

# MECH 539. COMPUTATIONAL AERODYNAMICS.

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Credits: 3

Offered by: Mechanical Engineering (Faculty of Engineering)

This course is not offered this catalogue year.

## Description

Fundamental equations. Basic flow singularities. Boundary element methods. Source, doublet and vortex panel methods for 2D and 3D incompressible and compressible flows. Method of characteristics. Euler equations for inviscid rotational flows. Finite-difference and finite-volume methods. Explicit and implicit time-integration methods. Quasi 1D solutions. Nozzle and confined aerofoil applications.

- (3-0-6)
- Prerequisite: MECH 309 or MATH 317, MECH 533.

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