TECHNOLOGY EDUCATION CURRICULUM SUMMARY

The purpose of the Technology Education Curriculum Summary is to present an overview of the CAD II (Computer Aided Design and Drafting) curriculum. Parents are the intended audience of the Technology Education Curriculum Summary.

Technological Devices (reinforced):

- Knowledge and skills needed to operate a computer.
- Knowledge, understanding, and skills needed to access, evaluate, and use information.
- Knowledge and skills needed to operate a 3-D parametric solid modeling software.
- Knowledge and skills needed to select proper storage devices.
- Knowledge, understanding, and skills needed to produce multimedia presentations.

Theory of computer-aided engineering design:

- Advance design processes in 3-dimensional parametric solid modeling.
- Advance family table, symbolic relations with associative design parameters.
- Design parameters in biomechanics and organ printing engineering.
- Rapid prototyping technology in tissue morphogenesis (formation of the structure of an organism).
- Cell aggregation in organ printing engineering of a simple ring.
- Scaffold and non-scaffold structures in bio-rapid prototyping of a simple ring.
- Thermal reversible nano-gels.

Advanced product research and development:

- Advanced mechanical design in biomechanics and organ printing engineering.
- Environmental impacts of product engineering research and development.

Potential careers in modern biomechanics and organ printing engineering.