哈尔滨工业大学深圳国际设计学院

Shenzhen International School of Design,

Harbin Institute of Technology

工业设计专业本科培养方案与课程体系

Curricula Program for Industrial Design (Bachelor)

（评审稿）

（Draft For Review）

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工业设计专业本科培养方案

Curricula Program for Industrial Design (Bachelor)

1 培养目标 Learning Objective

工业设计专业培养具备工业产品设计相关领域系统知识，掌握相关理论和方法，具有全球化视野、强烈的责任意识、科学的理性精神、领先的审美判断，掌握相应的设计思维、表达、沟通和管理技能，能具备自主创业能力，能在国际化和跨文化语境下，从事设计研发、推动专业发展、承担设计教育、相关研究工作的杰出人才。

The Industrial Design major aims to cultivate elites with systematic professional knowledge, good understanding of design theory and methodology, has global perspective, a strong sense of responsibility, scientific rational spirit, advanced aesthetic judgement. Student will also have design thinking and management skills, the ability to express, communicate and. Entrepreneurship ability will also be fostered , and student will be able to engage in design research and development, promoting professional development, undertaking design education and related research work in an international and cross-cultural context.

2 培养要求 Learning Outcome

毕业生应掌握或获得以下 9 个方面的知识和能力：

1. 拥有优良的道德品质，树立正确的人生观、世界观和价值观，具备强烈的服务社会意识、责任意识及创新意识、法律意识、诚信意识和团队合作精神，具有良好的身体和心理素质，具备独立思考能力和对形式美学表达的信心。

2. 掌握数学与自然科学等基础知识，并能够用于解决工业设计领域问题。

3. 掌握工业设计理论、背景和方法，了解在创新和设计领域内进行复杂方案设计所必须的当代最新知识、技能和技术，能够针对工业设计问题，开发、选择与使用恰当的技术、资源、现代工程工具和信息技术工具；设计开发创新解决方案，掌握一定的创新创业基础技能。

4. 具备掌握文献检索、设计调查、数据分析等基本技能及研究报告、论文撰写基本

规范，具备较强的创意分析能力。

5. 了解人文与社会，具备能够基于以人为本理念，根据具体项目背景，从问题到解决方案的构思及概念思维能力，使用必要和适当的方法、工具和过程，发明和设计以形成设计创意；制作以实现工业设计原型想法的能力，掌握表达、沟通、加工的基本方法以及材料、形式语言表述的技巧。

6. 了解工业设计在企业和整个社会经济中的作用，能对社会、经济和技术挑战进行反思和分析，能够理解、评价工业设计实践对世界和社会的影响，具备着重关注全球投资或消费品行业的潜力，遵循技术、可持续性、可用性和经济性要求进行设计的能力。

7. 了解工业和技术领域的产品开发过程，能基本胜任专业领域内一定设计项目的策划、创意、组织及实施，具备在创意团队中应用工具和方法与工程和营销专业人员沟通的能力，具有在多学科团队中发挥作用和人际交流的能力。

8. 具有制定实验方案、进行实验、分析和解释数据的能力，能利用多样化的工具和过程对机械和电子系统的原型制作和方案设计问题进行研究。

9. 对终身学习有正确认识，具有不断学习和适应发展的能力。

Graduates should master or acquire knowledge and abilities in the following nine areas:

1. Possess excellent moral character, establish a correct outlook on life, world outlook and values, have a strong sense of serving the society, sense of responsibility and innovation, legal sense, sense of integrity and teamwork spirit, have good physical and psychological qualities, have Ability to think independently and confidence in formal aesthetic expression.

2. Master the basic knowledge of mathematics and natural science and be able to use it to solve problems in the field of industrial design.

3. Master the theory, background and methods of industrial design, understand the latest contemporary knowledge, skills and technologies necessary for complex scheme design in the field of innovation and design, and be able to develop, select and use appropriate technologies, resources, Modern engineering tools and information technology tools; design and develop innovative solutions, and master certain basic skills in innovation and entrepreneurship.

