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## 智能制造工程专业本科人才培养方案

080213T

**Intelligent Manufacturing Engineering**

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					下 Lab	Virtual Lab	Practi- cal Week		
192299139		Moral Education and Fundamentals of Law	40	40				25	1
192299029		Outline of Modern & Contemporary Chinese History	40	40				25	2
232299089		Basic Principles of Marxism	40	40				25	4
222299019		Introduction to Xi Jinping Thought on Socialism with Chinese Characteristics For a New Era	48	48				3	6
222299029		Introduction to Mao Zedong Thought and the Theoretical System of Socialism with Chinese Characteristics	40	40				25	5
192299059		Social Practice of Ideological and Political Theory Courses	32				32	2	3
192299069	1(下)	Current Foreign & Domestic Issues and Policy II	8	8				025	1
192299079	1( )	Current Foreign & Domestic Issues and Policy II	8	8				025	2
192299089	2(下)	Current Foreign & Domestic Issues and Policy III	8	8				025	3
192299099	2( )	Current Foreign & Domestic Issues and Policy III							

Course Category	Course Type	Course Code	Chinese Name of the Course	English Name of the Course	Total Course Hours	Course Hours Distribution				Extra-curricular Hours Distribution	Credit	Semester	Notes	
						Lecture	Practical							
							Lab	Virtual Lab	Practical Week					
<b>Subtotal</b>										<b>375</b>				
<b>Other Elective Courses</b>										<b>2</b>				
<b>Public Art Courses</b>										<b>2</b>				
<b>Subtotal</b>										<b>4</b>				
<b>Subtotal</b>										<b>415</b>				
Academic Fundamental Courses		23010170		Introduction To the Major of Intelligent Manufacturing Engineering	16	8			8	1	1			
		23010578		Computational Thinking	16	14		2		1	1			
		19219808	B)2	Higher Mathematics A(1)	80	80				5	1			
		19219807	B)	College Physics A(2)	96	96				6	2			
		19219913		Linear Algebra B	32	32				2	2			
		19219809		College Physics B	72	72				45	2			
		19210009		Engineering Chemistry	32	32				2	3			
		19219915		Probability Theory and Mathematical Statistics B	32	32				2	3			
		19210007		Calculation Method	32	24		8		2	3			
		23088789	C	C Language Programming	40	32		8		25	3			
		23011578	)2	Mechanical Drawing A(1)	48	48				3	1			
		23011579	)	Mechanical Drawing A(2)	40	40				25	2			
		19040009		Engineering Materials B	24	24				15	3			
		23088809		Theoretical Mechanics B	48	48				3	3			
		23088808		Mechanics of Materials B	48	48				3	4			
		23010188		Thermal Fluid Basics	32	28	4			2	4			
		23010878		Engineering Ethics	24	24				15	5			
		23010879		Project Management & Cost Analysis	32	32				2	6			
	<b>Subtotal</b>										<b>465</b>			
			23010162		Smart Factory Modeling and Simulation	24	20	4			15	5		
		23010161		Reality and Virtual Reality	16	12	4			1	5			
<b>Subtotal</b>										<b>1</b>				
<b>Subtotal</b>										<b>475</b>				

Course Category	Course Type	Course Code	Chinese Name of the Course	English Name of the Course	Total Course Hours	Course Hours Distribution				Extra-curricular Hours Distribution	Credit	Semester	Notes			
						Lecture	Practical									
							Lab	Virtual Lab	Practical Week							
Professional Education Courses	Professional Education Core Courses	230101069	B	Foundation of Mechanical Manufacturing A	48	48					3	4				
		230101029		Optimization Design and Finite Element Analysis	24	24						15	5			
		230101049		Technology and Application of Industrial Robot	16	16						1	5			
		230101089		Intelligent Production Line and Equipment Design	32	28	4					2	6			
		230101059		Digital Process and Fixture Design	24	24						15	6			
		190103319		Introduction to NC Technology and Machining Programming	40	28	8	4				25	6			
	<b>Subtotal</b>													115		
	Professional Education Compulsory Courses	190108119			Interchangeability and Tolerance Fit B	24	20	4				15	4			
		23089839			Electrician Technology	32	32					2	3			
		23089839			Electronic Technology	32	32					2	4			
		190198069			Mechanism Principle A	56	56					35	4			
		230116019	B		Mechanical Design A	56	56					35	5			
		230101079			Foundation of Intelligent Manufacturing Engineering	16	12	4				1	5			
		230106119			Mechanical Testing Technology and Control	32	32					2	5			
		230106129			Electromechanical Transmission and Control	32	32					2	6			
	<b>Subtotal</b>													175		
	<b>Total</b>													29		
		19088029			Military Training					3		2	1			
		23298019			Computer Ability Courses	16				1		1	7			
		192198089			College Physics Experiment	32		32				1	2			
230198089		B)2		Engineering Training A(1)					3		3	2				
230198079		B)		Engineering Training A(2)					2		2	3				
190198059				Experiment of Mechanical Principle	8		8				05	4				
190198049				Mechanical Design Experiment	8		8				05	5				
19088039				Experiment of Engineering Mechanics	8		8				025	4				
19088049		)2		Experiment of Electrician and Electronic Technology(1)	16		16				05	3				
19088059		)		Experiment of Electrician and Electronic Technology(2)	16		16				05	4				

