Richland Community College	2022-2023		Southern Illinois University Carbondale		
AS Welding Technology - Construction a	nd Pipe Speciality- 68 hrs		BS Industrial Management and Applied Enginee	ring (IMAE) - 120 hrs	
			University Core Curriculum (UCC) Capstone	Option - 30 hrs	
		Hrs			Hrs
			UNIV 101	Saluki Success	NA
ENGL 101	English Composition I	3	ENGL 101	English Composition I	T
	English Composition	5	ENGL 102	English Composition II	NA
COMM 101	Public Speaking	3	CMST 101	Intro to Oral Communication	T
		4			T
MATH 116*	College Algebra		MATH 108 (Required for BS degree)	College Algebra	T
	IAI SOCIAL SCIENCE	3		(See SIUC Equivalency Guide)	
			SOCIAL SCIENCE		3
			HUMANITIES		3
			HUMANITIES		NA
PHYS 101*	Intro to Physics I	4	PHYS 203/253A (Required for BS degree)	College Physics/Lab	T
			LIFE SCIENCE, GRP II	Students take 2 physics courses	NA
			FINE ARTS		3
			HUMAN HEALTH		NA
*Recommended to fulfill BS requirement			MULTICULTURAL		3
		17			12
Program Requirements			Program Requirements		
ENGT 105	Occupational Safety	3		·	
VELD 100	Welding Fundamentals	2	1		
VELD 101	Shielded Metal Arc Welding	4	1		
VELD 120	Intermediate Shielded Metal Arc Welding	3	1		
VELD 125	Gas Metal Arc/Flux Core Arc Welding (MIG)	2	-1		
VELD 130	Gas Tungsten Arc Welding	3	-		
VELD 135	Advanced Shielded Metal Arc Welding	3	-		
			The AAO desires in Welding Technology		have all
			The AAS degree in Welding Technology - Construction and Pipe Speciality as articulated fulfills the 22 hrs of		
VELD 140	Pipe Welding	4			
VELD 145	Welding Tools and Safety	3		 Construction and Pipe Speciality as articulated fulfills the 22 e BS degree in Industrial Management & Applied Engineering. 	
VELD 145 VELD 190	Welding Tools and Safety Maintenance Repair Welding	3 2			
VELD 145 VELD 190 VELD 202	Welding Tools and Safety Maintenance Repair Welding Welder Certification	3 2 2			
VELD 145 VELD 190 VELD 202 VELD 208	Welding Tools and Safety Maintenance Repair Welding Welder Certification Pipefitting Fundamentals	3 2 2 4			
VELD 145 VELD 190 VELD 202	Welding Tools and Safety Maintenance Repair Welding Welder Certification	3 2 2 4 4			
VELD 145 VELD 190 VELD 202 VELD 208	Welding Tools and Safety Maintenance Repair Welding Welder Certification Pipefitting Fundamentals	3 2 2 4			
VELD 145 VELD 190 VELD 202 VELD 208 VELD 215	Welding Tools and Safety Maintenance Repair Welding Welder Certification Pipefitting Fundamentals Pipefitting Applications	3 2 2 4 4			
VELD 145 VELD 190 VELD 202 VELD 208 VELD 215 VELD 215 VELD 243	Welding Tools and Safety Maintenance Repair Welding Welder Certification Pipefitting Fundamentals Pipefitting Applications Aluminum and Stainless Steel Welding GMAW/FCAW Pipe Welding	3 2 2 4 4 4			
VELD 145 VELD 190 VELD 202 VELD 208 VELD 215 VELD 243 VELD 243 VELD 245 VELD 290 or WELD 295	Welding Tools and Safety Maintenance Repair Welding Welder Certification Pipefitting Fundamentals Pipefitting Applications Aluminum and Stainless Steel Welding GMAW/FCAW Pipe Welding Work Exp Practicum & Seminar or Workplace Simulation/Project	3 2 2 4 4 4 3 3 3	technical electives required for the	e BS degree in Industrial Management & Applied Engineering.	