4. Possess basic skills such as literature retrieval, design investigation, data analysis,

as well as basic norms for research reports and thesis writing, and have strong creative analysis capabilities.

5. Understand the humanities and society, and have the ability to conceive and conceptualize from problems to solutions based on the concept of people-oriented, according to the specific project context, use necessary and appropriate methods, tools and processes, invent and design to form design ideas; production; In order to realize the ability of industrial design prototype ideas, master the basic methods of expression, communication and processing, as well as the skills of material and formal language expression.

6. Understand the role of industrial design in enterprises and the entire social economy, be able to reflect and analyze social, economic and technological challenges, be able to understand and evaluate the impact of industrial design practices on the world and society, and be able to focus on global investment or consumer goods industries potential, the ability to design in compliance with technical, sustainability, usability and economic requirements.

7. Understand the product development process in the industrial and technical fields, and be basically competent in the planning, creation, organization and implementation of certain design projects in the professional field, and have the ability to apply tools and methods in the creative team to communicate with engineering and marketing professionals. Ability to function and communicate interpersonally in multidisciplinary teams.

8. The ability to develop experimental protocols, conduct experiments, analyze and interpret data, and use a variety of tools and processes to study prototyping and programming problems of mechanical and electronic systems.

9. Have a correct understanding of lifelong learning, and have the ability to continuously learn and adapt to development.

3 专业核心课程 Base Core Courses

专业核心课程：跨专业基础课 I、跨专业基础课 II、跨专业基础课III、“工具设计”专

题设计工作坊、“生活方式”专题设计工作坊、“材料”专题设计工作坊、“未来”专题设计工作坊、“想象”专题设计工作坊、“交互设计”专题设计工作坊、“跨学科”专题设计工作坊、“高端设计”专题设计工作坊、“细节设计”专题设计工作坊、“品牌设计”工作坊、“工业设计”工作坊等实践性教学课程。

Base Core Course: Interdisciplinary Foundation Course I, Interdisciplinary Foundation Course II, Interdisciplinary Foundation Course III, Practical training session such as “Tool”, “Lifestyle”, “Material”, “Next”, “Vision”, “Interaction”, “Interdisciplinary”, “High End”, “Detail”, “Brand”, “Partnership” Project, etc.

4 毕业要求 Graduation Requirement

（一）课程类别和学分要求 Course Categories and Credit Requirements

类别 Category	课程类别 Course Categories	哈工大学分 HIT Credit	%	学分合计 Total Credit	%
通识教育 General Education	公共基础课程 Public Fundamental Course	28	18.1%	45	29.1%
	数学与自然科学基础课程 Maths and Natural Science Fundamental Course	9	5.8%		
	文化素质教育课程 Cultural Education Course	8	5.2%		
专业教育 Professional Education	跨专业基础课程 Interdisciplinary Foundation Course	14	9.1%	109.5	70.9%
	专业核心课程 Base Core Module	60	38.8%		
	选修课程 Satellite	23.5	15.2%		
	毕业设计（论文） Thesis Project	12	7.8%		
合 计 Total		**154.5**	**100%**	**154.5**	**100%**

（二）修业年限、毕业要求及授予学位类型 Length of Study, Graduation Requirement and Degree Awarded

学制：四年。

授予学位：哈尔滨工业大学工学学士学位、瑞士苏黎世艺术大学艺术学学士学位。

毕业学分要求：学生应达到学校对本科毕业生提出的德、智、体、美等方面的要求，完成培养方案规定的全部课程学习及实践环节训练并达到双方学位授予要求，修满 154.5 学分，其中通识教育课程 45 学分，专业教育课程 109.5 学分，托福 80 分以上或雅思 6.5 以上（需在第一学年结束前完成），毕业设计（论文）答辩合格，方可准予毕业。

Length of Study: Four years.

Degree awarded: Bachelor of Arts of Zurich University of the Arts and the Bachelor of Engineering of Harbin Institute of Technology.

