards of AACSB International. Students are required to maintain a minimum GPA of 3.25 in order to remain in the program.

Students in the IBE Honors Program can major in any area of business or engineering that Lehigh offers. After freshman year, each student will elect a major in either the College of Business and Economics or the P. C. Rossin College of Engineering and Applied Science. Students wanting to major in an area of business can select from: accounting, business information systems, economics, finance, marketing, management or supply chain management.

Admission to the Integrated Business and Engineering Honors Program is highly selective, with annual admission limited to approximately 50 students. The University’s Office of Admissions (610-758-3100) can explain the procedure for applying to the program.

It is possible that a small number of exceptional students may be admitted to the program following the completion of their freshman year. Admission at this point would be highly competitive and based upon freshman year GPA, faculty recommendations, and space availability.

The co-directors of the IBE Honors Program are Stephen G. Buell, Professor of Finance (steve@lehigh.edu) and Robert H. Storer, Professor of Industrial and Manufacturing Systems Engineering (rhs2@lehigh.edu). For additional information, visit the IBE web site at www.lehigh.edu/ibe.

Courses
IBE 010 Integrated Business and Engineering Freshman Seminar 1 Credit
Introduction to the various business and engineering professions through a series of presentations and demonstrations offered by faculty and business and industry leaders. Emphasis is on the diversity of business and engineering career opportunities and the associated curricular choices. Other topics include leadership, team building and career planning. Students are required to create their web page and post their four-year curriculum plan and an updated resume. Open only to first-year students in the Integrated Business and Engineering Honors Program.

IBE 050 Integrated Business and Engineering Freshman Workshop 3 Credits
Introduction to how business and engineering activities create value with a focus on innovation, design and the business value chain. Introduction to analytical tools, modeling and simulation techniques used in business and engineering applications. By taking apart products and the companies that make them, students develop skills in such areas as competitive strategy, marketing mix, financial modeling, organization of the supply chain, virtual (computer) modeling, engineering drawing, development of technical specifications, testing and measurement. Open only to students in the Integrated Business and Engineering Honors Program.

IBE 150 Integrated Business and Engineering Sophomore Laboratory 1 Credit
A series of cases that integrate elements of business and engineering. Example topics include, but are not limited to, introduction to cost benefit analysis, introduction to modeling and optimization, team dynamics, and international negotiation and joint ventures. Oral presentations and written reports. Open only to students in the Integrated Business and Engineering Honors Program.

IBE 171 Integrated Business and Engineering Independent Study 1 Credit
Students address a technical issue in a business context from an entrepreneurial focus. Students pursue their own business start-up idea, either a product or a service, and develop a business plan that includes prototypes and testing (engineering) as well as a marketing plan and a base case financial model (business). The goal of the course is for students to enter a business plan or entrepreneurial competition in a local, regional or national level. Open only to students in the Integrated Business and Engineering Honors Program.

Prerequisites: IBE 050
IBE 250 Integrated Business and Engineering Junior Laboratory 1 Credit
A semester-long simulation game in which interdisciplinary teams of IBE students compete against each other. Topics include market analysis, working capital management, capital budgeting, raising long-term capital, plant location, and inventory control. Oral presentations and written reports. Open only to students in the Integrated Business and Engineering Honors Program.

IBE 271 Independent Study 1 Credit
IBE 380 Integrated Business and Engineering Capstone Project I 3 Credits
IBE students work in cross-disciplinary teams of 5 to 6 business and engineering majors with a faculty mentor on the marketing, financial and economic planning, and technical and economic feasibility of actual new product concepts initiated by the course’s corporate sponsors. These sponsors are incubator start-up firms to ensure that the projects have both business and engineering elements. Written reports and oral presentations to sponsors and invited venture capitalists are required. Open only to students in the Integrated Business and Engineering Honors Program.

IBE 385 Integrated Business and Engineering Capstone Project II 3 Credits
IBE students continue to work with the detailed design including the fabrication and testing of working prototypes of their new products designed in IBE Capstone Project I course. In addition to the technical design of the products, detailed financial and marketing plans are required. Written reports and oral presentations to sponsors and invited venture capitalists are required. Open only to students in the Integrated Business and Engineering Honors Program.