

## 产品设计专业本科培养计划 (产品设计创新实验班)

### Undergraduate Program for Specialty in Product Design (Product Design Innovation Experimental Class)

#### 一、培养目标

##### I. Program Objective

本专业培养具备工业设计(含产品设计方向、展示设计方向)的基础理论、知识与应用能力,具有较高综合素质,德、智、体、美全面发展,能在企事业单位、专业设计部门、设计研究单位从事以创新设计为重点的工业产品设计、展示设计、信息设计的应用型高级专门人才。

This program aims to cultivate senior application-oriented professionals who possess basic theories and applied ability in industrial design field (including orientation of product design, exhibition design). The students shall have high comprehensive quality, integrated development in moral, intellectual, physical and aesthetic, and have the ability to undertake industrial product design, exhibition design and information design with an emphasis on innovative design in enterprises and institutions, professional design departments and design research departments.

#### 二、基本规格要求

##### II. Skills Profile

毕业生应获得以下几方面的知识和能力:

Students of this program will acquire:

##### (一) 知识结构

1. 具有较扎实的自然科学和艺术学科的基本知识,掌握本专业所需的人文社会科学、市场经济、管理、环保等基础知识。
2. 掌握设计素描、设计色彩与表现、计算机图形表达、工业设计史和人机工程学的基础知识,具有较强的表现技能、动手能力、美学鉴赏与创造能力及计算机应用能力。
3. 掌握产品设计方面的基本设计理论、设计方法,应用设计方面的系统专业知识。
4. 掌握产品结构、创新技术、产品研发和设计管理方面的基础知识,且了解一定的技术经济分析及现代企业运作管理方式。

##### (二) 能力结构

1. 具有从用户(或特殊用户)角度对现有产品进行使用性分析,对现有产品进行创新与升级或发掘新的需求的能力。
2. 具有针对明确的市场定位提出设计目标,确定设计理念并能够对方案进行初步评价的能力。
3. 具有较强的审美能力、技术应用能力、手绘表达能力、计算机运用能力、语言沟通能力和逻辑思维能力。
4. 具有良好的信息组织分析和团队协作能力,能学习和运用多学科的知识和方法创造性的提出设计解决方案与产品实现方案,具有较强的设计能力和实践能力。
5. 具有熟练运用相关的软件进行图形矢量制作和对图像后期处理的能力、进行一些较复杂产

品的建模并使模型反映出产品的确切形态、色彩和材质的渲染能力，和清晰表达信息产品的架构和交互模型的搭建的能力。

6. 具有对工艺进行可行性分析，设计与形态相关的结构，并与相关技术人员协调实施设计方案的能力。

7. 具有自主学习和终身学习的意识，有不断探索和适应社会经济发展的创新精神和创业能力。

### (三). 素质目标

1. 德智体美全面发展，具有较高的文化艺术修养、美学修养、良好的设计社会责任感和国际化视野。

2. 具备从事产品开发设计工作的基本业务素质、健康的身体素质、心理素质和乐观的人生态度。

3. 具有良好的团队合作精神，具有能够熟练运用多学科的知识和方法去创造性解决问题的专业素质。

#### (I) structure of knowledge

1. Have solid basic knowledge of natural science and art subjects. Master the requisite basics of humanities and social sciences, market economy, management, environmental protection and etc. in the field.

2. Master basics of design sketch, design painting and expression, computer graphic expression, history of industrial design and ergonomics. Have strong design presentation skills, practical ability, aesthetic appreciation and creativity, and computer application skills.

3. Develop professional skills, including building up systematic knowledge of basic design theory and design approach and understanding how this expertise can be applied to a range of professions.

4. Master basics of products structure, innovative technology, product development and design management, meanwhile, understand technical and economic analysis, management mode of modern enterprise.

#### (II) structure of ability

1. Have ability of innovating and upgrading the existing products or discovering new demands according to serviceability of existing products with perspective of user (or special user).

