



UNIVERSITY OF PUERTO RICO, MAYAGÜEZ CAMPUS
DEPARTMENT OF CIVIL ENGINEERING & SURVEYING



UPRM CONCRETE CANOE TEAM



Captain

Sebastián J. Aponte Maldonado
sebastian.apontel@upr.edu
787-216-7499

Co-Captain

Daisha G. Pérez Mercado
daisha.perez@upr.edu
939-649-0652

✉ canoahormigon.asce@gmail.com

📷 uprm.concretecanoe

📘 Canoa de Hormigón UPRM

Antes, Ahora y Siempre ¡COLEGIO!



TABLE OF CONTENTS

For Our Sponsors	2-5
What is the American Society of Civil Engineers?	2
What is the Concrete Canoe Competition?	2
Regional Competitions	3
National Competitions	4
Evaluation Method	5
2026-2027 Team	6
How does our team work	6
Annual Work Plan	7
Financial Summary	8-10
Cost Estimate	8
Sponsorship Description	9-10
Past Sponsors	11
Conclusion	12
Captain's Message	13
Donation Form	14



FOR OUR SPONSORS

What is the American Society of Civil Engineers?

The American Society of Civil Engineers is recognized as the oldest and largest civil engineering association in the United States, established in 1852. The student chapter at the University of Puerto Rico at Mayagüez is among the largest in Puerto Rico, with a membership exceeding 200 students.



What is the Concrete Canoe Competition?

The ASCE Concrete Canoe Competition is an annual event that challenges students to design and construct every component of a concrete canoe, including the mold, hull geometry, and a lightweight yet durable concrete mixture. Once completed, the canoe is evaluated through five race events that measure its overall performance.

This competition provides participants with the opportunity to apply classroom concepts in a hands-on setting while promoting professional development, leadership, and teamwork. It also pushes students to strengthen their creativity, engineering judgment, and physical endurance, while gaining valuable technical experience in areas such as concrete mix design, structural analysis, and project management.



FOR OUR SPONSORS

Regional Competitions

The ASCE Southeast Region is composed of Puerto Rico and the states of Alabama, Florida, Georgia, and Tennessee. Every March, nearly 25 universities gather for the annual regional conference, where students compete in events that showcase multiple disciplines within civil engineering. Among the most prominent and competitive events are the ASCE Concrete Canoe Competition and the ASCE Student Steel Bridge Competition, both recognized for the high level of technical knowledge, planning, and execution required.

The delegation from the University of Puerto Rico at Mayagüez has proudly participated in this conference for more than 20 years, maintaining a tradition of excellence at the regional level. The university earned first place overall in 2012, 2013, 2016, 2018, 2019, 2020, and 2021. At the 2022 conference, hosted in Tallahassee by Florida A&M University in collaboration with the University of Florida, the Concrete Canoe Team achieved first place in its category. From 2023 through 2025, the UPRM Concrete Canoe Team earned second place overall, and in 2026, the team secured third place at the regional conference hosted by Florida Atlantic University. The next competition will be held in 2027 at Florida International University.



FOR OUR SPONSORS

National Competitions

ASCE Society-Wide Competitions, commonly known as the national competitions, are held each year after all regional events have concluded. These competitions follow the same standards as the regional conferences, except that only the first-place team from each region earns automatic qualification.

In certain years, additional invitations known as (wild card) are granted, allowing a second team from a region to participate at the national level based on outstanding performance. Through this opportunity, the UPRM Concrete Canoe Team qualified to attend the national championships in both 2019 and 2022, proudly representing the university and Puerto Rico among the top teams in the country.



Host University 2022:
Louisiana Tech,
Ruston Louisiana



FOR OUR SPONSORS

Evaluation Methods

Judging for the Concrete Canoe Competition consists of the following four categories:



Design Report

The technical report describes the geometric shape of the canoe, its structural analysis, testing, concrete mix development, canoe construction procedure, and project management.

