801. Biokinetics I Fall, Winter, Spring. 3(3-0) BIM 812 or concurrently with department approval.

811. Biokinetics Spring. 3(3-0) BIM 810 or approval of department.

Application of Newtonian mechanics to problems of force transmission and related motions in the muscular-skeletal system.

812. Theory of Tissue Mechanics Fall. 3(3-0) Approval of department.

Introduces the concepts of stress and strain in tissue and the dependency of mechanical parameters on biological factors.

850. Research Seminar Fall, Winter, Spring. 1(1-0) May reenroll for a maximum of 3 credits. Approval of department.

Discussion of current research topics in biomechanics with strong clinical application.

871. Research Methods in Biomechanics I Fall. 2(1-3) BIM 812 or concurrently with approval of department.

Measurement of responses of biological tissues to internal and external demands. Techniques include visual, palpatory, electrophysiological, and mechanical assessment methods.

872. Research Methods in Biomechanics II Winter. 2(1-3) BIM 810 or concurrently with approval of department.

Measurement of body geometry and mass distribution. Measurements include anthropometry, somatometry, volume and inertial properties of the human body.

873. Research Methods in Biomechanics III Spring. 2(1-3) BIM 811 or concurrently with approval of department.

Measurement of dynamics of human motion. Measurements include force plate and photogrammetric kinematic assessment methods.

959. Independent Study Fall, Winter, Spring. 1 to 4 credits. May reenroll for a maximum of 9 credits. Approval of instructor.

Individual or group work related to biomechanics and/or neuromusculoskeletal system primarily.


Conduct research for master's thesis.