University of Southern California VITERBI SCHOOL OF ENGINEERING

<u>Master of Science in Computer Science (High Performance Computing and Simulation)</u>

Program Learning Objectives

The purpose of the USC Viterbi School of Engineering Master of Science in Computer Science (High Performance Computing and Simulation) program is to prepare students for high level professional employment in any sector of computer science that incorporates high-end parallel computers, high-speed networks, and advanced scientific visualization; or to pursue advanced graduate studies focusing on related problems in the field. Graduates might pursue computer science-related employment or advanced graduate study in diverse real-world domains including physical sciences, biological sciences, engineering, and computer science.

- Upon completion of the USC Master of Science in Computer Science (High Performance Computing and Simulation) program, students will be able to demonstrate broad understanding of solving real-world problems using state-of-the-art computational techniques with high-end parallel computers, high-speed networks, and advanced scientific visualization.
- Upon completion of the USC Master of Science in Computer Science (High Performance Computing and Simulation) program, students will be able to apply critical principles and skills pertinent to MSCS (High Performance Computing and Simulation) duties in their employment and professional practice.
- Upon completion of the USC Master of Science in Computer Science (High Performance Computing and Simulation) program, students will be able to work in diverse global contexts and apply universally respectful and globally centric practices pertinent to MSCS (High Performance Computing and Simulation) duties in international and domestic contexts.
- USC students enrolled in the Master of Science in Computer Science (High Performance Computing and Simulation) program will demonstrate understanding of contemporary research questions, results, and areas of application relating to high performance computing and simulation.