



EMORY
UNIVERSITY



UNIVERSITÀ
DI SIENA
1240

DIPARTIMENTO DI
BIOTECNOLOGIE,
CHIMICA E FARMACIA
— DBCF

Emory@Unisi Summer School

Chemistry for Life and Environment

XXI EDITION



27 May - 4 July 2026



<https://www.dbcf.unisi.it/en/research/cooperation/emoryunisi-2026>

SCHEDULE of ACTIVITIES

27 May, Wednesday	
ca 5.15 pm	Arrival of Emory Group at Siena Check-in at Hotel Vico Alto
7.30	Welcome Apericena at La Veranda
28 May, Thursday	
9.00 am	Emory Classes at San Miniato (Room #19)
12.30	Lunch time at San Miniato
2.00-2.30 pm	Walking to town
3.00	Guided visit to the "Museo Civico, Palazzo Comunale, Piazza del Campo" Guide, Susanne Bruck
29 May, Friday	
9.00 am	Emory Classes at San Miniato (Room #10)
12.30	Lunch time at San Miniato Mensa
30 May, Saturday	
	Free Day... <i>exploring</i> Siena (this is a suggestion)
31 May, Sunday	
	Free Day... <i>exploring</i> Siena (this is a suggestion)
7.00 pm	Lottery of the Contrada that will run the Palio (2 July)
01 June, Monday	
9.00 am	Emory Classes at Hotel
12.30	Lunch time at San Miniato Mensa
02 June, Tuesday - Italian Civic Holiday (Festa della Repubblica)	
9.00 am	Emory Classes at Hotel
12.30	Lunch time at San Miniato Mensa

03 June, Wednesday – Day at San Miniato (Room #14) OPENING CEREMONY – EMORY@UNISI SUMMER SCHOOL, 21TH EDITION	
10.00 am	Introduction and Greetings Chairman: Agnese Magnani – Director of Department of Biotechnology Chemistry & Pharmacy Roberto di Pietra – Rector of Unisi Milena Maria Fadda – International Office Tracy McGill –Teaching professor, Chemistry Department, Emory University, Co-director of Summer Program Richard Himes – Associate Teaching Professor, Chemistry Department, Emory University, Co-director of Summer Program
10.45	Gabriella Tamasi – <i>Introduction to Summer Program</i>
	Presentations of the summer program and Unisi Research Groups - Chairman: Gabriella Tamasi
11.00	Claudio Rossi <i>The Sienese roots of Escher's art</i>
11.15	Gabriele Carullo <i>A new light on blindness: the emerging role of epigenetics</i>
11.30	Steven Arthur Loiselle <i>Analytical chemistry supporting community monitoring</i>
11.45	Samuele Maramai <i>The chemistry of behavior: allosteric modulators targeting CNS receptors</i>
12.00	Luigi Cutarella <i>Use of computational modeling tools for the design and development of anti-bacterial agents</i>
12.15	Claudia Perini (Department of Life Science) <i>Alarm warning for wild edible ectomycorrhizal fungi due to alien species: what's about the Italian Porcino?</i>
12.30	Enrico Tavarnelli (Department of Physical Sciences, Earth and Environment) <i>Siena and the search for water in the Middle Age</i>
12.45	Students Welcome: Chemistry for AgriFood Science Master Degree
13.00	DBCF Research Day Poster Session & Lunch

