

**COURSE DATA****DATA SUBJECT**

Code: 44774
Name: Biomaterials and biomechanics
Cycle: Master's Degree
ECTS Credits: 4.5
Academic year: 2025-26

STUDY (S)

Degree	Center	Acad. year	Period
2231 - Master's Degree in Biomedical Engineering	Facultat de Medicina i Odontologia	1	Second quarter

SUBJECT-MATTER

Degree	Subject-matter	Character
2231 - Master's Degree in Biomedical Engineering	Bridging courses	ELECTIVES

COORDINATION

RAMOS SOLER DAVID

SUMMARY**PREVIOUS KNOWLEDGE****RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE**

There are no specified enrollment restrictions with other subjects of the curriculum.

OTHER REQUIREMENTS**COMPETENCES / LEARNING OUTCOMES****DESCRIPTION OF CONTENTS**

1.



2.

3.

WORKLOAD**PRESENCIAL ACTIVITIES**

Activity	Hours
Theory	45,00
Total hours	45,00

NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	0,00
Independent study and work	0,00
Preparation of lessons	0,00
Preparation for assessment activities	0,00
Resolution of case studies	0,00
Total hours	0,00

TEACHING METHODOLOGY**EVALUATION****REFERENCES**



- Biomaterials science: an introduction to materials in medicine (B.D. Ratner) Biomaterials: an introduction (Joon Bu Park) Principles of tissue engineering (Robert P. Lanza; Robert Langer; Joseph Vacanti) Frontiers in tissue engineering (Charles W. Patrick ; Antonios G. Mikos ; Larry V. McIntire) Biomechanics: mechanical properties of living tissues (Y. Fung) Biomedical engineering fundamentals (Joseph D. Bronzino) Characterization of Biomaterials (M Jaffe) Anatomía y Fisiología Humana (Elaine Marieb) Fundamentals of Biomechanics (Nihat Özkaya) Human Body Dynamics: Classical Mechanics and Human Movement (Aydin Tözeren) Kinesiology: The Mechanics & Pathomechanics of Human Movement (Carol A. Oatis)