2. Have ability of proposing design goals from a clear market orientation, determining design ideas and conducting a preliminary evaluation of the former concepts.

3. Have strong ability of aesthetic, technical application, hand-painted expression, computer application, communication and logical thinking.

4. Have good ability of analyzing information and teamwork, be able to learn and use multidisciplinary knowledge and methods to provide solutions and implementation of design.

5. Be highly proficient in making graphics and image post-processing with appropriate softwares, building some complex models of products, rendering models to reflect the shape, color and material exactly, and expressing architecture of information and interactive models clearly.

6. Have the ability of analyzing the technology's feasibility, designing the structure which related to morphology, and coordinating the design solution with relevant technical staff.

7. Have the awareness of autonomic learning and lifelong learning, and have the ability of constantly exploring, entrepreneurship and innovation which adapting to the social and economic Development.

#### (III) aim of quality

1. Integrated develop in moral, intellectual, physical and aesthetic, and have a high cultural,

artistic and aesthetic accomplishment, responsibility of design and international vision.

2. Have professional quality, healthy body and mentality, an optimistic attitude toward life in product design and development work.

3. Have good spirit of teamwork, professional quality of solving problem creatively and expertly by multidisciplinary knowledge and methods.

### 三、培养特色

#### III. Program Highlights

产品设计专业是艺术与技术的结合，本专业通过大量的设计实践，培养学生创造能力、审美能力及设计表现能力。

Product design as a combination of art and technology, cultivate students' creative ability, aesthetic ability and design ability through a lot of design practice.

### 四、主干学科

#### IV. Main Disciplines

产品设计 Products Design、展示设计 Exhibition Design

### 五、学制与学位

#### V. Program Length and Degree

修业年限：四年

Duration：4 years

授予学位：艺术学学士

Degrees Conferred：Bachelor of Arts

### 六、学时与学分

#### VI. Credits Hours and Units

完成学业最低课内学分（含课程体系与集中性实践教学环节）要求：178 学分

Minimum Credits of Curricular (Comprising course system and intensified internship practical training)：178 credits

其中，专业基础课程、专业核心课程学分不允许用其他课程学分进行学分冲抵和替代。

Major-related basic courses and core courses cannot be covered using credits from other courses in the program.

完成学业最低课外学分要求：5 学分。

Minimum Extracurricular Credits：5 credits.

#### 1. 课程体系学时与学分

##### Course Credits Hours and Units

课程类别		课程性质	学时/学分	占课程体系学分比例 (%)
素质教育通识课程		必修	544/30	18.7
		选修	160/10	6.2
学科基础课程		必修	952/59.5	37.1
专业课程	专业核心课程	必修	304/19	11.8
	专业选修课程	选修	672/42	26.2
合计			2632/160.5	100

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Course Type		Required /Elective	Hrs/Crs	Percentage (%)
Essential-qualities-oriented Education General Courses		Required	544/30	18.7
		Elective	160/10	6.2
Discipline-related General Courses		Required	952/59.5	37.1
Major-specific courses	Core	Required	304/19	11.8
	Electives	Required	672/42	26.2
Total			2632/160.5	100

2. 集中性实践教学环节周数与学分

Practicum Credits

实践教学环节名称	课程性质	周数/学分	占实践教学环节学分比例 (%)
军事训练	必修	2/1	5.7
公益劳动	必修	1/0.5	2.9
金工实习	必修	2/1	5.7
生产实习	必修	4/2	11.4
专业社会实践	必修	1/0.5	2.9
写生实习	必修	2/1	5.7
创新设计实践(一)	必修	2/1	5.7
创新设计实践(二)	必修	7/3.5	20
毕业设计	必修	14/7	40
合计		35/17.5	100

