

**University of Southern California**  
**VITERBI SCHOOL OF ENGINEERING**

Bachelor of Science in Industrial and Systems Engineering  
*Program Learning Objectives*

The USC Viterbi School of Engineering Bachelor of Science in Industrial and Systems Engineering imparts rigorous training in science, engineering and management, to produce leaders for the future who are both technically competent and business aware. Graduates of our program build successful and rewarding careers as engineers and managers in a broad variety of service (e.g.: management consulting, US armed forces, retailing, and entertainment) and manufacturing (e.g.: aerospace, food, pharmaceuticals, and electronics) organizations. Upon completion of the USC Viterbi School of Engineering Bachelor of Science in Industrial and Systems Engineering, students will:

- demonstrate broad understanding of physical sciences and mathematics, production processes, engineering economy, and information technology;
- be able to apply appropriate analytical models to understand the interconnected relationships among the people, materials, information, equipment and energy within a system, and measure the influence of their behavior on the system performance;
- be able to work collaboratively, communicate effectively, and abide by the Engineering Code of Ethics; and
- demonstrate understanding of contemporary engineering design principles and associated innovative practices that allow organizations to effectively meet the needs of customers while efficiently utilizing the resources of the production system. Students will be able to implement these practices under guidance of industrial and systems engineering faculty members in preparation for employment in service and manufacturing organizations.