VELD 145 VELD 190 VELD 202 VELD 208 VELD 215 VELD 243 VELD 245	Welding Tools and Safety Maintenance Repair Welding Welder Certification Pipefitting Fundamentals Pipefitting Applications Aluminum and Stainless Steel Welding GMAW/FCAW Pipe Welding	3 2 2 4 4 4 3			
VELD 145 VELD 190 VELD 202 VELD 208 VELD 215 VELD 243 VELD 243 VELD 245 VELD 290 or WELD 295	Welding Tools and Safety Maintenance Repair Welding Welder Certification Pipefitting Fundamentals Pipefitting Applications Aluminum and Stainless Steel Welding GMAW/FCAW Pipe Welding Work Exp Practicum & Seminar or Workplace Simulation/Project	3 2 2 4 4 4 3 3 3 3	technical electives required for the	e BS degree in Industrial Management & Applied Engineering. Geometric Dimensioning & Tolerancing	T
VELD 145 VELD 190 VELD 202 VELD 208 VELD 215 VELD 243 VELD 243 VELD 245 VELD 290 or WELD 295	Welding Tools and Safety Maintenance Repair Welding Welder Certification Pipefitting Fundamentals Pipefitting Applications Aluminum and Stainless Steel Welding GMAW/FCAW Pipe Welding Work Exp Practicum & Seminar or Workplace Simulation/Project	3 2 2 4 4 4 3 3 3 3	technical electives required for the IMAE 110 (Required for BS degree) PHYS 203B/253B	e BS degree in Industrial Management & Applied Engineering. Geometric Dimensioning & Tolerancing College Physics/Lab	T4
VELD 145 VELD 190 VELD 202 VELD 208 VELD 215 VELD 243 VELD 243 VELD 245 VELD 290 or WELD 295	Welding Tools and Safety Maintenance Repair Welding Welder Certification Pipefitting Fundamentals Pipefitting Applications Aluminum and Stainless Steel Welding GMAW/FCAW Pipe Welding Work Exp Practicum & Seminar or Workplace Simulation/Project	3 2 2 4 4 4 3 3 3 3	IMAE 110 (Required for BS degree) PHYS 203B/253B IMAE 208	e BS degree in Industrial Management & Applied Engineering. Geometric Dimensioning & Tolerancing College Physics/Lab Manufacturing Processes	T 4 3
VELD 145 VELD 190 VELD 202 VELD 208 VELD 215 VELD 243 VELD 243 VELD 245 VELD 290 or WELD 295	Welding Tools and Safety Maintenance Repair Welding Welder Certification Pipefitting Fundamentals Pipefitting Applications Aluminum and Stainless Steel Welding GMAW/FCAW Pipe Welding Work Exp Practicum & Seminar or Workplace Simulation/Project	3 2 2 4 4 4 3 3 3 3	IMAE 110 (Required for BS degree) PHYS 203B/253B IMAE 208 IMAE 305	e BS degree in Industrial Management & Applied Engineering. Geometric Dimensioning & Tolerancing College Physics/Lab Manufacturing Processes Industrial Safety	T 4 3 3
VELD 145 VELD 190 VELD 202 VELD 208 VELD 215 VELD 243 VELD 243 VELD 245 VELD 290 or WELD 295	Welding Tools and Safety Maintenance Repair Welding Welder Certification Pipefitting Fundamentals Pipefitting Applications Aluminum and Stainless Steel Welding GMAW/FCAW Pipe Welding Work Exp Practicum & Seminar or Workplace Simulation/Project	3 2 2 4 4 4 3 3 3 3	technical electives required for the IMAE 110 (Required for BS degree) PHYS 203B/253B IMAE 208 IMAE 305 IMAE 305 IMAE 307 -or- MATH 140	e BS degree in Industrial Management & Applied Engineering. Geometric Dimensioning & Tolerancing College Physics/Lab Manufacturing Processes Industrial Safety Applied Calculus for Technology -or- Short Course in Calculus	T 4 3 3-4
