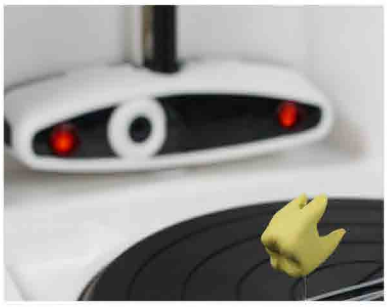
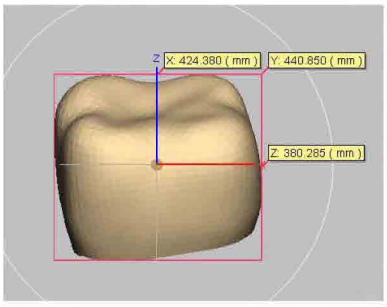
HealthScience Careers®

We've Created New Material

Biomedical Engineering 3D Scanning and Printing

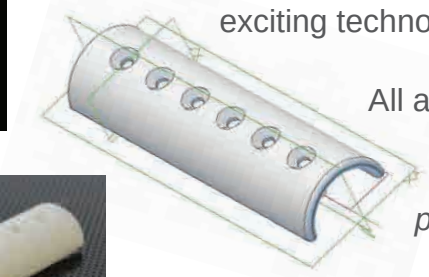




Biomedical Engineering 3D Activities

Bonus Activities Provided at No Charge

3D printing for medical applications includes using the technology for prosthetics, as well as for customization and personalization of equipment, drugs and medical products. Learn about this exciting technology in our new curriculum enhancements.



All activities listed below are included in Biomedical Engineering, including *the 3D printing of a skull section that precisely fits a craniotomy skull incision.*

Activities are also available within individual modules. If you already own a 3D scanner/printer, you can begin immediately.*

Medical Imaging

In the future, we can expect to see internal bone braces that will self-dissolve, alleviating the need to remove them at a later date.

In this activity, you will use the 3D printer to fabricate a model of a bone brace that could be used to repair a fracture.

Dentistry

Right now dentists are using 3D printing to make very accurate models of a patient's jaw so that more complicated dental appliances can be fitted, without the patient being in the dental chair.

In this activity, you will scan and then 3D print a tooth.

Speech Therapy

In this activity you will use the head model, in the Speech Therapy HCA, to make a soft mold of the ear canal. After making the mold, you will then use the 3D scanner to generate a hearing aid shell that can be printed in hard plastic with the 3D printer.

Sports Medicine

Braces and supports made from 3D printed carbon fiber can be extremely strong but very light.

To get a better understanding of how 3D printing can be used to assist in bracing an injury, you will print out a finger brace.

Therapeutic Services

One of the first things a therapist does after a finger injury has healed, is to measure the range of motion. To do this, the therapist uses a small tool called a goniometer.

In this activity you will print a custom-sized goniometer.

Veterinary Medicine

The use of 3D printing for animal prosthetics is becoming quite common. 3D printing is enabling many of our animal friends to lead normal lives.

In this activity, you will learn how this technology can affect the lives of pets and their owners and then print a prosthetic animal leg.

*HSC 3D Scanner/Printer Package: Stock no. 860250 $2,395.00

For more information, please contact your educational consultant.

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