04 June, Thursday	
9.00 am	Emory Classes at San Miniato (Room #18)
12.45	Lunch time at San Miniato Mensa
05 June, Friday	
	Emory Students and Faculties visiting Firenze
06 June, Saturday	
	Free weekend
07 June, Sunday	
	Free weekend
08 June, Monday	
9.00 am	Emory Classes at San Miniato (Room #8)
12.45	Lunch time at San Miniato Mensa
09 June, Tuesday – SEMINAR-Day@WOW, Palazzo Bandini Piccolomini	
10.00 am	Lecture Session for both Emory and Unisi Students Chairman: Michele Baglioni Lecture #1 – Raffaello Nardin <i>Combined use of heavy-element isotopes and mass spectrometry techniques for geographical authentication of agri-food products</i>
10.45	Lecture #2 – Duccio Tatini <i>Geographical origin authentication of Italian olive oils, wines and their related plant matrices integrating isotope ratio mass spectrometry and spectroscopic techniques</i>
11.30	Lecture #3 – Jessica Costa <i>Assessment of oxidative stability in olive oils and wines by Electron Paramagnetic Resonance Spectroscopy</i>
12.15	Guided visit to WOW
10 June, Wednesday - LAB-Day at San Miniato	
9.00 am	Emory Classes at San Miniato (Room #23)
12.45	Lunch time at San Miniato Mensa
2.30-5.30 pm	Parallel Laboratory Sessions (5 Emory students/Lab) EVOO LAB-Day Lab session #1 – Duccio Tatini <i>Detecting EVOO adulteration using Gas Chromatography Isotope Ration Mass Spectrometry (GC-IRMS)</i> Lab session #2 – Raffaello Nardin <i>Analysis of volatilome (aroma) profile of EVOO using GC-MS for adulteration studies</i>

	<p>Lab session #3 – Amedeo Boldrini <i>Studying the metabolic profile of EVO oils with High Resolution Mass Spectrometry</i></p> <p>Lab session #4 – Simone Pepi <i>Thermal analysis to evaluate EVOO quality</i></p>
11 June, Thursday	
9.00 am	Emory Classes at San Miniato (Room #23)
12.30	Lunch time at San Miniato Mensa
12 June, Friday	
FIELD-TRIP TO TORRE ALLE TOLFE - SIENA	
10.30 am	Departure from Hotel Vico Alto
11.00-12.30	Tour of the vineyards, olive groves, and wine production areas, with a focus on regenerative agriculture and production of wine and olive oil
12.30-2.00 pm	Family-style lunch at our restaurant with interactive tasting (3 wines, 1 olive oil)
13 June, Saturday	
	Free day
14 June, Sunday	
	Free day
15 June, Monday	
9.00 am	Emory Classes at San Miniato (Room #22)
12.30	Lunch time at San Miniato Mensa
16 June, Tuesday – SEMINAR&LAB-Day@San Miniato (Room #25)	
	Lecture Session for both Emory and Unisi Students
10.00 am	Chairman: Raffaello Nardin Lecture #1 – Simone Pepi <i>Polymeric and metal-organic framework for biomedical application</i>
11.00	Lecture #2 – Ilaria Clemente <i>Perspectives in development of lipid nanoparticles: assembly, kinetics and interactions</i>
12.00	Lecture #3 – Jack Li-Yang Chen <i>Dynamic Catalyst Systems from the Self-assembly of Amphiphiles</i>

2.30-5.30 pm	<p>Parallel Laboratory Sessions (5 Emory students/Lab)</p> <p>Lab session #1 – Ginevra Vigni e Chiara Agnello <i>Lipid Nanoparticles: Comparative Approaches to Manual and Microfluidic Synthesis</i></p> <p>Lab session #2 – Jessica Costa <i>Development of innovative materials through waste valorization</i></p> <p>Lab session #3 – Maria Camilla Baratto <i>Unveiling the invisible: EPR Spectroscopy from fundamental principles to food science</i></p> <p>Lab session #4 – Maddalena Corsini, Raoul Cosenza <i>Electrochemical characterization of $[Fe(CN)_6]^{3-/4-}$ using cyclic voltammetry</i></p> <p>Lab session #5 – Giovanni Ricciardella <i>Maximizing efficiency in chiral synthesis: the racemization of enantiopure amines</i></p>
<p>17 June, Wednesday FIELD-TRIP TO BARONE RICASOLI SpA AGRICOLA (BROLIO, GAIOLE IN CHIANTI)</p>	
<p>8.45 am 9.30 10.00 11.00 12.00 1.00 pm 2.30 4.00 5.00</p>	<p>Departure from Hotel Vico Alto Arrival at Brolio</p> <p>Guided visit and class in the vineyards about Sangiovese and other vines growing and treatments – Massimiliano Biagi</p> <p>Guided visit to and class in the cellars about wine production and aging</p> <p>Wine tasting offered by Brolio</p> <p>Light lunch at Agribar Eroica Caffè, typical Chianti foods</p> <p>Guided visit to the Ricasoli Castle, old enological laboratory of Barone Bettino Ricasoli, History of Chianti and Italy (offered by Brolio)</p> <p>Visit to the Enoteca for wine/oil shopping</p> <p>Return to Siena</p>
<p>18 June, Thursday</p>	
<p>9.00 am 12.30 3.00 pm</p>	<p>Emory Classes at San Miniato (Room #8)</p> <p>Lunch time at San Miniato Mensa</p> <p>Visit to the Accademia dei Fisiocritici: Conservation, Education and Research. Guide <i>Claudia Perini</i></p>

