ENGINEERING GRAPHICS AND ANIMATION

(Formerly Drafting and Design Technology)
(Wallace and Sparks Campuses and Easterling Correctional Facility)

DDT 124

DDT 127

DDT 128

DDT 144

WKO 106

(DDA)

Course

Area V:

DDT 150

DDT 155

DDT 212

DDT 213

DDT 216

DDT 222

ARCHITECTURAL

Basic Technical Drawing

Basic 3-D Modeling

Workplace Skills

Intermediate Technical Drawing

Design

Intermediate Computer-Aided Drafting and

Total Career and Technical Program Core

After completing the Core Technical Course Requirements,

GRAPHICS

Drawing for Residential Construction

Intermediate Architectural Drafting

Design of Structural Wood Members

Advanced Architectural Drawing

Civil Drafting, Plat Maps

Choose any 3 Elective Courses - 12 Semester Hours

Required Field of Concentration Courses

Theory of Residential Drawing and Design

students may choose from the following concentrations:

3

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3

3

3

3

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3

3

3

3

23-25

CONCENTRATION

Credit Hours

Engineering Graphics and Animation encompasses many divergent fields of study, including Aerospace, Architectural, Civil, Electrical, Mechanical, Piping, Structural, and Technical Illustrating. All of these fields focus on the ability to communicate by using a graphic language. Graphic communication is the ability to translate ideas and rough sketches into finished drawings that can be used to manufacture or assemble the desired product. These drawings are produced with the aid of specialty drawing and measuring instruments and the use of special computer programs. Students in this program learn basic drafting techniques as well as advanced topics within the fields of Architectural Design, Mechanical Design, and 3-D Design and Animation. Computer-Aided Drafting and Design (CAD) is an essential part of this program and is explored in depth.

Students who complete the prescribed degree curriculum will earn an associate in applied science degree in Engineering Graphics and Animation in one of the following concentrations: Architectural Graphics, Engineering Graphics, or 3-D Design and Animation. Students who complete the prescribed program certificate curriculum will earn a certificate in the chosen option. Admission is conditional and depends on the student's ability to perform the essential functions for this program. Reasonable accommodations are considered.

DEGREE CURRICULUM (Wallace and Sparks Campuses)

