USEFUL RESOURCES

SUBJECT NAME : FLUID MECHANICS

Course Offered by: Prof. Deepesh Singh

Aerofoil- https://www.studysmarter.co.uk/explanations/engineering/engineering-fluid-mechanics/aerofoil/

https://web.mit.edu/2.972/www/reports/airfoil/airfoil.html

https://www.britannica.com/technology/airfoil

Atmospheric Drag- https://www.studysmarter.co.uk/explanations/engineering/engineering-fluid-mechanics/atmospheric-drag/

https://www.swpc.noaa.gov/impacts/satellite-drag

https://www.windows2universe.org/spaceweather/sat_drag.html

Atmospheric Pressure- https://www.studysmarter.co.uk/explanations/engineering/engineering-fluid-mechanics/atmospheric-pressure/

https://www.britannica.com/science/atmospheric-pressure

https://education.nationalgeographic.org/resource/atmospheric-pressure/

http://ww2010.atmos.uiuc.edu/(Gh)/guides/mtr/fw/prs/def.rxml

Bernoulli Equation- https://www.studysmarter.co.uk/explanations/engineering/engineering-fluid-mechanics/bernoulli-equation/

https://www.princeton.edu/~asmits/Bicycle_web/Bernoulli.html

https://www.grc.nasa.gov/www/k-12/airplane/bern.html

Boundary Layer- https://www.studysmarter.co.uk/explanations/engineering/engineering-fluid-mechanics/boundary-layer/

https://www.grc.nasa.gov/www/k-12/BGP/boundlay.html

https://www.britannica.com/science/boundary-layer

Buckingham Pi Theorem- https://www.studysmarter.co.uk/explanations/engineering/engineering-fluid-mechanics/buckingham-pi-theorem/

http://www.astro.yale.edu/coppi/astro520/buckingham_pi/Buckinghamforlect1.pdf

https://ocw.mit.edu/courses/2-25-advanced-fluid-mechanics-fall-2013/c0a4521f55e9191d557c167e99e97469_MIT2_25F13_The_Buckingham.pdf

https://projects.exeter.ac.uk/fluidflow/Courses/FluidDynamics3211-2/DimensionalAnalysis/dimensionalLecturese4.html

Capillarity- https://www.studysmarter.co.uk/explanations/engineering/engineering-fluid-mechanics/capillarity/

Cavitation- https://www.studysmarter.co.uk/explanations/engineering/engineering-fluid-mechanics/cavitation/

https://www.britannica.com/science/cavitation

https://web.mit.edu/hml/ncfmf/16CAV.pdf

Centrifugal Pump-

https://www.studysmarter.co.uk/explanations/engineering/engineering-fluid-mechanics/centrifugal-pump/

Continuity Equation-

https://www.studysmarter.co.uk/explanations/engineering/engineering-fluid-mechanics/continuity-equation/

Coriolis Force-

https://www.studysmarter.co.uk/explanations/engineering/engineering-fluid-mechanics/coriolis-force/

https://www.britannica.com/science/Coriolis-force

https://education.nationalgeographic.org/resource/coriolis-effect/

Couette Flow-

https://www.studysmarter.co.uk/explanations/engineering/engineering-fluid-mechanics/couette-flow/

https://ocw.mit.edu/courses/2-25-advanced-fluid-mechanics-fall-2013/1a114d602956fa0dd328155f9b45f93d_MIT2_25F13_Couet_and_Pois.pdf

Dimensional Analysis-

https://www.studysmarter.co.uk/explanations/engineering/engineering-fluid-mechanics/dimensional-analysis/

Dimensionless Numbers in Fluid Mechanics-

https://www.studysmarter.co.uk/explanations/engineering/engineering-fluid-mechanics/dimensionless-numbers-in-fluid-mechanics/

Drag on a Sphere-

https://www.studysmarter.co.uk/explanations/engineering/engineering-fluid-mechanics/drag-on-a-sphere/

https://www1.grc.nasa.gov/beginners-guide-to-aeronautics/drag-on-a-sphere/

https://www.me.psu.edu/cimbala/me325web_Spring_2012/Labs/Drag/intro.pdf

Dynamic Viscosity-

https://www.studysmarter.co.uk/explanations/engineering/engineering-fluid-mechanics/dynamic-viscosity/

Euler's Equation-

https://www.studysmarter.co.uk/explanations/engineering/engineering-fluid-mechanics/eulers-equation-fluid/

Flow Separation-

https://www.studysmarter.co.uk/explanations/engineering/engineering-fluid-mechanics/flow-separation/

https://www.studysmarter.co.uk/explanations/engineering/engineering-fluid-mechanics/flow-separation/#:~:text=Flow%20Separation%2C%20in%20the%20simplest,due%20to%20adverse%20pressure%20gradient.

Fluid Dynamics-

https://www.studysmarter.co.uk/explanations/engineering/engineering-fluid-mechanics/fluid-dynamics/

Fluid Kinematics-

https://www.studysmarter.co.uk/explanations/engineering/engineering-fluid-mechanics/fluid-kinematics/

Fluid Statics-

https://www.studysmarter.co.uk/explanations/engineering/engineering-fluid-mechanics/fluid-statics/

Hydrostatic Force-

https://www.studysmarter.co.uk/explanations/engineering/engineering-fluid-mechanics/hydrostatic-force/

Impulse Turbine-

https://www.studysmarter.co.uk/explanations/engineering/engineering-fluid-mechanics/impulse-turbine/

Irrotational Flow-

https://www.studysmarter.co.uk/explanations/engineering/engineering-fluid-mechanics/irrotational-flow/

Laminar vs Turbulent Flow-

https://www.studysmarter.co.uk/explanations/engineering/engineering-fluid-mechanics/laminar-flow-in-pipe/

https://www.youtube.com/watch?v=5zI9sG3pjVU

https://www.youtube.com/watch?v=vhDaCZZ0Sc4

Moody Chart-

https://www.studysmarter.co.uk/explanations/engineering/engineering-fluid-mechanics/moody-chart/

No Slip Condition-

https://www.studysmarter.co.uk/explanations/engineering/engineering-fluid-mechanics/no-slip-condition/

https://www.youtube.com/watch?v=fqGd3HKHCLA

Pitot Tube-

https://www.studysmarter.co.uk/explanations/engineering/engineering-fluid-mechanics/pitot-tube/

https://www.youtube.com/watch?v=3zEdtkuNYLU

Pressure Measurement-

https://www.studysmarter.co.uk/explanations/engineering/engineering-fluid-mechanics/pressure-measurement/

Rotational Flow-

https://www.studysmarter.co.uk/explanations/engineering/engineering-fluid-mechanics/rotational-flow/

Siphon-

https://www.studysmarter.co.uk/explanations/engineering/engineering-fluid-mechanics/siphon/

https://www.youtube.com/watch?v=CZmP0vsRBZ8

Turbulent Flow in Pipes-

https://www.studysmarter.co.uk/explanations/engineering/engineering-fluid-mechanics/turbulent-flow-in-pipes/

Turbine-

https://www.studysmarter.co.uk/explanations/engineering/engineering-fluid-mechanics/turbine/

https://www.youtube.com/watch?v=X3XgIueu4xk

Venturi Meter-

https://www.studysmarter.co.uk/explanations/engineering/engineering-fluid-mechanics/venturi-meter/