

# MASTER 'ELECTROCHEMISTRY. SCIENCE & TECHNOLOGY'

## Year 2024/2025

### Further information:

- (i) <https://web.ua.es/en/masteres/electroquimica-ciencia-y-tecnologia/curriculum.html>  
 (ii) [http://www.ub.edu/gestio-ensenyaments/Quimica/MD30B\\_PE.pdf](http://www.ub.edu/gestio-ensenyaments/Quimica/MD30B_PE.pdf)

### Schedule for Compulsory subjects taught within the joint period at the Universitat d'Alacant

MODULE	TOPIC	SUBJECT	University of the professor	Credits	Dates (Year 2025)
<b>Fundamental</b>	<b>Fundamentals of Electrochemistry</b>	Electrified interphase and Electrochemical equilibrium	UCO, US	3	13-18 January
		Electrode kinetics, transport and electrocatalysis	UMU. UAberdeen	3	14-25 January
		Electrochemical techniques	UA, UBU, UMU, UV	4	20 January – 1 February
	<b>Technological applications of the Electrochemistry</b>	Energy generation and storage. Study and prevention of corrosion	UAM, UPCT, US	4	27 January – 8 February
		Industrial electrochemistry	UA, UAB, UB	6	3-15 February
		Electrochemical modification of surfaces	UB, UBU	4	17-21 February

### Online optional subjects (Advanced Module, Term 2, 12 ECTS)

- Advanced techniques in Electrochemistry** (24/02 – 05/05, 3 ECTS, **UBU, UMU**)
- Electrocatalysis** (24/02 – 05/05, 3 ECTS, **UA, US**)
- Energy applications of Electrochemistry: Batteries and Fuel cells**  
(25/02 – 29/04, 3 ECTS, **UAM, UPCT**)
- Biological Applications of Electrochemistry** (25/02 – 29/04, 3 ECTS, **UBU, UCO, US**)

## Schedule for subjects taught at the Universitat de Barcelona

### COMPULSORY UB

- (i) **Introduction to the Experimentation in Electrochemistry** (October-December 2024, 8 ECTS)  
(Advanced Module; Topic: Fundamentals of Electrochemistry)
- (ii) **Final Master Project** (December 2024 – July 2025, 16 ECTS)  
Research work carried out in a group associated to the Master. Contact with the coordinator.

### OPTIONAL UB

5 subjects from the Master in 'Applied Materials Chemistry' are offered:

<b><i>Characterization Techniques</i></b>	(Term 1, 6 ECTS)
<b><i>Chemistry and Materials in Alternative Energy</i></b>	(Term 1, 3 ECTS)
<b><i>Materials Electrochemistry</i></b>	(Term 2, 3 ECTS)
<b><i>Coating Technology</i></b>	(Term 2, 3 ECTS)
<b><i>Nanomagnetic Systems</i></b>	(Term 2, 3 ECTS)

## Schedule for Optional subjects taught at other Universities

Ask the coordinator.