

CNC/Tool and Die Technologies - Academic Planner

Technical Diploma: 32-444-2 Campus: West Bend Curriculum for 2014-2015

Program Advisor:

	Col	urse		Hours / Week Total						Typically			
T/G	Subj	Num	Title	Lec	Lab	Other H	ours	Credits	Prerequisites and/or Corequisites	C	Offer	ed	Comments
			Note: Students must purchase tool kits for th	is progr	am.								
			Term 1:							S	F	SP	
			New Program Students	: Atten	d New	Student	Orien	itation an	d your Priority Registration Session				
	103	159	**Computer Literacy - Microsoft Office		2		36	1		x	x	x	**Institutional Requirement. May be eligible fo Advanced Standing.
т	439	301	Introduction to Basic Machining	1	1		36	1			x		Students must possess fundamental compute skills and have experience with Windows Operating System.
т	439	303	Basic Machining - Milling	1	3		72	2	Completion of or concurrent enrollment in 439-301 Introduction to Basic Machining		x		
т	439	305	Basic Machining - Drilling and Grinding	1	3		72	2	439-301 Introduction to Basic Machining; 439-303 Basic Machining - Milling		x		
T	439		2D AutoCAD Mold and Die Print Reading	4	-		72	2			x		
т	444	302	CNC Controls	1	3		72	2			x		Recommended: 103-189 Microsoft Windows 103-159 Computer Literacy - Microsoft Office
Т	444	333	Basics of Metrology	2			36	1	103-159 Computer Literacy - Microsoft Office		х		
т	444	350	Basic Programming	2	4		108	3	Completion of or concurrent enrollment in 103-159 Computer Literacy - Microsoft Office		x		
G	804	360	Occupational Mathematics 1	3			54	2			х	х	
	890	101	**College 101	2			36	2		х	х	х	**Institutional Requirement
			Total 1st Term Credits					18					
			Term 2:							S	F	SP	
Т	439	306	Basic Machining - Turning	1	3		72	2	439-301 Introduction to Basic Machining			х	
Т	444	310	Material Selection	2			36	1	890-101 College 101			х	
Т	444	311	Tooling and Workholding	1	3		72	2				х	
т	444	340	Beginning CAM - Mastercam	1	3		72	2	444-350 Basic Programming			x	Working knowledge of CNC programming language is desired.
т	444		Advanced CAM 2D	1	3		72	2	103-159 Computer Literacy - Microsoft Office; 444-340 Beginnning CAM - Mastercam			x	
Т	444	346	Design for 3D Machining	1	3		72	2	103-159 Computer Literacy - Microsoft Office			х	Experience with 2D desirable
т	444		CNC Machining Center Programming	2	2		72	2	444-350 Basic Programming				Working knowledge of CNC Programming ar CAM is helpful.
Т	444		CNC Machining Center Operation	2	2		72	2	444-355 CNC Machining Center Programming			Х	
G	804	361	Occupational Mathematics 2	3			54	2	804-360 Occupational Mathematics 1			х	
			Total 2nd Term Credits					17					