19 June, Friday	
9.00 am	Emory Classes at San Miniato (Room #23)
12.30	Lunch time at San Miniato Mensa
20 June, Saturday	
	Free day
21 June, Sunday	
	Free day
22 June, Monday	
9.00 am	Emory Classes at San Miniato (Room #23)
12.30	Lunch time at San Miniato Mensa
5.30 pm	Guided visit to the Contrada della Torre Museum
23 June, Tuesday – SEMINAR&LAB-Day@San Miniato (Room #11)	
10.00 am	Lecture Session for both Emory and Unisi Students Chairman: Duccio Tatini Lecture #1 – Michele Baglioni <i>Reverting the lead carbonate pigment darkening on paintings</i>
11.00	Lecture #2 – Vincent Conticello <i>Structural Analysis of Protein and Peptide Assemblies</i>
12.00	Lecture #3 – Mariagrazia Lettieri <i>Sensors and Biosensors Development</i>
2.30-5.30 pm	Parallel Laboratory Sessions (5 Emory students/Lab) Lab session #1 – Michele Baglioni <i>Reverting the lead carbonate pigment darkening on paintings - lab activities on egg tempera</i> Lab session #2 – Mariagrazia Lettieri <i>Colorimetric sensors for the development of point-of-care devices</i> Lab session #3 – Riccardo Gaetano Cirrone <i>The Palio of Nutrients: DIY vs benchtop UV-Vis spectroscopy for Siena's water sources</i> Lab session #4 – Valeria Tudino & Sara Rossi <i>Medicinal chemists' daily routine: long story short</i> Lab session #5 –Giuseppina Ivana Truglio <i>Sustainable Hydroformylation in water: microwave irradiation and micellar catalysis roles</i>

24 June, Wednesday – TREKKING-Day@Montalcino & Sant’Antimo	
8.00 am	Departure from Hotel Vico Alto
9.15	Arrival at Montalcino and short guided visit
10.00	Guided trekking (about 7 km) from Passo del Lume Spento towards Abbey of Sant’Antimo Guide: Alessandro Maggiorelli (Official Touristic and Environmental Guide, VademecumTour)
1.00 pm	Lunch at Osteria Bassomondo (Castelnuovo Dell'Abate)
3.30 (ca.)	Departure to Siena
25 June, Thursday	
9.00 am	Emory Classes at San Miniato (Room #22)
12.30	Lunch time at San Miniato Mensa
26 June, Friday	
	Free long Week-end
27 June, Saturday	
	Free long Week-end
28 June, Sunday	
	Free long Week-end
29 June, Monday	
9.00 am	Emory Classes at San Miniato (Room #22)
12.30	Lunch time at San Miniato Mensa
1.00 pm	Horse lottery in Piazza del Campo
30 June, Tuesday	
9.00 am	Emory Classes at San Miniato (Room #22)
12.30	Lunch time at San Miniato Mensa
7.00	Horse trials in Piazza del Campo
01 July, Wednesday	
9.00 am	Emory Classes at San Miniato (Room #22)
12.45	Lunch time at San Miniato Mensa
7.00	Horse trials in Piazza del Campo
8.30	Eve Palio Dinner in the Contrada della Torre

02 July, Thursday – PALIO-Day	
07.00 am	Blessing Mass celebrated by Archbishop in Piazza del Campo for Fantino (Jockey)
02.00 pm	Attending to the horse blessing in a Contrada
03.00	Attending to Contrada blessing from the Archbishop at Duomo
04.30	Piazza del Campo ...waiting for Palio Race
... ..	Palio Race
03 July, Friday	
	Packing and shopping day
04 July, Saturday	
	Check-out