Oral Presentation

The oral presentation, lasting five minutes, briefly describes the work carried out during the project. It includes a section of questions from the judges.



Final Product

The final product category includes the aesthetic part of the canoe, the display table, and the buoyancy test, where the canoe is completely submerged in water.



Rowing Race

The rowing competition consists of five races: the men's and women's 200 meters, the men's and women's 200 meters zigzag with buoys, and the four-person 200 meters (two men and two women).





2026-2027 TEAM

How does our team work?

The 2026-2027 team is made up of 19 talented young students, led by a Captain and a Co-Captain. The project is divided into 5 main areas: Geometric Design/Construction, Structural Analysis, Mixture Analysis/Design, Project Management, and Graphic Design.





ANNUAL WORK PLAN

To complete the project on schedule and provide all team members with exposure to technical responsibilities, the work is divided into the five areas previously mentioned. One member is designated to oversee project management, including the coordination of tasks, deadlines, and team activities. To complete the project, the following work plan must be achieved:

1. **Theme and Aesthetics:** Develop a unique artistic concept for the canoe that can also be reflected creatively in the team's exhibition.
 2. **Geometric Design:** Design the canoe to maximize speed, stability, and maneuverability in the water, while complying with all dimensions established in the competition rules.
 3. **Structural Analysis:** Perform analyses to determine the stresses, loads, and deformations the canoe may experience under different conditions.
 4. **Mold Construction:** Build a sectional foam mold that is later assembled to create the final form used for canoe construction.
 5. **Concrete Mix Design:** Develop a lightweight, non-conventional concrete mixture and test it in compression, flexure, and tension to ensure that it meets the standards established by the analysis department.
 6. **Construction of the Canoe:** Concrete layers and reinforcements are placed over the mold. After the concrete is dry, it cures in the mold for 7 days. The mold is then removed, and the canoe is cured again for an additional period of 21 days under water; for a total of 28 days of curing.
 7. **Finishes and Artistic Design:** Polish the canoe, correct surface imperfections, and apply pigmented concrete layers to achieve the final aesthetic design.
 8. **Written Report:** Prepare a detailed technical report describing the entire project.
 9. **Oral Presentation:** Present a summary of the project to the judges during the competition.
-



FINANCIAL SUMMARY

Cost Estimate

The next regional competition will be held in March 2027 at Florida International University. To compete successfully in this event, the UPRM Concrete Canoe Team is committed to raising the funds necessary to cover project development and competition expenses. The estimated costs for the project and required equipment are presented in the following table:

Competition Expenses	
Materials	\$5,500.00
Canoe Transportation	\$7,000.00
Technical Report	\$200.00
Uniforms (formal+competition)	\$1,600.00
Trailer	\$1,500.00
Subtotal	\$15,800.00

Participation Expenses		
	Per Person	Per Team (14)
Registration	\$100.00	\$1,400.00
Plane Ticket	\$700.00	\$9,800.00
Stay	\$300.00	\$4,200.00
Ground Transportation	\$90.00	\$1,260.00
Subtotal	\$1,190.00	\$16,660.00
Participation Expenses + Competition Expenses: \$32,460.00		



FINANCIAL SUMMARY

Sponsorship Description

A sponsorship program has been developed to provide individuals and companies with the opportunity to support our financial goals and become part of this project. In return, sponsors will receive exposure to an audience of approximately 2,000 people through our social media platforms and outreach in both Puerto Rico and the United States.

This recognition may include mentions on our Facebook, Instagram, and Twitter accounts, placement of your company logo on our trailer, team shirts or hoodies, and official team banner. The available sponsorship categories and their respective benefits are outlined in the following table:

Sponsorship Categories		
Platinum	\$1,750.00 - \$4,999.99	Mention in interviews, logo printed on the back of our trailer (small size), individual publication on social networks, team t-shirt and hoodie, and team banner (large size).
Gold	\$1,000.00 - \$1,749.99	Mention in interviews, logo on social networks, t-shirt, hoodie and team banner (medium size).
Silver	\$500.00 - \$999.99	Logo on social networks, t-shirt, hoodie and team banner (medium size).
Bronze	\$201.00 - \$499.99	Mention on social networks and banner (small size) of the team.
Iron	\$200.00 or less	Team banner.



