



## Engineering Design Technology

### Student Learning Outcomes

- 1 Communication – The student will demonstrate the ability to communicate effectively using written and/or oral communication.
- 2 Information Literacy – the student will recognize when information is needed and have the ability to locate, evaluate, and use effectively the needed information.
- 3 Problem Solving – the student will demonstrate the ability to analyze information and solve problems.
- 4 Workplace Skills – Demonstrates a mastery of workplace skills/soft skills, exhibits initiative, adapts to varied situations.

### Program Outcomes

- 1 Demonstrate general education concepts including effective reading, writing, speaking and listening skills
- 2 Demonstrate effective work ethics skills in a diverse global society
- 3 Identify different materials and processes by inspection
- 4 Apply geometry to geometric constructions
- 5 Demonstrate techniques of the design process
- 6 Independently interpret ideas into design documentation
- 7 Apply design technologies to engineering design principles to include Auto- Cad and CATIA

Course #	Course Title	Credits	Function
MCD 101	Introduction to CAD I	3	Technical Studies
MCD 102	Introduction to CAD II	2	Technical Studies
MCD 104	Blueprint Reading for Drafting	2	Technical Studies
MCD 106	Precision Measuring	2	Technical Studies
MCD 121	Descriptive Geometry	3	Technical Studies

**Spring**

Course #	Course Title	Credits	Function
MCD 115	Machine Drafting & Design	3	Technical Studies
MCD 124	Advanced AutoCAD	4	Technical Studies
MCD 137	Introduction to 3D Printing	2	Technical Studies
MCD	Technical Electives**	3	Elective
PDV 115	Work Ethics	2	General Studies

**Summer**

Course #	Course Title	Credits	Function
	Science Elective*	5	General Studies
MTH	Math Elective*	3	General Studies

**Fall**

Course #	Course Title	Credits	Function
CAT 101	CATIA Part Design & Sketcher	4	Technical Studies
CAT 105	CATIA Assembly Design	4	Technical Studies
ENG 101	Composition I*	3	General Studies
	Social Science Elective*	3	General Studies

**Spring**

Course #	Course Title	Credits	Function
CAT 103	CATIA 3D Tolerancing & Annotations	4	Technical Studies
CAT 110	CATIA Wireframe & Surfaces	4	Technical Studies
	Communication Elective*	3	General Studies
	Humanities Elective*	3	General Studies

**\*\* Technical Electives**

<b>Course #</b>	<b>Course Title</b>	<b>Credits</b>	<b>Function</b>
CAT 102	<b>CATIA Drafting</b>		Elective
CAT 115	<b>CATIA Prismatic Machining</b>		Elective
CAT 124	<b>CATIA Surface Machining</b>		Elective
MCD 130	<b>Basic Solidworks</b>		Elective
MCD 133	<b>Advanced Solidworks</b>		Elective
MCD 140	<b>Drafting Technology Internship</b>		Elective
MCD 156	<b>Intermediate Measuring Instruments</b>		Elective
MCD 201	<b>Geometric Dimensioning &amp; Tolerance</b>		Elective
MCD 210	<b>Advanced Measuring</b>		Elective

**\* Kansas Systemwide General Education**

**Fall**

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MCD 106	Precision Measuring	2	Technical Studies
MCD 121	Descriptive Geometry	3	Technical Studies

**Spring**

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MCD 201	Geometric Dimensioning & Tolerance		Elective

MCD 210	<b>Advanced Measuring</b>		Elective
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\* **Kansas Systemwide General Education**