

HIGH SCHOOL



OUTREACH PROGRAMS



Exploring Packaging
Online Workshop for High School Students

CBU
Gadomski School of Engineering

- Students can complete workshops at their own pace.
- Workshops cover such topics as:
 - packaging guidelines (including e-commerce)
 - materials
 - transport
 - design
 - sustainability
 - and testing equipment.

Each lesson includes lecture notes (PDF), video lecture (MP4), and online quiz. Students can earn a certificate of completion upon finishing the course.



ista -CERTIFIED
Packaging Lab Tours
for High School Students



The CBU Packaging Lab has been certified by the International Safe Transit Association (www.ista.org) as a commercial testing laboratory since 2009.

- Demonstrations included in the lab tour**
- Drop Test
 - Vibration Test
 - Compression Test
 - Incline Impact Test
- Tours are limited to 50 participants

Want to host a workshop at your school?

Contact, Dr. Pong Malasri
pong@cbu.edu for more

EAM

- Pong Malasri, *CPB, LPDP, CTP/II*
 Bob Moats, *CPLP Technologist*
 Ali Pourhashemi, *PhD*
- Henry Rhodes
 Larry Rutledge
 John Ventura, *PhD, PE*

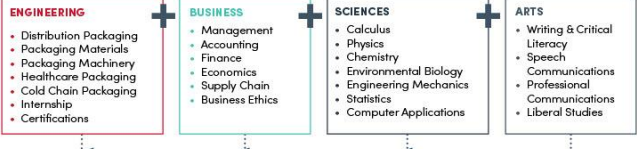
For more information, please contact **Pong Malasri** at pong@cbu.edu

THINK INSIDE THE BOX
Packaging @ CBU

PACKAGING is an interdisciplinary field, in which scientific and engineering principles are applied to develop and produce packages that contain, protect and preserve, transport, inform, and market products. It includes the study of products, packages, materials, containers, structures, methods, machinery, and transportation. It also combines such disciplines such as chemistry, physics, material science, machine design, industrial engineering, material handling, business management, and even liberal arts curricula.

CBU offers a Packaging minor, and a Bachelor of Science in Engineering Management with a Packaging Concentration at the undergraduate level as well as a Packaging Engineering Graduate Certificate for Master of Science in Engineering Management Majors.

INTEGRATIVE STUDIES



CHRISTIAN BROTHERS UNIVERSITY
650 East Parkway South • Memphis, Tennessee
cbu.edu/packaging

PACKAGING SUMMER RESEARCH PROGRAM*
** Invite only*

During the months of June and July CBU hosts select students to participate in a program in which they perform research projects simulating actual problems and solutions encountered in packaging scenarios. Samples of past projects are shown below.

INFRARED (OR THERMAL) CAMERA

Infrared cameras were used to measure the surface temperature of corrugated paperboard and PETG plastic sheets. Students studied the rate of temperature dissipation after the samples were removed from an environmental chamber.

PEEL STRENGTH TESTING

Studied the effect of temperature on peel strength between PETG plastic and Tyvek. PETG is commonly used for making medical device plastic trays, while Tyvek is used as lid for these trays.

SUSTAINABILITY PROJECT

Made paperboard from waste materials, including rice hulls and wine corks.

TEMPERATURE DISTRIBUTION

Studied the temperature distribution in an environmental chamber using portable temperature data loggers.

DUAL ENROLLMENT Packaging Courses @ CBU

CBU offers courses for credit to high school students under its Dual Enrollment Program at a discounted rate.

Two freshman packaging courses are available as Dual Enrollment courses:

- PKG 101. Introduction to Packaging**
Covers packaging guidelines, materials, sustainability, marketing, transport packaging, medical packaging, food packaging, and computer applications. (1 credit)
- PKG 102. Introduction to Packaging Design**
Covers branding, graphic elements, logo, box design, printing and decorating, design for sustainability, software tools, and innovative packaging design. (1 credit)

Both are 100% asynchronous online courses. Students study course materials at their own convenient time.

For more information about dual enrollment, contact Ms. Paula Bingham, Asst. Director of Pathway Programs at dual@cbu.edu or (901) 321-3265



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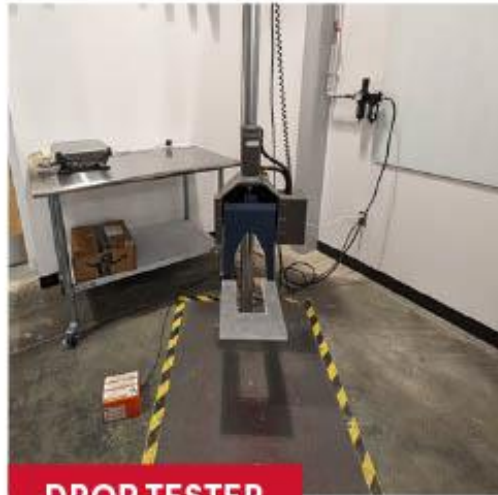
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Packaging Lab Tours

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VIBRATION TABLE



DROP TESTER



INCLINE IMPACT TESTER



COMPRESSION TESTER

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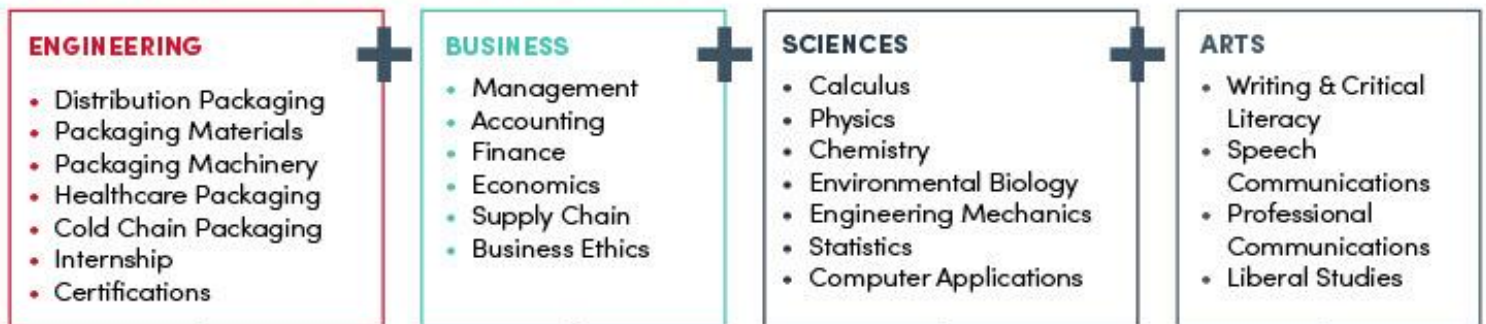
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