FINANCIAL SUMMARY

Main Sponsors

Deadline January 2027

Highest Donation Sponsor

Platinum status benefits; logo on rowing shirt and sides of trailer (Large size).

\$5,000.00 or more

Platinum status benefits; logo on competition shirt and sides of trailer (Medium size).



- The logos on the shirt are not on the current team logos.
- Where the texts of Main Sponsors are located, the logo would be placed.

Other Sponsorship Methods

Currently, we have other sponsorship methods through which you can help with your contribution.

1. Bank Account - Canoa de Hormigón
2. Equipment Donations: tools, power tools, mixing materials, uniforms, etc.
3. Any item that can be used for fundraising.



SPONSORS

Past Sponsors

2026 UPRM CONCRETE CANOE TEAM SPONSORS

MAJOR SPONSORS

PLATINUM

GOLD

SILVER

BRONZE

IRON

CROWLEY Casino del Mar AT LA CONCHA RESORT F&R Construction Group, Inc. PAULSON PUERTO RICO 3mg FREYSSINET WEST

ARCADIS CIC Construction GROUP Wendy's nieves & nieves LANCO Chevron RUSEVAL SWIMWEAR Burns McDonnell Walmart MCS CMA ARCHITECTS & ENGINEERS LLC EcoEléctrica Hermandad por Puerto Rico WJE VÁZQUEZ FORENSICS LLC ARGOS IDEALHOME REALTY LLC

DDD GROUP JACA & SIERRA BLACK & VEATCH

GCG CONSTRUCTION DESIGN BUILD LLC GLASSTRA GROUP LLC FRATELLI TRUCKING COMPANY ABRELI REFRIGERATION CARLOS ESTIMATING CONSTRUCCIONES MAG ISLA CENTRO PRODUCT

2025 UPRM CONCRETE CANOE TEAM SPONSORS

MAJOR SPONSORS

PLATINUM

GOLD

SILVER

BRONZE

IRON

CROWLEY Casino del Mar AT LA CONCHA RESORT F&R Construction Group, Inc. PAULSON PUERTO RICO 3mg estructuras ShareTech ARGOS

CPM DDD GROUP ARCADIS WJE glasstra EcoEléctrica Jacobs Stantec LANCO NOGAMA JPI Kimley»Horn Bruce CONSULTING GROUP

MFS CONSTRUCTION INNOVA INSURANCE AVCON CENTRAL INDUSTRY GOMERA EDWIN RED FLAMBOYAN LLC JAYMAX CONSTRUCTION CROSSI SHALOM BILINGUAL SCHOOL

CONCLUSION

As students of the University of Puerto Rico, being able to compete, represent the UPRM, and our island is a great pride. In order to represent Puerto Rico and serve as ambassadors for la Cría Colegial, we have to put our intellect to the test, show dedication, and work hard hours in order to bring out the best of us. Like everything in life, participating in this competition brings with it many challenges, both in academic terms and in monetary terms.

The performance of the University of Puerto Rico Concrete Canoe has drastically improved in recent years. This, in part, has been thanks to **our sponsors**; those who have contributed material and/or monetary donations.

We ask for your help in order to meet our goals throughout the year. Contributions can be delivered to any member of the team or sent to the following address:



**Urb. Colinas de Alturas de Mayagüez #2048
Mayagüez, Puerto Rico, 00682**

If you want to donate through ATH Móvil, you can send the money to any member or to the Captain indicating that it is a donation for the Concrete Canoe Team:



(787) - 216-7499

Your contribution will be promoting the development of leaders in the field of Engineering. We know we can achieve our goals, but it will only be possible with your help. We want you to be part of this adventure,

Join the UPRM Concrete Canoe family!

