NEW PRODUCT DEVELOPMENT (NPD)

NPD 100 **3.0 UNITS**
Product Development in a Global Economy
Class Hours: 3.0 Lecture
Total Contact Hours: 54 Lecture

This course will introduce students to product development in a global economy. Students will learn about identifying customer needs, generating specifications, selecting concepts, selecting a fabrication or procurement process, generating a prototype, and testing the product. Emphasis will be placed on the lean product development system model and how to integrate suppliers, either local or global, into the product development process.
Transfer Credit: CSU

NPD 101 **3.0 UNITS**
Innovation Using Rapid Prototyping
Class Hours: 3.0 Lecture
Total Contact Hours: 54 Lecture

This course will introduce students to innovation using rapid prototyping methodologies. Students will learn how to produce parts that were created with computer assisted design programs. The focus of the class will be on feasibility, post-production, finishes, and expansion to low volume production methods. Plastic, composite, and metallic materials will be investigated for prototyping.
Transfer Credit: CSU

NPD 102 **3.0 UNITS**
Quality Systems for New Product Development
Class Hours: 3.0 Lecture
Total Contact Hours: 54 Lecture

This course is a survey of International Standards Organization (ISO) requirements for New Product Development. Students will learn about the relationship between quality systems during new product development and the importance of registration. Emphasis will be placed on how to implement ISO standards and recognized how auditors interpret them.
Transfer Credit: CSU

NPD 103 **3.0 UNITS**
Tooling and Materials for New Product Development
Class Hours: 3.0 Lecture
Total Contact Hours: 54 Lecture

This course will introduce students to the tooling and materials used in new product development. Students will learn about metallic and non-metallic materials used in the design of tooling. Emphasis will be placed on the lean development of tooling and how to integrate suppliers to reduce overall cost of product development.
Transfer Credit: CSU

NPD 105 **3.0 UNITS**
Mechatronics Integration In New Product Development
Class Hours: 3.0 Lecture
Total Contact Hours: 54 Lecture

This course will introduce students to electronic and electrical systems and their integration in new products. Students will learn about the role of electronics and electrical sub-systems in digital new product development. Emphasis will be placed on understanding routing, bill of materials, wire harnesses, inputs and outputs of printed circuit boards and integration in control boxes or design parts.
Transfer Credit: CSU

NPD 106 **2.0 UNITS**
Safety in New Product Development
Class Hours: 2.0 Lecture
Total Contact Hours: 36 Lecture

This course will introduce students to safety concerns in new product development. Students will learn about the type of hazards and their effects in product and process design. Emphasis will be placed on recognizing hazards that impact product development and how to devise controls to minimize risk and increase compliance to standards.
Transfer Credit: CSU

NPD 107 **2.0 UNITS**
Automation in New Product Development
Class Hours: 2.0 Lecture
Total Contact Hours: 36 Lecture

This course will introduce students to automation in new product development. Students will learn about the control logic needed in sequencing control and timers for new product and process design. Emphasis will also be placed on electro and pneumatic power, pressure, flow and speed control.
Transfer Credit: CSU