(Wallace and Sparks Campuses)		ACR 121	Principles of Electricity for HVAC/R	3	
			ACR 205	System Sizing and Air Distribution	3
Course	Credit	Hours	DDT 125		3
Area I:	Written and Oral Communications	6	DDT 125	1	3
ENG 101	English Composition I	3	DDT 231	\mathcal{E}	3
SPH 106	Fundamentals of Oral Communication OR		DDT 233	Intermediate 3-D Modeling	3
SPH 107	Fundamentals of Public Speaking	3	DDT 235	Specialized CAD	3
			DDT 236	Design Project	3
Area II:	Humanities and Fine Arts	3	DDT 237	Current Topics in CAD	3
	Humanities/Fine Arts Elective	3	DDT 260	Portfolio	3
			ELT 114	Residential Wiring Methods I	3
Area III:	Natural Sciences, Mathematics, and		ELT 115	Residential Wiring Methods II	3
	Computer Science	10		Total Concentration Credits	31
CIS 146	Microcomputer Applications	3		Total Credits for Degree	73-75
MTH 100	Intermediate College Algebra	3			
PHS 112	HINGTING BEING CARDEIL SCOINCEAN BAILDING		DE)		
7 11 1 M 1 1 1 1	College Chemistry I OR		Course		
CHM 111	č ,		Course	Credit	Hours
PHY 201	General Physics I OR		Course Area V:		Hours
_	č ,	4		Required Field of Concentration Courses	Hours 3
PHY 201 PHY 213	General Physics I OR General Physics I w/ Calculus	-	Area V:	Required Field of Concentration Courses Surface Development	
PHY 201	General Physics I OR General Physics I w/ Calculus History, Social and Behavioral Sciences	4 3	Area V: DDT 125	Required Field of Concentration Courses Surface Development Theory of Residential Drawing and Design	3
PHY 201 PHY 213	General Physics I OR General Physics I w/ Calculus History, Social and Behavioral Sciences History/Behavioral Science/Social	3	Area V: DDT 125 DDT 150	Required Field of Concentration Courses Surface Development Theory of Residential Drawing and Design	3
PHY 201 PHY 213	General Physics I OR General Physics I w/ Calculus History, Social and Behavioral Sciences	-	Area V: DDT 125 DDT 150 DDT 155	Required Field of Concentration Courses Surface Development Theory of Residential Drawing and Design Drawing for Residential Construction	3 3 4
PHY 201 PHY 213 Area IV:	General Physics I OR General Physics I w/ Calculus History, Social and Behavioral Sciences History/Behavioral Science/Social Science Elective	3	Area V: DDT 125 DDT 150 DDT 155 DDT 213	Required Field of Concentration Courses Surface Development Theory of Residential Drawing and Design Drawing for Residential Construction Civil Drafting, Plat Maps	3 3 4 3
PHY 201 PHY 213 Area IV:	General Physics I OR General Physics I w/ Calculus History, Social and Behavioral Sciences History/Behavioral Science/Social Science Elective Career and Technical Courses	3	Area V: DDT 125 DDT 150 DDT 155 DDT 213 DDT 216	Required Field of Concentration Courses Surface Development Theory of Residential Drawing and Design Drawing for Residential Construction Civil Drafting, Plat Maps Design of Structural Wood Members	3 3 4 3 3
PHY 201 PHY 213 Area IV: Area V: Required O	General Physics I OR General Physics I w/ Calculus History, Social and Behavioral Sciences History/Behavioral Science/Social Science Elective Career and Technical Courses rientation Courses	3	Area V: DDT 125 DDT 150 DDT 155 DDT 213 DDT 216 DDT 220	Required Field of Concentration Courses Surface Development Theory of Residential Drawing and Design Drawing for Residential Construction Civil Drafting, Plat Maps Design of Structural Wood Members	3 3 4 3 3
PHY 201 PHY 213 Area IV: Area V: Required O ORI 101	General Physics I OR General Physics I w/ Calculus History, Social and Behavioral Sciences History/Behavioral Science/Social Science Elective Career and Technical Courses Vientation Courses Orientation to College OR	3 3 51-53	Area V: DDT 125 DDT 150 DDT 155 DDT 213 DDT 216 DDT 220 Choose an ASE 101	Required Field of Concentration Courses Surface Development Theory of Residential Drawing and Design Drawing for Residential Construction Civil Drafting, Plat Maps Design of Structural Wood Members Advanced Technical Drawing y 3 Elective Courses – 12 Semester Hours	3 3 4 3 3 3
