MS IN COMPUTING: IMAGE ANALYSIS

A student may pursue an MS with (1) a thesis option, or (2) a project option, or (3) a course-only option. The minimum number of credits for any of three options is 30 from graduate level classes. A maximum of 6 project hours or 9 thesis hours is allowed to be included in the program of study for students in the project or the thesis option. A minimum of 6 hours of thesis research is required for the thesis option.

TRACK FACULTY

Tom Fletcher (Track Director), Tom Henderson, Tolga Tasdizen, Bill Thompson, Ross Whitaker

COURSE REQUIREMENTS Required courses:	
CS 6640	Image Processing
CS 7640	Advanced Image Processing and/or BIOEN 6500 Mathematics of Imaging
Students are also required to complete two out of the following three courses. The third can be taken as elective.	
CS 6150	Advanced Algorithms
CS 6320	3D Computer Vision
CS 6350	Machine Learning

The Program of Study must be courses at the 6000 level or above and research credits. Of the required 30 semester hours, up to 24 credit hours must be graduate courses within the SoC or on the following list of recommended electives.

ELECTIVES Recommended elective courses within the School of Computing and other departments are listed below:	
IMAGING, VISUALIZATION & GRAPHICS	
CS 6630	Scientific Visualization
CS 6650	Perception for Graphics
CS 6670	Computer-Aided Geometric Design I
BIOEN 6330	Principles of Magnetic Resonance Imaging
BIOEN 6500	Mathematics of Imaging
COMPUTATIONAL METHODS	
CS 6160	Computational Geometry
CS 6170	Computational Topology
CS 6210	Advanced Scientific Computing I
CS 6220	Advanced Scientific Computing II
CS 6550	Foundations of Algorithms in Computer Graphics and Visualization
STATISTICS & LEARNING	
CS 6300	Artificial Intelligence
CS 6390	Probabilistic Modeling
CS 6560	Computational Statistics
ECE 6540	Estimation Theory

Students may place out of required courses or electives by substituting or transferring courses from other institutions. Substitute courses must be regular classes with exams and/or assignments, not seminar, readings, or independent study classes, and they must be approved by the Track Director.

PHD IN COMPUTING:
IMAGE ANALYSIS

A minimum of 50 credits is required, of which at least 27 credits must be graduate course work, and at least 14 credits must be dissertation research (CS 7970). Graduate course work applied toward an MS degree may be included. **Seminars may be used as part of the required 50 hours, but independent study cannot.**

TRACK FACULTY

Tom Fletcher (Track Director), Tom Henderson, Tolga Tasdizen, Bill Thompson, Ross Whitaker

COURSE REQUIREMENTS Required courses:	
CS 6640	Image Processing
CS 7640	Advanced Image Processing and/or BIOEN 6500 Mathematics of Imaging
Students are also required to complete two out of the following three courses: The third can be taken as elective.	
CS 6150	Advanced Algorithms
CS 6320	3D Computer Vision
CS 6350	Machine Learning

ELECTIVES Computer Science courses on the Program of Study must be courses at the 6000 level or above and research credits. Of the required 27 semester hours, up to 12 credit hours may be graduate courses outside of the School of Computing. Recommended elective courses:	
IMAGING, VISUALIZATION & GRAPHICS	
CS 6630	Scientific Visualization
CS 6650	Perception for Graphics
CS 6670	Computer-Aided Geometric Design I
BIOEN 6330	Principles of Magnetic Resonance Imaging
BIOEN 6500	Mathematics of Imaging
COMPUTATIONAL METHODS	
CS 6160	Computational Geometry
CS 6170	Computational Topology
CS 6210	Advanced Scientific Computing I
CS 6220	Advanced Scientific Computing II
CS 6550	Foundations of Algorithms in Computer Graphics and Visualization
STATISTICS & LEARNING	
CS 6300	Artificial Intelligence
CS 6390	Probabilistic Modeling
CS 6560	Computational Statistics
ECE 6540	Estimation Theory

Students may place out of required courses or electives by substituting or transferring courses from other institutions. Substitute courses must be regular classes with exams and/or assignments, not seminar, readings, or independent study classes, and they must be approved by the Track Director. Up to 12 approved credit hours may be transferred from other institutions, and up to 20 credit hours may be used from a previous MS degree at the University of Utah.