Ens veien a València
Nos vemos en Valencia
See you in Valencia
GLOBAL ENGAGEMENT
Texas A&M University and the Valencia Polytechnic University (UPV)

A Summer program for Biological & Agricultural Engineering (BAEN), chemical engineering (CHEN), Agricultural systems Management (AGSM, and nutrition and food science (NFSC)

The proposed global engagement initiative is designed to provide 21st century education to students in Engineering, Food Science, and Agricultural Business Management fields. The Mission is to provide valuable experiences to TAMU students focusing in part on the future domains of Food Science and Engineering education. Through culture awareness and creativity, our students will improve technical and soft skills essential to compete in a globally integrated society. The students will learn the most recent advances in food engineering and technology in the area of enginomics, innovations in food engineering, cultural awareness, and social responsibility. Students will understand how food science and engineering impacts new knowledge and tools to excel in a highly-competitive global economy and changing markets and consumer needs. TAMU students will interact with Spanish undergraduate peers as part of multidimensional teams. This experience will prepare the students to succeed in international careers.
The City of Arts and Sciences is a cultural and architectural complex in the city of Valencia, Spain. It is the most important modern tourist destination in the city of Valencia and one of the 12 Treasures of Spain.

The City of Arts and Sciences is situated at the end of the former riverbed of the river Turia, which was drained and rerouted after a catastrophic flood in 1957. The old riverbed was turned into a picturesque sunken park. Designed by Santiago Calatrava and Félix Candela, the project began the first stages of construction in July 1996, and was inaugurated on April 16, 1998 with the opening of L'Hemisfèric. The last major component of the City of Arts and Sciences, El Palau de les Arts Reina Sofia, was inaugurated on October 9, 2005, Valencian Community Day.
Where are we going?

VALENCIA, SPAIN

The port city of Valencia lies on Spain’s southeastern coast, where the Turia River meets the Mediterranean Sea. It’s known for its City of Arts and Sciences, with futuristic structures including a planetarium, an oceanarium and an interactive museum. Valencia also has several beaches, including some within nearby Albufera Park, a wetlands reserve with a lake and walking trails.

Official languages: Valencian and Spanish
Capital: Valencia
Population: 4,964 million (2018)

VALENCIA POLYTECHNIC UNIVERSITY - UPV

The Polytechnic University of Valencia (UPV) is a Spanish university located in Valencia, with a focus on science and technology. It was founded in 1968 as the Higher Polytechnic School of Valencia and became a university in 1971, but some of its schools are more than 100 years old.

The UPV consists of three campuses: Valencia, Gandia and Alcoy and 14 schools: Business Administration and Management, Fine Arts, Polytechnic School of Alcoy, Polytechnic School of Gandia, Agricultural Engineering, Computer Science, Architecture, Building Management, SCivil Engineering, Design Engineering, Engineering in Geodesy, Cartography and Surveying, Industrial Engineering, Rural Environments and Enology, and Telecommunications Engineering.

The university offers 48 bachelor’s and master’s degrees, and 81 doctoral degrees.

Academic staff - 2,600
Administrative staff: 1,700
Students 37,800
Website: www.upv.es
Summer Courses

We are offering two courses (6 hours) out of four courses offered:

**Engineering students:**

BAEN/CHEN-422 – Unit Operations in Food Processing (PI Moreira) – students learn the application of engineering principles to design several unit operations common in the food industry including pipeline and pump design, freezing, drying, frying, and thermal processing.

BAEN-427 – Engineering Aspects of Packaging (PI Castell-Perez) – students learn the principles of food packaging design, packaging materials and their applications, shelf life calculations, environmental issues.

**Non-engineering students:**

AGSM/NFSC-315 - Food Processing Engineering Technology (Castell-Perez) – introduction to engineering principles applied in the food industry (energy, heat and material balances, heat transfer, pipe flow, refrigeration, psychrometrics).

A fourth course that involves the combination of technical problem-solving and critical thinking skills with soft skills and intercultural learning will be developed.

**COST**

Housing in shared apartments, Tours, Excursions, Group Meals, Coordination and Administration, Faculty Expenses, Cultural Insurance Services International (CISI), Administrative Fee, Miscellaneous ~ $3,500

Tuition & Fees (in-state resident for 6 credit hours) ~ $3,000

International Airfare ~ $1,500

Passport/Visa (if not previously obtained) $150

Meals (not included in program fee) ~ $500
The courses will be taught at the Polytechnic University of Valencia (UPV), a prestigious public University of Spain. As part of the courses structure, students will attend lectures and practical sessions held at the pilot plant facilities of the Department of Food Technology, visit local food processing industries (for instance, wine, olive oil and several processed foods) and participate in two hands-on workshops on Molecular Gastronomy and Spanish Cuisine (e.g., Paella) uniquely designed for students to learn-by-doing. The workshops will be offered by two Food Engineering Professors from the UPV.
**TIMELINE**

**March to June 2019**
- PIs received the award notification by June 2019
- PIs travel to UPV
  - Visit the facility and formalize collaboration in June 2019

**September 2019 to May 2020**
- Fall semester - 2019 development of course material
- Fall/19 & Spring/20 Recruiting and planning
- Write proposal - March
  - PIs contact the colleagues from UPV to discuss possible collaboration, discuss the program with the BAEN DH, and write the proposal
- PIs travel to Valencia - 5 days in June
  - Visit the University facility and residences for students. Discuss course content and practices with UPV collaborators and workshops in molecular gastronomy and Spanish cuisine
- Fall - course materials preparation
  - Prepare course materials and develop a new course for no engineers
- Fall/Spring Recruiting
  - Survey, meetings, create brochures, advertising, interview interested students, access financial aids

**June - Travel preparations**
- Students and faculty prepare all the paper work and documentation and travel to Valencia Spain in the last week of June of 2020

**End of June to July - 5-week Study abroad**
- Dr. Moreira and Dr. Castell will teach 2 courses each, and Dr. Barrufet will lecture selected lectures on computer simulation. The courses will be also offered to UPV students. Lectures and Labs will be from T to R, and visits to companies once a week.

**Fall - Course evaluation**
- Courses will be evaluated by local students and faculty and TAMU students. PIs will make an assessment and make changes for next year.

**September 2020**
- Course evaluation and assessment

**Sunday, June 28 - Thursday, July 2, 2020**
- Lectures and Labs Tuesday-Thursday
  - Wednesday - Field trips

**June – December 2020**
- Students and faculty prepare all the paper work and documentation and travel to Valencia Spain in the last week of June of 2020

- Dr. Moreira and Dr. Castell will teach 2 courses each, and Dr. Barrufet will lecture selected lectures on computer simulation. The courses will be also offered to UPV students. Lectures and Labs will be from T to R, and visits to companies once a week.

- Courses will be evaluated by local students and faculty and TAMU students. PIs will make an assessment and make changes for next year.
For additional information

- Dr. Rosana G. Moreira, Professor of Food engineering Biological & Agricultural Engineering Department rmoreira@tamu.edu – 979-847-8794
- Dr. M. Elena Castell-Perez, Professor of Food Engineering Biological & Agricultural Engineering Department ecastell@tamu.edu – 979-862-7645

This initiative has been supported by

- TAMU Global Public Partnership & Outreach Office
- TAMU BAEN Department
- UPV Food Technology Department