CAPTAIN'S MESSAGE

As Captain of the UPRM Concrete Canoe Team, it is an honor to lead a group of students who are passionate about engineering and committed to representing our university and Puerto Rico with pride. More than a competition team, Concrete Canoe provides students with the opportunity to apply what they learn in the classroom to a real project, gaining hands-on experience while working through every stage of the design and construction process.

This past year was one of tremendous growth for our team, culminating in a 3rd Place Overall finish. That achievement reflects countless hours of hard work and motivates us to continue raising the standard we set for ourselves. Every season presents new challenges, and each challenge becomes an opportunity to grow as engineers while finding new ways to improve our project.

Representing El Colegio and Puerto Rico is a responsibility that we take seriously. Our goal is not only to build a competitive canoe, but also to help our members become professionals who understand the importance of working together and taking initiative when faced with challenges. Through this experience, students gain practical knowledge that will stay with them long after graduation.

With your support, we can continue providing these opportunities while pursuing excellence at the national level. Every contribution helps us move our project forward and gives our members access to the tools and experiences needed to succeed.

Thank you for considering supporting our team and investing in the next generation of engineers. Your support helps us continue showcasing the talent and dedication that define both UPRM and Puerto Rico.



Sebastián J. Aponte Maldonado



Donation Request Form

The following information will be compiled with the purpose that the procedures carried out under your name or the name of your company as Sponsor of the Canoa de Hormigón Team are valid.

Name of Company: _____ Member Name: _____

Amount: _____ Date: _____

Cash: _____ Check: _____ Other: _____ Phone Number: _____

I _____ gave to the team member _____ the amount of _____ dollars in _____ for reasons of sponsorship to the 2026-2027 Concrete Canoe Team from the University of Puerto Rico, Mayaguez Campus. I authorize the use of my name or company's name as sponsor of the team. I confirm that the team information and sponsorship processes were explained to me by the team member.

Sponsors Name: _____ Member Name: _____

Sponsors Signature: _____ Member Signature: _____



Donation Request Form

The following information will be collected in order for the procedures carried out under your name or the name of your company as sponsor of the Concrete Canoe Team to be valid.

Non-tax deductible options

Cash Donation

Must be given to any team member

Donation by ATH Mobile

Should be sent to any team member

Check Donation

In the name of "Canoa de Hormigón"

Send to address:

Concrete Canoe, UPRM -
Dept. Civil Engineering PO BOX 9000,
Mayagüez, PR 00681 - 9000

It can be given to any team member

Tax deductible options

Check Donation

In the name of "University of Puerto Rico,
Mayagüez"

Send to address:

Concrete Canoe, UPRM -
Dept. Civil Engineering PO BOX 9000,
Mayagüez, PR 00681 - 9000

Name of Sponsor/Business/Company: _____

Contact Name: _____

Contact Telephone Number: _____

Postal Address: _____

Amount Donated \$: _____

Date of sending or delivery of donation: _____

Name of team member who made contact: _____

Please complete the form and send it along with a good quality image of your company logo (if applicable) to any member of the team or to the email: canoahormigon.asce@gmail.com after having made the donation through some of the above options.

Thank you for your contribution!

Dear Sponsor,

The students of the Department of Civil Engineering and Surveying of the Mayagüez University Campus, over the years, have put the name of the RUM and our Island high in the Regional Competitions of the American Society of Civil Engineers (ASCE). English). This year, ASCE students/members competed for Second Overall Place in the southeast region, which is made up of universities in Florida, Alabama, Georgia, and Puerto Rico. This championship led the School to obtain among the first 2 places, for the eighth consecutive time in its history. This year, the Concrete Canoe Team competed against 19 other universities in the southwest region in person. The evaluation elements used to determine the awarding of prizes were: the technical report, the presentation before the jury, the final product, and five rowing races. By being judged in the usual way, the team was able to demonstrate their capabilities in the areas for which they prepared, and in this scenario, they managed to win **Third Place in the Regional Competitions!** The team has been recognized throughout the Island thanks to the exposure received through the media, achieving presence in press articles in distinguished newspapers and television reports in the country's news programs.