Course Title	Required/elective	Weeks/Credits	Percentage (%)
Military Training (two weeks)	Required	2/1	5.7
Laboring for Public Benefit (one week)	Required	1/0.5	2.9
Metal Working Practice (three weeks)	Required	2/1	5.7
Engineering Internship (four weeks)	Required	4/2	11.4
Professional Social Practice (one week)	Required	1/0.5	2.9
Sketch Practice (two weeks)	Required	2/1	5.7
Innovation Design Practice(一)	Required	2/1	5.7
Innovation Design Practice(一)	Required	7/3.5	20
Undergraduate Thesis (fourteen weeks)	Required	14/7	40
Total		35/17.5	100

3. 课外学分

Extracurricular Credits

序号	课外活动和	课外活动和社会实践的要求		课外学分
1	社会实践活动	提交社会调查报告		2
		个人被校团委或团省委评为社会实践活动积极分子者,集体被校团委或团省委评为优秀社会实践队者		2
2	英语及计算机考试	全国大学英语六级考试	获六级证书者	2
		托福考试	达 90 分以上者	3
		雅思考试	达 6.5 分以上者	3
		GRE 考试	达 300 分以上者	3
		全国计算机等级考试	获二级以上证书者	2
		全国计算机软件资格、水平考试	获程序员证书者	2
获高级程序员证书者	3			
获系统分析员证书者	4			
3	竞赛	校级	获一等奖者	3
			获二等奖者	2
			获三等奖者	1

续表

序号	课外活动和	课外活动和社会实践的要求		课外学分
		省级	获一等奖者	4
			获二等奖者	3
			获三等奖者	2
		全国	获一等奖者	6
			获二等奖者	4
			获三等奖者	3
4	论文	在全国性刊物发表论文		每篇论文 2~3
5	科研	视参与科研项目时间与科研能力		每项 1~3

注：参加校体育运动会获第一名、第二名者与校级一等奖等同，获第三名至第五名者与校级二等奖等同，获第六至第八名者与校级三等奖等同。竞赛类至少 2 学分。

No.	Extracurricular Activities and Social Practice	Requirements		Extracurricular Credits
1	Activities of Social Practice	Submit report and pass oral defense		2
		Entitled as Activist by the Communist Youth League of HUST or Hubei Province; Membership of the group which is entitled as Excellent Social Practice Group by the Communist Youth League of HUST or Hubei Province		2
2	Examinations in English and Computer	CET-6	Win certificate	2
		TOEFL	Score more than 90	3
		IELTS	Score more than 6.5	3
		GRE	Score more than 300	3
		National Computer Rank Examination	Win certificate of Band-2 or higher	2
		National Computer Software Qualification	Win certificate of programmer	2
Win certificate of Advanced Programmer	3			
Win certificate of System Analyst	4			
3	University Level	Win first prize	3	
		Win second prize	2	
		Win third prize	1	
	Provincial Level	Win first prize	4	
		Win second prize	3	
		Win third prize	2	
	National Level	Win first prize	6	
		Win second prize	4	
		Win third prize	3	
4	Thesis	Published in national-level journals	Per piece	2~3
5	Scientific Research	Depending on both the time spent in and ability demonstrated in scientific research project	Each item	1~3

Note: In HUST Sports Meeting, the first and the second prize, the third to the fifth prize, and the sixth prize to the eighth prize are deemed respectively the first prize, the second prize and the third prize of university level.

## 七、主要课程

### VII. Main Courses

设计素描 Design Sketch、设计初步 Preliminary design、设计基础 Foundation of Design、人机工程学 Ergonomics、产品与服务开发 Development of Product and Service、快题设计 Sketch Design Presentation、产品设计 Product Design、展示设计 Exhibition Design、视觉传达设计 Visual

Communication and Format Design、用户研究与交互设计 User Research and Interaction Design、信息建构 Information Architecture、界面设计 Interface Design。

八、主要实践教学环节（含专业实验）

VIII. Practicum Module (Experiments Included)

专业社会实践 Professional Social Practice、写生实习 Sketch Practice、生产实习 Engineering Internship、人机工学实验 Exp. Of Ergonomics、创新设计实践 Innovation Design Practice、毕业设计（论文） Undergraduate Thesis

