## 1.10S: MODELLING FUTURE TRANSPORTATION SYSTEMS: USER-CENTRIC, GREEN, AUTOMATED & AI-DRIVEN

| | Day 1 | Day 2 | Day 3 | Day 4 | Day 5 |
|---|---|---|---|---|---|
| **Lecture 1** *Demand* | Course overview Intro to demand models | Route, time-of-travel and other relevant choices | Behavior and electric vehicles: from ownership to charging | Demand and preferences shifts with automated mobility | Big data and new transportation services |
| **Lecture 2** *Supply* | Road and public transport network models | Transport supply simulation | Electric mobility management | Traffic theory with AVs | Resiliency in transportation systems |
| **Lecture 3** *Interactions* | Equilibrium and day-to-day dynamic models | Systems with on-demand and user-centric mobility | Active and green mobility systems | Simulating future automated mobility | Future mobility interactions: the case for urban space management |
| **Lecture 4** *Case-Studies* | Intro to AI in transportation systems | Future demand management | Urban charging location | Autonomy and its implications for society and the environment | Transport innovations: evolutions or revolutions - lecture and round table |
| **Q&A / Discussion of Student Defined Problems/Projects** | Q&A Foundations | Q&A User-centric | Q&A Green | Q&A Automated | Q&A |