VELD 145 VELD 190 VELD 202 VELD 208 VELD 215 VELD 243 VELD 243 VELD 245 VELD 290 or WELD 295	Welding Tools and Safety Maintenance Repair Welding Welder Certification Pipefitting Fundamentals Pipefitting Applications Aluminum and Stainless Steel Welding GMAW/FCAW Pipe Welding Work Exp Practicum & Seminar or Workplace Simulation/Project	3 2 2 4 4 4 3 3 3 3	technical electives required for the IMAE 110 (Required for BS degree) PHYS 203B/253B IMAE 208 IMAE 305 IMAE 307 -or- MATH 140 IMAE 340 -or- PSYC 323**	e BS degree in Industrial Management & Applied Engineering. Geometric Dimensioning & Tolerancing College Physics/Lab Manufacturing Processes Industrial Safety Applied Calculus for Technology -or- Short Course in Calculus Intro to Supervision -or- Organizational Psychology	T 4 3 3-4 3
VELD 145 VELD 190 VELD 202 VELD 208 VELD 215 VELD 243 VELD 243 VELD 245 VELD 290 or WELD 295	Welding Tools and Safety Maintenance Repair Welding Welder Certification Pipefitting Fundamentals Pipefitting Applications Aluminum and Stainless Steel Welding GMAW/FCAW Pipe Welding Work Exp Practicum & Seminar or Workplace Simulation/Project	3 2 2 4 4 4 3 3 3 3	technical electives required for the IMAE 110 (Required for BS degree) PHYS 203B/253B IMAE 208 IMAE 305 IMAE 307 - or- MATH 140 IMAE 340 - or- PSYC 323** IMAE 375	e BS degree in Industrial Management & Applied Engineering. Geometric Dimensioning & Tolerancing College Physics/Lab Manufacturing Processes Industrial Safety Applied Calculus for Technology -or- Short Course in Calculus Intro to Supervision -or- Organizational Psychology Production & Inventory Management	T 4 3 3.4 3 3 3
VELD 145 VELD 190 VELD 202 VELD 208 VELD 215 VELD 243 VELD 243 VELD 245 VELD 290 or WELD 295	Welding Tools and Safety Maintenance Repair Welding Welder Certification Pipefitting Fundamentals Pipefitting Applications Aluminum and Stainless Steel Welding GMAW/FCAW Pipe Welding Work Exp Practicum & Seminar or Workplace Simulation/Project	3 2 2 4 4 4 3 3 3 3	technical electives required for the iMAE 110 (Required for BS degree) PHYS 203B/253B IMAE 208 IMAE 305 IMAE 307 -or- MATH 140 IMAE 340 -or- PSYC 323** IMAE 375 IMAE 390	e BS degree in Industrial Management & Applied Engineering. Geometric Dimensioning & Tolerancing College Physics/Lab Manufacturing Processes Industrial Safety Applied Calculus for Technology -or- Short Course in Calculus Intro to Supervision -or- Organizational Psychology Production & Inventory Management Cost Estimating	T 4 3 3 4 3 3 4 3 3 3 3
VELD 145 VELD 190 VELD 202 VELD 208 VELD 215 VELD 243 VELD 243 VELD 245 VELD 290 or WELD 295	Welding Tools and Safety Maintenance Repair Welding Welder Certification Pipefitting Fundamentals Pipefitting Applications Aluminum and Stainless Steel Welding GMAW/FCAW Pipe Welding Work Exp Practicum & Seminar or Workplace Simulation/Project	3 2 2 4 4 4 3 3 3 3	technical electives required for the IMAE 110 (Required for BS degree) PHYS 203B/253B IMAE 208 IMAE 305 IMAE 305 IMAE 305 IMAE 307 -or- MATH 140 IMAE 340 -or- PSYC 323** IMAE 390 IMAE 390 IMAE 392	e BS degree in Industrial Management & Applied Engineering. Geometric Dimensioning & Tolerancing College Physics/Lab Manufacturing Processes Industrial Safety Applied Calculus for Technology -or- Short Course in Calculus Intro to Supervision -or- Organizational Psychology Production & Inventory Management Cost Estimating Facilities Planning & Workplace Design	T 4 3 3-4 3 3 3 3 3 3 3 3 3
