

2017 Middle School Summer Engineering Technology Program

3D Printing with AutoCAD

Learn How to Design and Build 3D Printed Objects

Students will learn how to design and print several 3D objects including simple shapes and a Bionic Glove using a Computer Aided Design (CAD) program. Each student will work at their own computer terminal and learn powerful software tools including SolidWorks, Sketchup, and AutoCAD.

Offered: Week 1: June 12-16 (*Boca Campus*); Week 2: June 19-23 (*Boca Campus*);
and Week 3: June 26-30 (*Jupiter Campus*)

Instructor: Hongbo Su, Ph.D.

Schedule:

Day	Morning Session	Afternoon Session
Monday	<ul style="list-style-type: none"> ● Meet and Greet ● Overview of the engineering majors and activities planned for the week ● Tour of Labs in Engineering West Building ● Choose an item to 3D Print from thingiverse.com 	<ul style="list-style-type: none"> ● Object Construction Relationships ● Design objects using OpenSCAD ● Print your design
Tuesday	<ul style="list-style-type: none"> ● 3D printer setup and printing ● Print your 2nd Item from thingiverse.com 	<ul style="list-style-type: none"> ● Learn how to use Autodesk 123D Design at: www.tinkercad.com ● Design and print your design
Wednesday	<ul style="list-style-type: none"> ● Learn about available technologies & 3D printing equipment and supplies ● 3D printer setup and printer support and maintenance 	<ul style="list-style-type: none"> ● Learn how to use Sketchup ● Design and print your design
Thursday	<ul style="list-style-type: none"> ● Learn how to use SolidWorks ● Design and print your design 	<ul style="list-style-type: none"> ● Use your favorite CAD software ● Design a vehicle & print your design
Friday	<ul style="list-style-type: none"> ● Final printing of designs ● Assemble a Bionic Glove for children without a hand 	<ul style="list-style-type: none"> ● Engineering design judging ● Presentation of certificates