PHY 201 PHY 213 Area IV: Area V: Required O ORI 101 ORI 105	General Physics I OR General Physics I w/ Calculus History, Social and Behavioral Sciences History/Behavioral Science/Social Science Elective Career and Technical Courses Prientation Courses Orientation to College OR Orientation and Student Success	3 3 51-53	Area V: DDT 125 DDT 150 DDT 155 DDT 213 DDT 216 DDT 220 Choose an	Required Field of Concentration Courses Surface Development Theory of Residential Drawing and Design Drawing for Residential Construction Civil Drafting, Plat Maps Design of Structural Wood Members Advanced Technical Drawing y 3 Elective Courses – 12 Semester Hours	3 3 4 3 3 3 3
PHY 201 PHY 213 Area IV: Area V: Required O ORI 101 ORI 105 ORI 104	General Physics I OR General Physics I w/ Calculus History, Social and Behavioral Sciences History/Behavioral Science/Social Science Elective Career and Technical Courses rientation Courses Orientation to College OR Orientation and Student Success WorkKeys® Assessment and Advisement	3 3 51-53	Area V: DDT 125 DDT 150 DDT 155 DDT 213 DDT 216 DDT 220 Choose an ASE 101 ASE 112 DDT 225	Required Field of Concentration Courses Surface Development Theory of Residential Drawing and Design Drawing for Residential Construction Civil Drafting, Plat Maps Design of Structural Wood Members Advanced Technical Drawing y 3 Elective Courses – 12 Semester Hours Fundamentals of Automotive Technology Electrical Fundamentals Structural Steel Drafting	3 3 4 3 3 3 3 3
PHY 201 PHY 213 Area IV: Area V: Required O ORI 101 ORI 105 ORI 104 Required F	General Physics I OR General Physics I w/ Calculus History, Social and Behavioral Sciences History/Behavioral Science/Social Science Elective Career and Technical Courses rientation Courses Orientation to College OR Orientation and Student Success WorkKeys® Assessment and Advisement field of Concentration Courses	3 51-53	Area V: DDT 125 DDT 150 DDT 155 DDT 213 DDT 216 DDT 220 Choose an ASE 101 ASE 112 DDT 225 DDT 231	Required Field of Concentration Courses Surface Development Theory of Residential Drawing and Design Drawing for Residential Construction Civil Drafting, Plat Maps Design of Structural Wood Members Advanced Technical Drawing y 3 Elective Courses – 12 Semester Hours Fundamentals of Automotive Technology Electrical Fundamentals Structural Steel Drafting Advanced CAD	3 3 4 3 3 3 3 3 3
PHY 201 PHY 213 Area IV: Area V: Required O ORI 101 ORI 105 ORI 104 Required F DDT 104	General Physics I OR General Physics I w/ Calculus History, Social and Behavioral Sciences History/Behavioral Science/Social Science Elective Career and Technical Courses rientation Courses Orientation to College OR Orientation and Student Success WorkKeys® Assessment and Advisement field of Concentration Courses Basic Computer-Aided Drafting and Design	3 3 51-53	Area V: DDT 125 DDT 150 DDT 155 DDT 213 DDT 216 DDT 220 Choose an ASE 101 ASE 112 DDT 225 DDT 231 DDT 233	Required Field of Concentration Courses Surface Development Theory of Residential Drawing and Design Drawing for Residential Construction Civil Drafting, Plat Maps Design of Structural Wood Members Advanced Technical Drawing y 3 Elective Courses – 12 Semester Hours Fundamentals of Automotive Technology Electrical Fundamentals Structural Steel Drafting Advanced CAD Intermediate 3-D Modeling	3 3 4 3 3 3 3 3 3 3
PHY 201 PHY 213 Area IV: Area V: Required O ORI 101 ORI 105 ORI 104 Required F	General Physics I OR General Physics I w/ Calculus History, Social and Behavioral Sciences History/Behavioral Science/Social Science Elective Career and Technical Courses rientation Courses Orientation to College OR Orientation and Student Success WorkKeys® Assessment and Advisement field of Concentration Courses	3 51-53	Area V: DDT 125 DDT 150 DDT 155 DDT 213 DDT 216 DDT 220 Choose an ASE 101 ASE 112 DDT 225 DDT 231	Required Field of Concentration Courses Surface Development Theory of Residential Drawing and Design Drawing for Residential Construction Civil Drafting, Plat Maps Design of Structural Wood Members Advanced Technical Drawing y 3 Elective Courses – 12 Semester Hours Fundamentals of Automotive Technology Electrical Fundamentals Structural Steel Drafting Advanced CAD	3 3 4 3 3 3 3 3 3