VELD 145 VELD 190 VELD 202 VELD 208 VELD 215 VELD 243 VELD 243 VELD 245 VELD 290 or WELD 295	Welding Tools and Safety Maintenance Repair Welding Welder Certification Pipefitting Fundamentals Pipefitting Applications Aluminum and Stainless Steel Welding GMAW/FCAW Pipe Welding Work Exp Practicum & Seminar or Workplace Simulation/Project	3 2 2 4 4 4 3 3 3 3	technical electives required for the IMAE 110 (Required for BS degree) PHYS 203B/253B IMAE 208 IMAE 307 -or- MATH 140 IMAE 307 -or- PSYC 323** IMAE 375 IMAE 375 IMAE 392 IMAE 442	Geometric Dimensioning & Tolerancing College Physics/Lab Manufacturing Processes Industrial Safety Applied Calculus for Technology -or- Short Course in Calculus Intro to Supervision -or- Organizational Psychology Production & Inventory Management Cost Estimating Facilities Planning & Workplace Design Fundamentals of Leadership	T 4 3 3 4 3 3 3 3 3 3 3 3 3 3 3 3
VELD 145 VELD 190 VELD 202 VELD 208 VELD 215 VELD 243 VELD 243 VELD 245 VELD 290 or WELD 295	Welding Tools and Safety Maintenance Repair Welding Welder Certification Pipefitting Fundamentals Pipefitting Applications Aluminum and Stainless Steel Welding GMAW/FCAW Pipe Welding Work Exp Practicum & Seminar or Workplace Simulation/Project	3 2 2 4 4 4 3 3 3 3	technical electives required for the IMAE 110 (Required for BS degree) PHYS 203B/253B IMAE 208 IMAE 305 IMAE 307 or- MATH 140 IMAE 340 -or- PSYC 323** IMAE 390 IMAE 392 IMAE 442 IMAE 445	e BS degree in Industrial Management & Applied Engineering. Geometric Dimensioning & Tolerancing College Physics/Lab Manufacturing Processes Industrial Safety Applied Calculus for Technology -or- Short Course in Calculus Intro to Supervision -or- Organizational Psychology Production & Inventory Management Cost Estimating Facilities Planning & Workplace Design Fundamentals of Leadership Computer Integrated Manufacturing	T 4 3 3 4 3 3 3 3 3 3 3 3 3 3 3 3
VELD 145 VELD 190 VELD 202 VELD 208 VELD 215 VELD 243 VELD 243 VELD 245 VELD 290 or WELD 295	Welding Tools and Safety Maintenance Repair Welding Welder Certification Pipefitting Fundamentals Pipefitting Applications Aluminum and Stainless Steel Welding GMAW/FCAW Pipe Welding Work Exp Practicum & Seminar or Workplace Simulation/Project	3 2 2 4 4 4 3 3 3 3	IMAE 110 (Required for BS degree) IMAE 110 (Required for BS degree) PHYS 203B/253B IMAE 305 IMAE 305 IMAE 307 -or- MATH 140 IMAE 340 -or- PSYC 323** IMAE 375 IMAE 390 IMAE 392 IMAE 445 IMAE 450	Geometric Dimensioning & Tolerancing College Physics/Lab Manufacturing Processes Industrial Safety Applied Calculus for Technology -or- Short Course in Calculus Intro to Supervision -or- Organizational Psychology Production & Inventory Management Cost Estimating Facilities Planning & Workplace Design Fundamentals of Leadership Computer Integrated Manufacturing Project Management	T 4 3 3 4 3 3 3 3 3 3 3 3 3 3 3 3 3 3
VELD 145 VELD 190 VELD 202 VELD 208 VELD 215 VELD 243 VELD 243 VELD 245 VELD 290 or WELD 295	Welding Tools and Safety Maintenance Repair Welding Welder Certification Pipefitting Fundamentals Pipefitting Applications Aluminum and Stainless Steel Welding GMAW/FCAW Pipe Welding Work Exp Practicum & Seminar or Workplace Simulation/Project	3 2 2 4 4 4 3 3 3 3	IMAE 110 (Required for BS degree) PHYS 203B/253B IMAE 208 IMAE 305 IMAE 340 -or- PSYC 323** IMAE 390 IMAE 442 IMAE 445 IMAE 450 IMAE 465	Geometric Dimensioning & Tolerancing College Physics/Lab Manufacturing Processes Industrial Safety Applied Calculus for Technology -or- Short Course in Calculus Intro to Supervision -or- Organizational Psychology Production & Inventory Management Cost Estimating Facilities Planning & Workplace Design Fundamentals of Leadership Computer Integrated Manufacturing Project Management Lean Manufacturing	T 4 3 3 4 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
