UNIVERSITY OF SASKATCHEWAN
DEPARTMENT OF PHYSICS & ENGINEERING PHYSICS
EP 324.3 Mechanics IV Course Outline 1996 (rev. 1)

Instructor: **Dr. D. Steele (266 Physics, 966-6447)** **Office Hours: T Th 1:00 - 2:30 pm**

PART I **Fluid Mechanics**
TEXTBOOK: **Engineering Fluid Mechanics, Roberson and Crowe (5th ed.)**

1.	Introduction, units, definitions and properties (Ch. 1, 2)	1 week
2.	Fluid Statics: Pressure, Buoyancy (Ch. 3)	1.5 weeks
3.	Fluids in Motion: Velocity, Flow, Acceleration, Control-Volume Approach, Continuity Equation, Rotation and Vorticity (Ch. 4)	1.5 weeks
4.	Pressure Variation in Flowing Fluids: Equation of Motion, Bernoulli's Equation, Separation and Cavitation (Ch. 5)	2 weeks
5.	Application of Momentum and Energy Conservation (Ch. 6, 7)	1 week
6.	Selected Topics from Chapters 8 - 11	1 week

PART II **Rigid Body Motion**
TEXTBOOK: **Vector Mechanics for Engineers, Beer and Johnston (5th ed.)**

1.	Review: a) System of Particles (Ch. 9) b) Rigid body Kinematics (Ch. 15)	1 week
2.	Rigid Body Motion in a Plane (Ch. 16, 17)	2 weeks
3.	Rigid Body Motion in Three-Dimensional Space (Ch. 18)	2 weeks

Assignments: Assigned each Tuesday, due the following Tuesday.

Mid-term Examinations: Three, on the following dates:
Thursday, February 1, 1996
Thursday, March 7, 1996
Thursday, April 4, 1996

Mark Distribution:

Assignments	15%
Mid-terms	15% per examination
FINAL	40%