Course Category	Course Type	Course Code	Chinese Name of the Course	English Name of the Course	Total Course Hours	Course Hours Distribution				Extra-curricular Hours Distribution	Credit	Semester	Notes
						Lecture	Practical						
							Lab	Virtual Lab	Practical Week				
Practical Education Courses	Practical Education Compulsory Courses	230101339		Experiment of Optimization Design and Finite Element Analysis	20		20				1.25	5	
		230101349		Industrial Robot Application	16		16				1	5	
		230117369		Electromechanical Transmission and Control Experiment	8		8				0.5	6	
		230101359		Experiment of Digital Process and Fixture Design	8		8				0.5	6	
		230101319		Comprehensive Training of Digital Design and Simulation					2		2	5	
		230116319		Integrated Course Design of Mechanical Design					2		2	5	
		230101369	)2	Integrated Practice of Intelligent Manufacturing Engineering(1)					25		25	6	
		230101379	)	Integrated Practice of Intelligent Manufacturing Engineering(2)					2		2	7	
		191088019		Labour Education in Practice	24					24	0	7	
		19108219		Production Practice of Intelligent Manufacturing Engineering					3		3	7	
		19108309		Scientific and Technological Innovation Practice Activities of the major of Intelligent Manufacturing Engineering					1		1	8	
		230101389	)	Graduation Design(Thesis) of Intelligent Manufacturing Engineering					12		12	8	
		<b>Subtotal</b>										<b>39</b>	
	Practical Education Optional Course	19108089		Comprehensive Practice of Industrial Robotics					1		1	6	<b>1 Optional 1 Credit</b>
		230101329		Comprehensive Practice of Smart Factory Modeling and Simulation					1		1	6	
		230117359		Mechanical Innovation Design Practice					1		1	6	
		230106349		Application Practice of Machine Vision					1		1	7	
		230106359		Application Practice of Artificial Intelligence					1		1	7	
		<b>Subtotal</b>										<b>1</b>	
	<b>Total</b>										<b>40</b>		

Course Category	Course Type	Course Code	Chinese Name of the Course	English Name of the Course	Total Course Hours	Course Hours Distribution				Extra-curricular Hours Distribution	Credit	Semester	Notes
						Lecture	Practical						
							Lab	Virtual Lab	Practical Week				
Individualized Development Courses	( ) Majors (director) optional courses	230101659		Intelligent Production Planning Management	12	12	4				1	7	1 Optional 1 Credit
		230101649		Computer-Aided Numerical Control Programming	16	8	2	6			1	7	
		230101639		Data Science and Big Data Analysis	16	12		4			1	7	
		230108329		Industrial Internet Technology	32	32					2	7	
		190101539		Pneumatic and Hydraulic Transmission	32	28	4				2	7	
		230108329		Experiment Design and Data Processing	32	32					2	7	
	Subtotal										1		
	Interdisciplinary Education Courses	230108089		Machine Vision	32	32					2	7	1 Optional 1 Credit
		230108049		Artificial Intelligence and Applications	32	32					2	7	
		230108619		Introduction to Smart Agriculture	32	32					2	7	
		Subtotal										1	
	Total										2		
	Total minimum graduation credits					160							

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Remarks: According to the demand of economic and social development for personnel training, if the teaching plan of undergraduate majors really needs to be adjusted, the teaching plan published by Xihua University Educational Administration System shall prevail.





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## 校内专业设置评议专家组意见表

<p>王瑞 张峰 陈广 曹德南</p> <p>曹德南 张峰 王瑞</p>		