VELD 145 VELD 190 VELD 202 VELD 208 VELD 215 VELD 243 VELD 243 VELD 245 VELD 290 or WELD 295	Welding Tools and Safety Maintenance Repair Welding Welder Certification Pipefitting Fundamentals Pipefitting Applications Aluminum and Stainless Steel Welding GMAW/FCAW Pipe Welding Work Exp Practicum & Seminar or Workplace Simulation/Project	3 2 2 4 4 4 3 3 3 3	IMAE 110 (Required for BS degree) IMAE 110 (Required for BS degree) PHYS 203B/253B IMAE 305 IMAE 305 IMAE 307 -or- MATH 140 IMAE 340 -or- PSYC 323** IMAE 375 IMAE 390 IMAE 392 IMAE 445 IMAE 450	Geometric Dimensioning & Tolerancing College Physics/Lab Manufacturing Processes Industrial Safety Applied Calculus for Technology -or- Short Course in Calculus Intro to Supervision -or- Organizational Psychology Production & Inventory Management Cost Estimating Facilities Planning & Workplace Design Fundamentals of Leadership Computer Integrated Manufacturing Project Management	T 4 3 3 4 3 3 3 3 3 3 3 3 3 3 3 3 3 3
VELD 145 VELD 190 VELD 202 VELD 208 VELD 215 VELD 243 VELD 243 VELD 245 VELD 290 or WELD 295	Welding Tools and Safety Maintenance Repair Welding Welder Certification Pipefitting Fundamentals Pipefitting Applications Aluminum and Stainless Steel Welding GMAW/FCAW Pipe Welding Work Exp Practicum & Seminar or Workplace Simulation/Project	3 2 2 4 4 4 3 3 3 3	IMAE 110 (Required for BS degree) PHYS 203B/253B IMAE 208 IMAE 305 IMAE 340 -or- PSYC 323** IMAE 390 IMAE 442 IMAE 445 IMAE 450 IMAE 465	Geometric Dimensioning & Tolerancing College Physics/Lab Manufacturing Processes Industrial Safety Applied Calculus for Technology -or- Short Course in Calculus Intro to Supervision -or- Organizational Psychology Production & Inventory Management Cost Estimating Facilities Planning & Workplace Design Fundamentals of Leadership Computer Integrated Manufacturing Project Management Lean Manufacturing	T 4 3 3 4 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
VELD 145 VELD 190 VELD 202 VELD 208 VELD 215 VELD 243 VELD 243 VELD 245 VELD 290 or WELD 295	Welding Tools and Safety Maintenance Repair Welding Welder Certification Pipefitting Fundamentals Pipefitting Applications Aluminum and Stainless Steel Welding GMAW/FCAW Pipe Welding Work Exp Practicum & Seminar or Workplace Simulation/Project	3 2 2 4 4 4 3 3 3 3	IMAE 110 (Required for BS degree) IMAE 110 (Required for BS degree) PHYS 203B/253B IMAE 305 IMAE 307 -or- MATH 140 IMAE 307 -or- PSYC 323** IMAE 392 IMAE 392 IMAE 442 IMAE 455 IMAE 470A	e BS degree in Industrial Management & Applied Engineering. Geometric Dimensioning & Tolerancing College Physics/Lab Manufacturing Processes Industrial Safety Applied Calculus for Technology -or- Short Course in Calculus Intro to Supervision -or- Organizational Psychology Production & Inventory Management Cost Estimating Facilities Planning & Workplace Design Fundamentals of Leadership Computer Integrated Manufacturing Project Management Lean Manufacturing Six Sigma Green Belt I Six Sigma Green Belt II	T 4 3 3 4 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