The Concrete Canoe competition consists of designing, building and paddling, in five different races, a full-scale canoe made of lightweight concrete. Competition requires the ingenuity and application of technical knowledge, acquired in academic courses, of each member; in addition to good physical condition. Leadership and teamwork skills are developed, while knowledge in construction management, structural analysis, naval architectural design, concrete mix design and construction is put into practice.

The goal is to reach the National Competitions. To achieve this, the Concrete Canoe Team has set out to raise the necessary funds to participate and win in the ASCE Rational Conference competitions, which will be held in **Florida in March 2027**. Our participation in said competition depends of the collection of the necessary funds to cover the expenses that are estimated at **\$32,460.00** (see Table 1). The estimate includes construction costs, transportation of the canoe (which is the largest expense of the project), travel expenses and lodging. We have created a sponsorship plan to raise the necessary funds, through which your company will receive exposure in both Puerto Rico and the United States. This exhibition will be possible by mentioning your company on our website (<https://bit.ly/3NUnpPt>), our Facebook page (Canoa de Concrete UPRM), YouTube (UPRM Concrete Canoe Team), Instagram ([uprm.concretecanoe](https://www.instagram.com/uprm.concretecanoe)), on the team shirts, and on the sponsor's banner. A description of the five categories of sponsorship available is included in Tables 4 and 5. Any donation can be offered in check payable to Canoa de Hormigón. This can be delivered to any member of the team carrying this letter or sent to the following address:

***UPRM Concrete Canoe – Dept. of
Civil Engineering, PO Box 9000
Mayagüez, PR 00681 – 9000***

Given the urgency of starting the project, we appreciate a prompt response. Your contribution and help will be promoting the development of leaders in the field of engineering. Any help you can give us will be greatly appreciated. Thank you!

Cordially,



Sebastián J. Aponte Maldonado
canoahormigon.asce@gmail.com
(787)-216-7499

Table 1

Competition Expenses		
Materials		\$5,500.00
Canoe Transportation		\$7,000.00
Technical Report		\$200.00
Uniforms (formal+competition)		\$1,600.00
Trailer		\$1,500.00
Subtotal		\$15,800.00
Participation Expenses		
	Per Person	Per Team (14)
Registration	\$100.00	\$1,400.00
Plane Ticket	\$700.00	\$9,800.00
Stay	\$300.00	\$4,200.00
Ground Transportation	\$90.00	\$1,260.00
Subtotal	\$1,190.00	\$16,660.00
Participation Expenses + Competition Expenses: \$32,460.00		

Table 2

Main Sponsors *Deadline January 2027*	
Highest Donation Sponsor	Platinum status benefits; logo on rowing shirt and sides of trailer (Large size).
\$5,000.00 or more	Platinum status benefits; logo on competition shirt and sides of trailer (Medium size).

Table 3

Sponsorship Categories		
Platinum	\$1,750.00 - \$4,999.99	Mention in interviews, logo printed on the back of our trailer (small size), individual publication on social networks, team t-shirt and hoodie, and team banner (large size).
Gold	\$1,000.00 - \$1,749.99	Mention in interviews, logo on social networks, t-shirt, hoodie and team banner (medium size).
Silver	\$500.00 - \$999.99	Logo on social networks, t-shirt, hoodie and team banner (medium size).
Bronze	\$201.00 - \$499.99	Mention on social networks and banner (small size) of the team.
Iron	\$200.00 or less	Team banner.