M.Sc. Specialization in Technologies in Prosthetics and Bionics (Thesis Track)

The Faculties of Biomedical Engineering and Mechanical Engineering at the Technion offer a new specialization track exclusively for students in the research-based M.Sc. program (thesis track). The track trains experts in rehabilitation technologies, prosthetics, and bionics.
The program was established to provide an academic and technological response to the growing need for rehabilitating the injured, as well as addressing an aging population and chronic diseases.
The track combines engineering research with clinical experience, and includes an applied practicum course that connects students directly with clinical workshops in prosthetics and bionics. Research projects will be supervised by experts from both faculties, including leading researchers and clinical specialists in the application of diverse solutions.
*This track does not grant official clinical therapeutic certification.

Updated Curriculum
Students must complete a minimum of 9 credits from the mandatory course list (List 1), and complete the remaining credits from the recommended elective courses (List 2).

List 1: Mandatory Courses (Minimum 9 Credits)
3360306 *Human Movement Analysis (2.5 cr)
3360516 *Rehabilitation Biomechanics (2.5 cr)
0360101 *Biomechanics of Human Movement (3.0 cr)
0360108 *Topics in Bionics and Wearable Robotics (3.0 cr
3380018 *Selected Topics in Applied Prosthetics (2.0 cr)
*Dedicated Course (2.0 cr) (Course number pending)

List 2: Recommended Electives
0360026 *Kinematics, Dynamics, and Control of Robots (2.5 cr)
33604063 *D Bioprinting (2.5 cr)
3360404 *Bioelectrical Interfaces (2.5 cr)
3360529 *Tissue Engineering (2.5 cr)
3360325 *Ultrasound in Medicine (2.5 cr)
3360208 *Methods in Biological Signal Analysis (3.0 cr)
3360326 *Data Analysis and Parameter Estimation (2.5 cr)