VELD 145 VELD 190 VELD 202 VELD 208 VELD 215 VELD 243 VELD 243 VELD 245 VELD 290 or WELD 295	Welding Tools and Safety Maintenance Repair Welding Welder Certification Pipefitting Fundamentals Pipefitting Applications Aluminum and Stainless Steel Welding GMAW/FCAW Pipe Welding Work Exp Practicum & Seminar or Workplace Simulation/Project	3 2 2 4 4 4 3 3 3 3	IMAE 110 (Required for BS degree) PHYS 203B/253B IMAE 208 IMAE 307 -or- MATH 140 IMAE 307 -or- PSYC 323** IMAE 390 IMAE 390 IMAE 442 IMAE 445 IMAE 445 IMAE 445 IMAE 470B IMAE 476	Geometric Dimensioning & Tolerancing College Physics/Lab Manufacturing Processes Industrial Safety Applied Calculus for Technology -or- Short Course in Calculus Intro to Supervision -or- Organizational Psychology Production & Inventory Management Cost Estimating Facilities Planning & Workplace Design Fundamentals of Leadership Computer Integrated Manufacturing Project Management Lean Manufacturing Six Sigma Green Belt I Six Sigma Green Belt I Six Sigma Green Belt I	T 4 3 3 4 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
VELD 145 VELD 190 VELD 202 VELD 208 VELD 215 VELD 243 VELD 243 VELD 245 VELD 290 or WELD 295	Welding Tools and Safety Maintenance Repair Welding Welder Certification Pipefitting Fundamentals Pipefitting Applications Aluminum and Stainless Steel Welding GMAW/FCAW Pipe Welding Work Exp Practicum & Seminar or Workplace Simulation/Project	3 2 2 4 4 4 3 3 3 3	technical electives required for the iMAE 110 (Required for BS degree) PHYS 203B/253B IMAE 208 IMAE 305 IMAE 307 -or- MATH 140 IMAE 307 -or- PSYC 323** IMAE 375 IMAE 375 IMAE 390 IMAE 390 IMAE 420 IMAE 445 IMAE 445 IMAE 445 IMAE 470A IMAE 470B	e BS degree in Industrial Management & Applied Engineering. Geometric Dimensioning & Tolerancing College Physics/Lab Manufacturing Processes Industrial Safety Applied Calculus for Technology -or- Short Course in Calculus Intro to Supervision -or- Organizational Psychology Production & Inventory Management Cost Estimating Facilities Planning & Workplace Design Fundamentals of Leadership Computer Integrated Manufacturing Project Management Lean Manufacturing Six Sigma Green Belt I Six Sigma Green Belt II	T 4 3 3-4 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
VELD 145 VELD 190 VELD 202 VELD 208 VELD 215 VELD 243 VELD 243 VELD 245 VELD 290 or WELD 295	Welding Tools and Safety Maintenance Repair Welding Welder Certification Pipefitting Fundamentals Pipefitting Applications Aluminum and Stainless Steel Welding GMAW/FCAW Pipe Welding Work Exp Practicum & Seminar or Workplace Simulation/Project	3 2 2 4 4 4 3 3 3 3	IMAE 110 (Required for BS degree) PHYS 203B/253B IMAE 208 IMAE 307 -or- MATH 140 IMAE 307 -or- PSYC 323** IMAE 390 IMAE 390 IMAE 442 IMAE 445 IMAE 445 IMAE 445 IMAE 470B IMAE 476	Geometric Dimensioning & Tolerancing College Physics/Lab Manufacturing Processes Industrial Safety Applied Calculus for Technology -or- Short Course in Calculus Intro to Supervision -or- Organizational Psychology Production & Inventory Management Cost Estimating Facilities Planning & Workplace Design Fundamentals of Leadership Computer Integrated Manufacturing Project Management Lean Manufacturing Six Sigma Green Belt I Six Sigma Green Belt I Six Sigma Green Belt I	T 4 3 3 4 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