九、教学进程计划表

IX. Course Schedule

院（系）：机械科学与工程学院

专业：产品设计

School (Department) : School of Mechanical Science & Engineering

Specialty : Product Design

课程类别 course type	课程性质 required/ elective	课程代码 course code	课程名称 course name	学时 hrs	学分 crs	其中 Including		设置学期 semester
						实验 exp.	上机 operation	
素质教育通识课程 Essential-qualities-oriented Education General Courses	必修 Required	0301901	思想道德修养与法律基础 Morals & Ethics & Fundamentals of Law	48	3			1
	必修 Required	0100741	形势与政策 Situation and Policy	32	2			5-7
	必修 Required	0100721	中国近现代史纲要 Survey of Modern Chinese History	48	3			3
	必修 Required	0100732	马克思主义基本原理 Basic Theory of Marxism	64	4			4
	必修 Required	0100321	毛泽东思想和中国特色社会主义理论体系概论 General Introduction to Mao Zedong Thought and Socialist Theory with Chinese Characteristics	32	2			5-7
	必修 Required	0510071	中国语文 Chinese	32	2			1
	必修 Required	0508443	综合英语（一） Comprehensive English(I)	56	3.5			1
	必修 Required	0508463	综合英语（二） Comprehensive English(II)	56	3.5			2
	必修 Required	0400111	大学体育（一） Physical Education( I )	32	1			1
	必修 Required	0400121	大学体育（二） Physical Education( II )	32	1			2
	必修 Required	0400131	大学体育（三） Physical Education(III)	32	1			3
	必修 Required	0400141	大学体育（四） Physical Education(IV)	32	1			4
	必修 Required	1100011	军事理论 Military Theory	16	1			2-7
	必修 Required	0701732	科学思维与研究方法 Method of Scientific Thinking and Research	16	1			2
	必修 Required	0833031	工程导论 Introduction of Engineering	16	1			2

续表

课程类别 course type	课程性质 required/ elective	课程代码 course code	课程名称 course name	学时 hrs	学分 crs	其中 Including		设置学期 semester
						实验 exp.	上机 operation	
			自然科学类选修课程 Electives in Natural Science	96	6			
			人文社科类选修课程 Electives in Humanities and Social Science	64	4			
			学科基础课程 Basic Courses of Disciplines	952	59.5			
学科基础课程 Discipline-related courses	必修 Required	0501141	设计概论 Introduction to Design	24	1.5			1
	必修 Required	0515285	设计素描（一） Design Sketch( I )	40	2.5			1
	必修 Required	0833552	设计基础（一） Foundation of Design( I )	64	4			1
	必修 Required	0815313	设计色彩（一） Design Painting( I )	40	2.5			1
	必修 Required	0815295	设计素描（二） Design Sketch(II)	40	2.5			2
	必修 Required	0833561	设计基础（二） Foundation of Design(II)	64	4			2
	必修 Required	0815323	设计色彩（二） Color Design(II)	40	2.5			2
	必修 Required	0844851	设计美学 Aesthetics of design	40	2.5			2
	必修 Required	0801665	工程制图（一） Engineering Drafting ( I )	40	2.5		8	2
	必修 Required	0511911	设计初步（一） Preliminary Design( I )	56	3.5			2
	必修 Required	0507252	室内设计（一） Interior Design( I )	56	3.5			3
	必修 Required	0511921	设计初步（二） Preliminary Design(II)	56	3.5			3
	必修 Required	0501121	阴影与透视（二） Perspective and Shadow(II)	40	2.5			3
	必修 Required	0501152	表现技法 Visualization Skills	56	3.5			3
	必修 Required	0844861	产品形态与语义设计 Product Form and Semantic Design	56	3.5			3
	必修 Required	0501202	工业设计简史 Brief History of ID	32	2			3
	必修 Required	0827991	设计科学基础 Introduction to Science of Design	32	2			4
必修 Required	0843112	视觉传达设计 Visual Communication and Format Design	56	3.5			4	

