MIE1001 WINTER 2018 ADVANCED DYNAMICS

Instructor	Eric Diller	E-mail	ediller@mie.utoronto.ca
Office	MC310	Office Hours	Thursdays 9:30-11:30 am

TIME, LOCATION: Tuesdays 9am-11am BA1240

Thursday 1pm-2pm BA2179 No lecture reading week (February 22, 22)

MARKING SCHEME: Homework: 20%

Quizzes: 30% Final exam: 50%

EXAMS: Tentative quizzes: February 9, March 16

Tentative Final Exam: April 17

TEXTBOOK (highly suggested): Principles of Dynamics (Second Edition)

Donald T. Greenwood, 1988

Additional notes will be posted to Blackboard

REFERENCE BOOK: *Methods of Analytical Dynamics*

Leonard Meirovitch, 1970

TOPICS: Kinematics of rigid body motion

Work, energy, momentum

Variational principles and Lagrange's Equations

Hamilton's principle Hamilton's equations

3D rotations: Euler angles, quaternions