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Subj			Lec	Lat	o Other	er Hours	Credits	Prerequisites and/or Corequisites	Offere		Comments
		Term 3:							S	F	SP
130	304	Pierce and Die Making	2	1		108	3	439-305 Basic Machining – Drilling and Grinding; 439-306 Basic Machining – Turning; 444-342 Advanced CAM 2D; 444-355 CNC Machining Conter Operation		v	
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439			2			36	1			x	Restricted to program students. It is recommended that students take 444-313 Proo Manufacturing the semester after completing th course.
444		5 5 5	1			72	2	444-342 Advanced CAM 2D		х	
444			1	-		72	2			x	
444										x	
444										x	
			_	_				* *			
			-				17				
		Term 4:							S	F	SP
439			2	4		108	3	439-305 Basic Machining – Drilling and Grinding; 439-306 Basic Machining – Turning			x
439	339	Multi Cavity Mold Making*	2	4		108	3	439-334 Single Cavity Mold Making			x
444	313	Product Manufacturing		4		72	2	444-312 Product Engineering - Lean Manufacturing			 Restricted to program students. It is recommended that students take this course th semester after taking 444-312 Project Enginee x - Lean Manufacturing.
444	386	Advanced Machining Center*	2	2		72	2	444-355 CNC Machining Center Programming			x
444	391	Coordinate Measuring Machine	2	4		108	3	439-399 2D AutoCAD Mold and Die Print Reading; 804-361 Occupational Mathematics 2			x
444			2	2		72	2	444-385 Turning Center Programming			x
801	310	Occupational Communication	3			54	2			х	x
		Total 4th Term Credits					17				
		**The credits for 103-159 Computer Literac requirements.	y-Micr	osof	t Office	and 89	0-101 Col	lege 101 are Institutional Requirements for graduati	ion. Co	onsec	uently, they are not part of the program credit
		*Capstone Projects are the exit assessmer									
	439 439 444 444 444 444 444 439 439 439	439 324 439 329 444 312 444 343 444 344 444 375 444 385 804 362 439 334 439 339 444 313 444 313 444 391 444 394	Term 3: 439 324 Pierce and Die Making 439 329 Compound Die Making* 444 312 Product Engineering - Lean Manufacturing 444 343 Beginning CAM 3D 444 344 Advanced CAM 3D 444 375 Turning Center Operation 444 385 Turning Center Programming 804 362 Occupational Mathematics 3 Total 3rd Term Credits Term 4: Apply for Graduation when completing Ter 439 334 Single Cavity Mold Making 439 339 Multi Cavity Mold Making* 444 313 Product Manufacturing 444 386 Advanced Machining Center* 444 394 Advanced Turning Center* 401 310 Occupational Communication Total 4th Term Credits 414 Total Program Credits and Institutional Re	Term 3: 439 324 Pierce and Die Making 2 439 329 Compound Die Making* 2 444 312 Product Engineering - Lean Manufacturing 1 444 343 Beginning CAM 3D 1 444 343 Beginning CAM 3D 1 444 344 Advanced CAM 3D 1 444 375 Turning Center Operation 2 444 385 Turning Center Programming 2 804 362 Occupational Mathematics 3 3 Total 3rd Term Credits Term 4: Term 4: Apply for Graduation when completing Term 4 redits 439 334 Single Cavity Mold Making* 2 439 339 Multi Cavity Mold Making* 2 444 313 Product Manufacturing 4 444 386 Advanced Machining Center* 2 444 394 Advanced Turning Center* 2 444 394 Advanced Turning Center* 2 444 394 Advanced Turning Center	Term 3: 439 324 Pierce and Die Making 2 4 439 329 Compound Die Making* 2 4 444 312 Product Engineering - Lean Manufacturing 2 2 444 343 Beginning CAM 3D 1 3 444 344 Advanced CAM 3D 1 3 444 345 Turning Center Operation 2 2 444 385 Turning Center Programming 2 2 804 362 Occupational Mathematics 3 3 3 Total 3rd Term Credits Total 3rd Term 4: 1 3 Term 4: 444 313 Single Cavity Mold Making 2 4 439 339 Multi Cavity Mold Making* 2 4 444 313 Product Manufacturing 4 4 444 394 Advanced Machining Center* 2 2 444 394 Advanced Turning Center* 2 2 2 444 394 Advanced Turning	Term 3: 439 324 Pierce and Die Making 2 4 439 329 Compound Die Making* 2 4 444 312 Product Engineering - Lean Manufacturing 2 4 444 343 Beginning CAM 3D 1 3 1 444 343 Beginning CAM 3D 1 3 1 3 444 344 Advanced CAM 3D 1 3 1 3 444 375 Turning Center Operation 2 2 2 444 385 Turning Center Programming 2 2 2 804 362 Occupational Mathematics 3 3 3 1 1 7 Term 4: Term 4: 4 4 4 4 4 4 439 334 Single Cavity Mold Making 2 4 4 439 334 Single Cavity Mold Making* 2 4 4 444 313 Product Manufacturing 4 4 4 444	Harm 3: Term 3: 439 324 Pierce and Die Making 2 4 108 439 329 Compound Die Making* 2 4 108 444 312 Product Engineering - Lean Manufacturing 2 36 444 343 Beginning CAM 3D 1 3 72 444 344 Advanced CAM 3D 1 3 72 444 355 Turning Center Operation 2 2 72 804 362 Occupational Mathematics 3 3 54 Total 3rd Term Credits Total 3rd Term Credits Total 3rd Term 4: 108 439 334 Single Cavity Mold Making 2 4 108 439 339 Muti Cavity Mold Making* 2 4 108 439 339 Muti Cavity Mold Making*	Harm 3: Term 3: 439 324 Pierce and Die Making 2 4 108 3 439 329 Compound Die Making* 2 4 108 3 444 312 Product Engineering - Lean Manufacturing 2 36 1 444 343 Beginning CAM 3D 1 3 72 2 444 344 Advanced CAM 3D 1 3 72 2 444 345 Turning Center Operation 2 2 72 2 864 362 Occupational Mathematics 3 3 54 2 17 Term 4: Apply for Graduation when completing Term 4 registration. Happly for Graduation when completing Term 4 registration. 439 334 Single Cavity Mold Making* 2 4 108 3 439 334 Single Cavity Mold Making* 2 4 108 3 439 339 Multi Cavity Mold Making* 2 4 108 3 444 313 P	Term 3: A39-305 Basic Machining – Drilling and Grinding; 439-306 Basic Machining – Drilling and Grinding; 439-306 Basic Machining CAM 2D; 444-342 Advanced CAM 2D 444 434 434 348 Beginning CAM 3D 1 3 72 2 444-342 Advanced CAM 2D 444 312 Product Engineering - Lean Manufacturing 2 36 1 444 343 Beginning CAM 3D 1 3 72 2 444-342 Advanced CAM 2D 444 344 Advanced CAM 3D 1 3 72 2 444-343 Beginning CAM 3D 444 346 Advanced CAM 3D 1 3 72 2 444-350 Basic Programming 444 346 Advanced CAM 3D 1 3 72 2 444-350 Basic Programming 804 362 Occupational Mathematics 3 3 54 2 804-361 Occupational Mathematics 2 439 334 Single Cavity Mold Making 2 4 108 3 439-305 Basic Machining - Drilling and Grinding; <	Term 3: Jerm 3: <t< td=""><td>Image: Note of the second se</td></t<>	Image: Note of the second se

For a complete list of course descriptions for this program, please consult the College Catalog at http://www.morainepark.edu/MPTCCatalog.