DT 237 Current Topics in CAD DT 244 Advanced 3-D Modeling DT 260 Portfolio DT 117 Principles of Industrial Machanics		Engineering Graphics Associate of Applied Science Degree Suggested Course Sequence		
INT 117 Principles of Industrial Mechani INT 118 Fundamentals of Industrial Hydraulics and Pneumatics Total Concentration Credits Total Credits for Degree	3 3 31 73-75	FIRST SEME ORI 101 DDT 104 DDT 111 ENG 101	STER SECOND SEMESTER DDT 127 DDT 128 DDT 144 MTH 100	THIRD SEMESTER DDT 150 DDT 155 DDT 216 SPH 107
3-D DESIGN AND ANIMATION CONCEN	TRATION (DDD) Credit Hours	CIS 146 History/Social Behavioral Sci	Humanities/Fine Arts and Elective* ence Electives*	
Area V: Required Field of Concentration DDT 125 Surface Development DDT 233 Intermediate 3-D Modeling DDT 234 3-D Graphics and Animation DDT 235 Specialized CAD DDT 236 Design Project DDT 244 Advanced 3-D Modeling		FOURTH SEI DDT 125 DDT 125 DDT 213 Engineering G Elective* Engineering G Elective*	ORI 104 DDT 220 PHS 112 raphics Engineering Graphics Elective*	
Choose any 3 Elective Courses – 12 Semest CIS 251 C++ Programming Language	3	3-D Design and Animation Associate of Applied Science Degree		
CIS 207 Introduction to WEB Development DDT 150 Theory of Residential Drawing at DDT 155 Drawing for Residential Construction DDT 225 Structural Steel Drafting DDT 231 Advanced CAD DDT 237 Current Topics in CAD DDT 260 Portfolio Total Concentration Credits Total Credits for Degree	and Design 3	FOURTH SE	DDT 127 DDT 128 DDT 144 MTH 100 Humanities/Fine Arts and Elective* ence Electives*	THIRD SEMESTER DDT 235 SPH 107 3-D Design and Animation Elective* 3-D Design and Animation Elective*
Architectural Graphics Associate of Applied Science D Suggested Course Sequenc		DDT 124 DDT 125 DDT 234 3-D Design an		
FIRST SEMESTER SECOND SEMESTER THIRD SEMESTER ORI 101 DDT 127 DDT 150 DDT 104 DDT 128 DDT 155 DDT 111 DDT 144 DDT 216 ENG 101 MTH 100 SPH 107 CIS 145 Humanities/Fine Arts Elective* History/Social and Behavioral Science Electives*		111 except DD **DDT 150 an	d WKO 106	·
FOURTH SEMESTER FIFTH SEMESTER DDT 124 ORI 104		Engineering G		uuenis tuke DD1 104 joi
DDT 212 DDT 222 DDT 213 PHS 112 Architectural Graphics Architectural Graphics Elective* Elective*			ATE CURRICULUM d Wallace Campuses)	
Architectural Graphic Architectural Graphics Elective* Elective* WKO 106		Course Area I: COM 103	Written and Oral Communi Introductory Technical English	
		ENG 101 SPC 103 SPH 106	English Composition I Oral Communication Skills O Fundamentals of Oral Commu	R mication OR
		SPH 107	Fundamentals of Public Speak	
		Area III:	Natural Sciences, Mathemat Computer Science	6
		DPT 103 CIS 146 MAH 101	J 1	3