Graduation credit requirement: Students should meet the requirements of the school for undergraduate graduates in terms of morality, intelligence, physique, beauty, etc., complete all the course study and practical training stipulated in the training plan, and meet the degree awarding requirements of HIT and ZHdK, and complete 154.5 credits, including 45 credits of general education courses, 109.5 credits of professional education courses, TOEFL score of 80 or above or IELTS of 6.5 or above (acquire by the end of the first academic year), and dissertation defense can be approved for graduation.

5 学年教学进程表 Academic Year Schedule

工业设计专业本科第一学年教学进程表

Teaching Schedule for the First Academic Year of Industrial Design (Bachelor)

开课学期 Semester	课程编号 Code	课程名称 Course Name	哈工大学分 HIT Credit	哈工大学时 HIT Study Hour	欧洲学分 ECTS	授课模式 Teaching Mode				授课方 Taught By	授课教师 Lecturer	备注 Note
						讲授 Lecture	实验 Lab	工作坊 Studio	其他 Others			
秋季 Autumn	MILT1003	军事技能 Military Skills	2	2 周 2 weeks					√	哈工大 HIT		
	MILT1002	军事理论 Military Theory	2	36					√	哈工大 HIT		
	PE1001A	体育 A Physical Education A	1	32					√	哈工大 HIT		
	GEIP1015	思想道德与法治 Ideological and Moral Cultivation and Law	2.5	40		√				哈工大 HIT		
	GEIP1014	思想政治理论实践课 Ideological and Political Theory Practice Course	2	32		√				哈工大 HIT		
	SDFC2001	**跨专业基础课 I Interdisciplinary Foundation Course I**	**7.5**	**120**	**15**	√						

	SOSC1063	大学生心理健康 Mental Health Education	2	32		√				哈工大 HIT		
	MATH1012A	高等数学 IIA Advanced Mathematics IIA	3	48		√				哈工大 HIT		
	Subtotal: Y1 Semester 1 小计：第一学年第一学期		**22**	**340**	**15**							
春季 Spring	GEIP1016	中国近现代史纲要 Outline of Modern and Contemporary History of China	2.5	40		√				哈工大 HIT		
	PE1001B	体育 B Physical Education B	1	32					√	哈工大 HIT		
	SDFC2002	**跨专业基础课 II Interdisciplinary Foundation Course II**	**2.5**	**40**	**5**	√						
	SDFC2003	**跨专业基础课 III Interdisciplinary Foundation Course III**	**4**	**64**	**8**	√						
	PHYS1001A	大学物理 IA University Physics II	4	64		√				哈工大 HIT		
	NESC1001	国家安全教育	1	16						哈工大 HIT		
	MATH1012B	高等数学 IIB Advanced Mathematics IIB	2	32		√				哈工大 HIT		

	GEIP1017	习近平新时代中国特色 社会主义思想概论 Introduction to Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era	2.5	40		√				哈工大 HIT		
	Subtotal: Y1 Semester 2 小计：第一学年第二学期		**19.5**	**328**	**5**							
夏季 Summer	SDFC2004	信息科学基础 Information Science Fundamentals	2	32		√				哈工大 HIT		
	Subtotal: Y1 Summer Semester 小计：第一学年夏季学期		**2**	**32**								
第一学年合计 Subtotal: Year 1			**43.5**	**700**	**28**							
备注 Note	第一学年学生需达到托福 80 分以上或雅思 6.5 以上，修完跨专业基础课全部课程，并通过考核，方能获得苏黎世艺术大学的入学资格。 In the first academic year, students can only be admitted to the Zurich University of the Arts after they have achieved TOEFL score of 80 or above or IELTS of 6.5 or above, completed all the Interdisciplinary Foundation Courses and pass the examination by the end of the first academic year.											

