

# Outline and schedule

## Assessment for this course

4 short assignments 50%

Final presentation 40%

Final report 10%

## Tentative schedule

1. January 13th -Steady state box models, residence times
2. January 20th - Modelling horizontal mixing rates, turbulent diffusion
3. January 27th-Stratified flows, river plumes, effluent outfalls
4. February 3rd-More stratified flows, applications to reservoirs, lakes and coastal zones
5. February 10th -Wave dynamics in lakes, particle resuspension, long shore currents
6. February 24th - Tidal flushing of coastal harbours, estuarine dynamics
7. March 3rd- Dynamics of rivers, shear dispersion of pollutants
8. March 10th - Eutrophication of inland waters and applications to remediation
9. March 17th - Relevance of fluid dynamics to COVID spread in air
10. March 24th– Topic open for discussion – a guest lecture
11. March 31st - Student lead presentations on environmental case studies, looking at how environmental flow process influence contaminant transport.
12. April 7th - Student lead presentations

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