VELD 145 VELD 190 VELD 202 VELD 208 VELD 215 VELD 243 VELD 243 VELD 245 VELD 290 or WELD 295 ENGT 102	Welding Tools and Safety Maintenance Repair Welding Welder Certification Pipefitting Fundamentals Pipefitting Applications Aluminum and Stainless Steel Welding GMAW/FCAW Pipe Welding Work Exp Practicum & Seminar or Workplace Simulation/Project Blueprint Reading	3 2 4 4 4 3 3 3 52	technical electives required for the iMAE 110 (Required for BS degree) PHYS 203B/253B IMAE 208 IMAE 305 IMAE 307 -or- MATH 140 IMAE 307 -or- PSYC 323** IMAE 375 IMAE 375 IMAE 390 IMAE 390 IMAE 392 IMAE 445 IMAE 445 IMAE 445 IMAE 445 IMAE 470A IMAE 470B IMAE 470B IMAE 476 IMAE Electives	Geometric Dimensioning & Tolerancing College Physics/Lab Manufacturing Processes Industrial Safety Applied Calculus for Technology -or- Short Course in Calculus Intro to Supervision -or- Organizational Psychology Production & Inventory Management Cost Estimating Facilities Planning & Workplace Design Fundamentals of Leadership Computer Integrated Manufacturing Project Management Lean Manufacturing Six Sigma Green Belt I Six Sigma Green Belt I Six Sigma Green Belt I	T 4 3 3 3 4 3 3 3 3 3 3 3 3 3 3 3 3 3 3
VELD 145 VELD 190 VELD 202 VELD 208 VELD 215 VELD 243 VELD 243 VELD 245 VELD 290 or WELD 295	Welding Tools and Safety Maintenance Repair Welding Welder Certification Pipefitting Fundamentals Pipefitting Applications Aluminum and Stainless Steel Welding GMAW/FCAW Pipe Welding Work Exp Practicum & Seminar or Workplace Simulation/Project Blueprint Reading	3 2 2 4 4 4 3 3 3 3	IMAE 110 (Required for BS degree) PHYS 203B/253B IMAE 208 IMAE 307 -or- MATH 140 IMAE 307 -or- PSYC 323** IMAE 390 IMAE 390 IMAE 442 IMAE 445 IMAE 445 IMAE 445 IMAE 470B IMAE 476	Geometric Dimensioning & Tolerancing College Physics/Lab Manufacturing Processes Industrial Safety Applied Calculus for Technology -or- Short Course in Calculus Intro to Supervision -or- Organizational Psychology Production & Inventory Management Cost Estimating Facilities Planning & Workplace Design Fundamentals of Leadership Computer Integrated Manufacturing Project Management Lean Manufacturing Six Sigma Green Belt I Six Sigma Green Belt I Six Sigma Green Belt I	T 4 3 3-4 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3
VELD 145 VELD 190 VELD 202 VELD 208 VELD 215 VELD 243 VELD 243 VELD 245 VELD 290 or WELD 295 ENGT 102	Welding Tools and Safety Maintenance Repair Welding Welder Certification Pipefitting Fundamentals Pipefitting Applications Aluminum and Stainless Steel Welding GMAW/FCAW Pipe Welding Work Exp Practicum & Seminar or Workplace Simulation/Project Blueprint Reading	3 2 4 4 4 3 3 3 52	technical electives required for the iMAE 110 (Required for BS degree) PHYS 203B/253B IMAE 208 IMAE 305 IMAE 307 -or- MATH 140 IMAE 307 -or- PSYC 323** IMAE 375 IMAE 375 IMAE 390 IMAE 390 IMAE 392 IMAE 445 IMAE 445 IMAE 445 IMAE 445 IMAE 470A IMAE 470B IMAE 470B IMAE 476 IMAE Electives	Geometric Dimensioning & Tolerancing College Physics/Lab Manufacturing Processes Industrial Safety Applied Calculus for Technology -or- Short Course in Calculus Intro to Supervision -or- Organizational Psychology Production & Inventory Management Cost Estimating Facilities Planning & Workplace Design Fundamentals of Leadership Computer Integrated Manufacturing Project Management Lean Manufacturing Six Sigma Green Belt I Six Sigma Green Belt I Six Sigma Green Belt I	T 4 3 3 3 4 3 3 3 3 3 3 3 3 3 3 3 3 3 3