续表

课程类别 course type	课程性质 required/ elective	课程代码 course code	课程名称 course name	学时 hrs	学分 crs	其中 Including		设置学期 semester
						实验 exp.	上机 operation	
	必修 Required	0821291	造型材料与工艺 Material Technology for Form	40	2.5			4
	必修 Required	0501192	模型 Product Modeling	40	2.5	20		5
	必修 Required	0507241	快题设计（一） Sketch Design Presentation( I )	40	2.5			5
专业课程·专业核心课程 Major-specific Core Courses	必修 Required	0844871	用户研究与交互设计（一） User Research and Interaction Design ( I )	40	2.5			3
	必修 Required	0502121	人机工程学 Ergonomics	48	3	8		4
	必修 Required	0501247	产品设计（一） Product Design( I )	56	3.5			4
	必修 Required	0507232	展示设计（一） Exhibition Design ( I )	56	3.5			4
	必修 Required	0818781	界面设计 Interface Design	56	3.5	4		5
	必修 Required	0844801	设计工程基础 Introduction to engineering Technology of Design	48	3	8		5
专业课程·专业选修课程 Major-specific Electives	选修 Elective	0512412	信息建构 Information Architecture	40	2.5			4
	选修 Elective	0500542	摄影 Photographing	32	2	8		5
	选修 Elective	0514091	工业设计专业英语 English for Industrial Design	32	2			5
	选修 Elective	0844881	用户研究与交互设计（二） User Research and Interaction Design ( II )	56	3.5	4		5
	选修 Elective	0501249	产品设计（二） Product Design ( II )	56	3.5	8		5
	选修 Elective	0501321	雕塑与陶艺 Sculpture & ceramic art	40	2.5			6
	选修 Elective	0510731	快题设计（二） Sketch Design Presentation( II )	40	2.5			6
	选修 Elective	0844891	民间工艺传承与创新设计 Folk Craft Inheritance and Innovation Design	56	3.5			6
	选修 Elective	0844831	信息可视化 Information visualization;	56	3.5			6
	选修 Elective	0844901	产品与服务开发 Development of Product and Service	56	3.5			6
	选修 Elective	0844911	通用设计 Universal Design	56	3.5			7
	选修 Elective	0844921	设计伦理 Design Ethics	16	1			7



续表

课程类别 course type	课程性质 required/ elective	课程代码 course code	课程名称 course name	学时 hrs	学分 crs	其中 Including		设置学期 semester
						实验 exp.	上机 operation	
	选修 Elective	0501361	工业设计管理 Management of Industrial Design	24	1.5			7
	选修 Elective	0506091	创新设计 Innovation Design	32	2			7
	选修 Elective	0511942	专题设计 Design with Subjects	56	3.5			7
	选修 Elective	0512401	设计创意与知识产权战略 Design Innovation and Intellectual Property Strategy	24	1.5			7
实践环节 Practical Training Items	必修 Required	1300013	军事训练 Military Training	2w	1			1
	必修 Required	1300486	专业社会实践 Professional Social Practice	1w	0.5			2
	必修 Required	1300524	写生实习 Sketch Practice	2w	1			2
	必修 Required	1302331	金工实习 Industrial Practice	2w	1			3
	必修 Required	1306571	创新设计实践（一） Innovation Design Practice ( I )	2w	1			5
	必修 Required	1327694	生产实习 Engineering Internship ( I )	4w	2			6
	必修 Required	1300024	公益劳动 Voluntary Labor	1w	0.5			7
	必修 Required	1306581	创新设计实践（二） Innovation Design Practice ( II )	7w	3.5			7
	必修 Required	130004f	毕业设计 Undergraduate Thesis	14w	7			8