

MedE 199 Special Topics in Medical Engineering: **Medical Polymers**. 9 units (3-0-6): first term.
Prerequisites: instructor's permission. This course provides a broad coverage on the frontiers of polymeric medical materials and their application, from diagnostic devices to therapeutics and prosthetics. Topics include principles of polymer chemistry, polymer characterization, polymer processing, natural polymers, hydrogels in regenerative medicine, polymer composites, and polymer processing with emphasis on additive manufacturing. This course provides the opportunity for students to engage in an interactive learning environment and apply their knowledge to solve real-life medical industry challenges in the form of group-projects. Instructor: Reza Ghodsi, Ph.D