Suggested subjects from other UPC or UB master programs to MESIO UPC-UB students. They can choose up to 3 of these subjects. Bear in mind that enrollment is conditioned to the availability of free places (so students might not be admitted to courses with high demand).

**MIRI, Master in Innovation and Research in Informatics (FIB, UPC), specialization in Data Science:** Each subject has 6 ECTS

a. **Kernel based Machine Learning and Multivariate Modeling (KMLMM-MIRI)** Fall semester
   Recommended only if a previous course on Machine Learning or Statistical Learning has been done.

b. **Advanced Statistical Modeling (ASM-MIRI)** Fall semester
   Not recommended if MLLG and Stat. Learning have been done

c. **Complex and Social Networks (CSN-MIRI)** Fall semester

d. **Optimization Techniques for Data Mining (OTDM-MIRI)** Fall semester
   Not recommended if Opt. in Data Science has been done

e. **Open Data (OD-MIRI)** Spring semester

f. **Machine Learning (ML-MIRI)** Spring semester

**MASTER FOUNDATIONS OF DATA SCIENCE (FMI, UB)**

a. **Machine learning** (6 ECTS) Fall semester

b. **Deep learning** (3 ECTS) Spring semester

c. **Big data** (3 ECTS) Spring semester

d. **Recommenders** (3 ECTS) Spring semester

See here the detailed description of each subject.

**SCTL, Master in Supply Chain and Transport Logistics (UPC)**

a. **Introducció a la Cadena de Subministrament** Fall semester

b. **Modelització de Sistemes de Transport i Logística** Fall semester

c. **Anàlisi de Dades de Transport i Logística** Fall semester

d. **Models d’Optimització de Xarxes de Transport** Fall semester

e. **Models Avançats de Demanda** Fall semester

f. **Demanda de Sistemes de Transport** Spring semester

g. **Models de Simulació de Trànsit** Spring semester

h. **Transport de Mercaderies** Spring semester

**Master in Automatic Control and Robotics (ETSEIB – UPC)**

Scientific Python for Engineers (3 ECTS)

**Master in Biomedical Engineering (Faculty of Physics-UB and ETSEIB-UPC)**

Biomedical Informatics (2,5 ECTS)