

GENERAL INFORMATION

Registration: Enrollment is limited to 16 students who are admitted on a first-come, first-served basis. The full \$195 commuter registration fee includes tuition, supplies, all activities, transportation and lunches. **Registration forms, with payment information, can be completed online at wiu.edu/sao/outreach/youth_enrichment/youthmain.php, mailed to Study Abroad & Outreach, Horrabin Hall 8, Western Illinois University, 1 University Circle, Macomb, IL 61455, or faxed to (309) 298-2226. Checks should be made payable to Western Illinois University.**

Payment: The full commuter fee is \$195. Parents who wish to use a Payment Plan may send a \$100 deposit at the time of registration. Full payment is due 30 days before the start of the program.

Refund Policy: WIU reserves the right to withdraw a program because of unforeseen circumstances or insufficient enrollment. If a program is withdrawn, participants will be notified and fees will be refunded. A \$50 fee will be charged to participants who cancel after Monday, June 5, 2017. **No refunds will be made on or after Monday, June 19, 2017.**

Location: The program is a commuter program on the WIU-Macomb campus. Classes are held both on and off campus and meet Monday-Friday.

Medical/ADA Compliance: Students do not qualify for University health care. Parents should check family insurance policies for health and accident coverage. Western Illinois University is in compliance with the Americans with Disabilities Act of 1990. Please let Study Abroad and Outreach staff know how we can accommodate any special needs students may have at least two weeks prior to the program start date.

Further Information: For further information, call the Office Study Abroad and Outreach office at (309) 298-1911 or toll free at (866) 933-8964.

Western Illinois University is an Affirmative Action and Equal Opportunity employer with a strong commitment to diversity. In that spirit, we are particularly interested in receiving applications from a broad spectrum of people, including, but not limited to, minorities, women and individuals with disabilities. WIU has a non-discrimination policy that includes discrimination based on an individual's membership in the following classes: sex, race, color, sexual orientation, gender identity, gender expression, religion, age, marital status, national origin, disability, genetic information, veteran status, and any other classes protected by state or federal law.



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Study Abroad & Outreach
1 University Circle
Macomb, IL 61455-1390

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Western Illinois University presents

TechVenturing: Robotics, 3D Printing and Drones

June 26-29, 2017 • Grades 7-12

TechVenturing: Robotics, 3D Printing and Drones

PROGRAM DESCRIPTION

Have you ever wondered how a 3D printer works and what you can create with one? Would you like to build your own robot? Learn about drones and see how they operate? This summer, Western Illinois University's (WIU) Office of Study Abroad and Outreach is partnering with Rafael Obregon, associate professor from the Department of Engineering Technology, and Chad Sperry, director of WIU's Geographic Information System (GIS) Center. Students will use GPS guided Unmanned Aerial Vehicles (UAV's/drones) from DJI and 3D Robotics and explore how UAV's use GPS to navigate in 3 dimensional space. UAV's will be used to view first person view (FPV) capture thermal (FLIR) and true color videos and photos, which can be used in mapping and the creation of 3D printed topographic maps using specialized software. Students will also learn about how UAV's are transforming many different disciplines, including finding missing persons, agriculture and even pizza deliveries! We will briefly discuss the laws and regulations to ensure safe and legal operations, as well as the future direction of this rapidly evolving technology! This program encourages students to venture into the world of technology and expand their creative horizons using a hands-on and technology driven approach. Join us this summer and get your engineering gears going!

ACTIVITIES WILL INCLUDE:

Students will participate in 3D printing and the development of a simple automated system or small robot formed with 3D printed parts and controlled by a computer. They will also explore what makes a drone work and learn about the technological advances and current applications.

PARTICIPATION CRITERIA

The program is open to students in grades 7-12 who are admitted on a first-come, first-served basis. Enrollment is limited to 16 students, so please register early.

MEET OUR INSTRUCTORS



Chad Sperry has served as director of the GIS Center since 2009. Under Sperry, the Center has completed GIS and GPS projects for federal, state and local entities, partnered with WIU faculty members on research projects and provided hands-on GIS and GPS training for Western's students. Prior to coming to Western, Sperry worked with the U.S. Army Corps of Engineers, Rock Island District, and was a GIS specialist with Klingender & Associates, P.C. in Quincy, IL. He earned his master's degree from Purdue University and his bachelor's degree from Western.



Rafael Obregon is an associate professor for WIU's Department of Engineering Technology. He is an internationally recognized expert in design and manufacturing and has over 30 years of experience as an engineer, manager and educator. Obregon has been principal investigator for the Department of Defense sponsored projects. He is a Certified Manufacturing Technologist by the Society of Manufacturing Engineers, serves as Engineering and Technology division chair for

the Illinois State Academy of Sciences and is member of the American Society of Engineering Educators and the Latin America and Caribbean Consortium

CHECK US OUT ON THE WEB!

For more information about "TechVenturing: Robotics, 3D Printing and Drones," check us out on the web at wiu.edu/sao/outreach/youth_enrichment/youthmain.php.

Registration – TechVenturing: Robotics, 3D Printing and Drones • June 26-29, 2017

Student Name _____

Address _____

City/State/Zip Code _____

Phone Number (include area code) _____ E-Mail _____

Age _____ Gender _____ Grade as of Jan. 2017 _____

Please make check payable to **Western Illinois University** or pay by credit card:

Visa MasterCard Discover

Card No. _____ Exp. Date _____ CV Code (3 digits) _____

Authorized Signature _____

Parent or Guardian

Parent or Guardian Signature _____

Parent or Guardian Name (printed) _____

Teacher or Academic Counselor

Teacher or Academic Counselor Name _____

School/City/State _____

Phone Number (include area code) _____

E-Mail _____

How did you hear about the program? _____
