International Master of Biomedical Engineering

Joint diploma between Arts et Metiers, PSL and Paris Descartes

Teaching goals:

- International recruitment and courses taught in English.
- General biomedical engineering education and specialization into a specific field.
- Topics on clinical, engineering and basic science.
- Efficient interdisciplinary scientific dialogue.
- Ethical, Industrial, and Clinical issues.
- Social and cultural interaction.

Teaching tools:

- Common general Bioengineering education
- Mixing clinical, engineering, biology and basic science students and faculty.
- Seminars, conferences & inter-track courses
- Ethical, clinical & industrial teaching, exchanges
- Interdisciplinary integration week
- Common “headquarters” & networking activities

Mater program chairs:

- Sophie Bernard (Université Paris Descartes)
- André Klarfeld (PSL)
- Sébastien Laporte (Arts et Métiers)

5 Tracks

Curriculum

In M1 (semesters 1 and 2), there is one single track, with individualized choices of courses according to students’ backgrounds.

- Master 1
  - The M2 (semesters 3 and 4) offers five tracks
    - Bioengineering and Innovation in Neurosciences (BIN)
    - Biostatistics (BHS)
    - BioMaterials and Biodevices (BIOMAT)
    - BioMechanics (BIMECH)
    - Molecular and cellular biotechnologies (MCB)

Cross-track Teaching

- Weekly “Open your mind” seminar with high-profile international speakers
- One week Interdisciplinary seminar

Biomedical Imaging (BIM) Track

Semester 1

- Introduction to Radiology
- Medical Imaging Analysis (B E6110)
- Machine Learning (B M6110)
- Medical Physics (B P6110)
- Biostatistics (B H6110)
- Ethics of Biomedical Research (B C6110)
- Fundamentals of Biostatistics (B H6110)

Semester 2

- Biostatistics (B H6110)
- Medical Imaging Analysis (B E6110)
- Image Processing (B P 6110)
- Machine Learning (B M6110)
- Medical Physics (B P 6110)
- Biostatistics (B H6110)

BIM: Academic and clinical partners

BIM: Contacts & Information

Track chairs

- Elsa Angelini
- Florence Cloppet
- Catherine Oppenheim

Pedagogic Committee

- Charles-André Cruziol (Université Paris Descartes)
- Patricia Druet ( Mines ParisTech)
- Pietro Gori (Telecom Paris)

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