After completing the Core Technical Course Requirements, students may choose from the following concentrations:

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MTH 100 Intermediate College Algebra

-	Career and Technical Courses Prientation Courses Orientation to College OR Orientation to Student Success OR	32-34	DDT 128	Design Intermediate Technical Drawin Total Core Technical Credits	-	3 3 15
ORT 100	Orientation for Career Students	1-3	After comp	oleting the Core Technical C	ourse Requirem	ients,
ORI 104	WorkKeys Assessment and Advisement	1		y choose from the following co		
Program C		2		ICAL DRAFTING CONCENT	TRATION (MD	D)
DDT 104 DDT 111	Basic Computer-Aided Drafting and Design Fundamentals of Drafting and Design	3	DDT 125 DDT 131	Surface Development Machine Drafting Basics		3
221 111	Technology	3	DDT 131	Basic 3-D Modeling		3
DDT 124	Basic Technical Drawing	3	DDT 220	Advanced Technical Drawing		3
DDT 125	Surface Development	3		Total Concentration Credits		12
DDT 127	Intermediate Computer-Aided Drafting and Design	3		Total Credits for Program C	ertificate	27
DDT 128	Intermediate Technical Drawing	3				
DDT 144	Basic 3-D Modeling	3				
DDT 150	Theory of Residential Drawing and Design	3	ARCHITE	CTURAL AND RELATED TH	RADES	
DDT 155	Drawing for Residential Construction	4	DRAFTING CONCENTRATION (ATD)			
DDT 233	Intermediate 3-D Modeling	3	DDT 150	Theory of Residential Drawing	g and Design	3
	Total Core Credits	45-47	DDT 155	Drawing for Residential Const	ruction	4
ARCHITE	CTURAL GRAPHICS CONCENTRATION	(DDA)	DDT 213	Civil Drafting, Plat Maps		3
Course		Hours	DDT 225	Structural Steel Drafting Total Concentration Credits		3 13
Area V:	Required Field of Concentration Courses			Total Credits for Program C	ertificate	28
DDT 212	Intermediate Architectural Drafting	3		Total Cicuits for Frogram C	cremeate	20
DDT 216	Design of Structural Wood Members	3		Architectural Graphic	S	
DDT 222	Advanced Architectural Drawing	3		Certificate		
DDT 235	Specialized CAD	3		Suggested Course Seque	nce	
	Total Concentration Credits	12 57-59				
	Total Credits for Certificate	37-39	FIRST SEME ORT 100	STER SECOND SEMESTER DDT 127	THIRD SEMES	TER
ENGINEE	RING GRAPHICS CONCENTRATION (D	DE)	DDT 104	DDT 128	DDT 155	
Course		Hours	DDT 111 COM 103	DDT 144 MAH 101	DDT 216	
Area V:	Required Field of Concentration Courses		DPT 103	MAH 101		
DDT 213	Civil Drafting, Plat Maps	3				
DDT 220	Advanced Technical Drawing	3	FOURTH SEA SPC 103	MESTER FIFTH SEMESTER ORI 104		
DDT 225	Structural Steel Drafting	3	DDT 124	DDT 222		
DDT 236	Design Project Total Concentration Credits	3 12	DDT 125 DDT 212	DDT 233 DDT 235		
	Total Credits for Certificate	57-59	DD1 212	DDT 235		
	Total Civilis for Certificate	31-37				
3-D DESIG	N AND ANIMATION CONCENTRATION	(DDD)		Engineering Graphics	5	
Course		Hours		Certificate	** 0.0	
Area V:	Required Field of Concentration Courses			Suggested Course Seque	nce	
DDT 234	3-D Graphics and Animation	3	FIRST SEME	STER SECOND SEMESTER	THIRD SEMES	TER
DDT 235 DDT 236	Specialized CAD	3	ORT 100	DDT 127	DDT 150	
DDT 236 DDT 244	Design Project Advanced 3-D Modeling	3	DDT 104 DDT 111	DDT 128 DDT 144	DDT 155	
DD1 244	Total Concentration Credits	12	COM 103	MAH 101		
	Total Credits for Certificate	57-59	DPT 103			
			FOURTH SE	MESTER FIFTH SEMESTER		
	ERTIFICATE CURRICULUM		SPC 103	ORI 104		
(Easterling	Correctional Facility)		DDT 124 DDT 125	DDT 220 DDT 225		
Course	C	Hours	DDT 213	DDT 233		
<i>Course</i> Area V:	Career and Technical Courses	nours		DDT 236		
	e Requirements					
DDT 104	Basic Computer-Aided Drafting and Design	3				
DDT 111	Fundamentals of Drafting and Design					
	Technology	3				
DDT 124	Dagia Tashnigal Drawing	3				
DDT 121	Basic Technical Drawing Intermediate Computer-Aided Drafting and	3				

S-D Design and Animation Certificate Suggested Course Sequence						
FIRST SEMESTER ORT 100 DDT 104 DDT 111 COM 103 DPT 103	SECOND SEMESTER DDT 127 DDT 128 DDT 144 MAH 101	THIRD SEMESTER DDT 150 DDT 155				
FOURTH SEMESTER SPC 103 DDT 124 DDT 125 DDT 234	FIFTH SEMESTER ORI 104 DDT 233 DDT 235 DDT 244 DDT 236					

3 D Docion and Animation

Engineering Graphics and Animation Certificate Suggested Short Course Sequence

FIRST SEMESTER	SECOND SEMESTER	THIRD SEMESTER
DDT 104	DDT 144	DDT 213
DDT 111	DDT 220	DDT 225
DDT 124	DDT 131	DDT 150
DDT 127	DDT 125	DDT 155
DDT 128		

^{*}All DDT coursework except DDT 216 has a prerequisite of DDT 104 and DDT 111 except DDT 127 which requires only DDT 104.

^{**}DDT 150 and DDT 155 are co-requisites.