工业设计专业本科第二学年教学进程表

Teaching Schedule for the Second Academic Year of Industrial Design (Bachelor)

开课学期 Semester	课程编号 Code	课程名称 Course Name	哈工大学分 HIT Credit	哈工大学时 HIT Study Hour	欧洲学分 ECTS	授课模式 Teaching Mode				授课方 Taught By	授课教师 Lecturer	备注 Note
						讲授 Lecture	实验 Lab	工作坊 Studio	其他 Others			
秋季 Autumn	GEIP1011	马克思主义基本原理 The Basic Theory of Marxism	3	48		√				哈工大 HIT		
	PE1001C	体育 C Physical Education C	1	32					√	哈工大 HIT		
	SDID2003	“工具设计”专题设计工作坊 L1 PROJECT 1 "TOOL"	3	48	5	√		√				
	SDID2004	“生活方式”专题设计工作坊 L1 PROJECT 2 "LIFESTYLE"	3	48	5	√		√				
	SDID2005	“材料”专题设计工作坊 L1 PROJECT 3 "MATERIAL"	5	80	7	√	√	√				
	SA**3***	**选修课 Satellite**	**3**	**48**	**6**	√	√					
		文化素质教育课程 Cultural Education Course	**2**	**32**	**4**	√				哈工大 HIT		
	Subtotal: Y2 Semester 1 小计：第二学年第一学期		**20**	**336**	**27**							

春季 Spring	GEIP1017	毛泽东思想和中国特色社会主义 理论体系概论 Introduction to Mao Zedong Thought and the Theoretical System of Socialism with Chinese Characteristics	2.5	40		√				哈工大 HIT		
	PE1001D	体育 D Physical Education D	1	32					√	哈工大 HIT		
	SDID2006	“未来”专题设计 工作坊 L2 PROJECT 1 "NEXT"	7	112	10	√		√				
	SDID2007	“想象”专题设计 工作坊 L2 PROJECT 2 "VISION"	4	64	7	√		√				
	SA**3***	**选修课 Satellite**	**3**	**48**	**6**	√	√					
		文化素质教育课程 Cultural Education Course	**2**	**32**	**4**	√				哈工大 HIT		
	Subtotal: Y2 Semester 2 小计：第二学年第二学期		**19.5**	**328**	**27**							
夏季 Summer	SA**3***	**选修课 Satellite**	**3**	**48**	**6**	√	√					
	Subtotal: Y2 Summer Semester 小计：第二学年夏季学期		**3**	**48**	**6**							
第二学年合计 Subtotal: Year 2			**42.5**	**712**	**60**							

备注 Note	1、第二学年学生只能从主题、实验和博物馆中选择“选修课”课程。 In the second academic year students can only choose "Ellective" courses from Content, Lab, and Museum Satellites. 2、第二学年的秋季学期学生不能同时选择实验选修课和博物馆选修课。 In the fall Semester of second academic year, students should avoid choosing both Lab and Museum Satellites.

工业设计专业本科第三学年教学进程表

Teaching Schedule for the Third Academic Year of Industrial Design (Bachelor)

开课学期 Semester	课程编号 Code	课程名称 Course Name	哈工大学分 HIT Credit	哈工大学时 HIT Study Hour	欧洲学分 ECTS	授课模式 Teaching Mode				授课方 Taught By	授课教师 Lecturer	备注 Note
						讲授 Lecture	实验 Lab	工作坊 Studio	其他 Others			
	SDID3001	“交互设计”专题设计工作坊 L3 PROJECT 1 "INTERACTION“	7	112	10	√		√				
	SDID3002	“跨学科”专题设计工作坊 L3 PROJECT 2 / "INTERDISCIPLINARY"	4	64	7	√		√				
	SA**3***	**选修课 Satellite**	**3**	**48**	**6**	√	√					
		文化素质教育课程 Cultural Education Course	**2**	**32**	**4**	√				哈工大 HIT		
	Subtotal: Y3 Semester 1 小计：第三学年第一学期		**16**	**256**	**27**							
春季 Spring	GEIP1010	形势与政策 Situation and Policy	2	32		√				哈工大 HIT		
	SDID3003	“高端设计”专题设计工作坊 L4 PROJECT 1 "HIGH END"	6	96	9	√		√				

	SDID3004	“细节设计”专题设计工作坊 L4 PROJECT 2 "DETAIL"	5	80	8	√		√				
	SA**3***	**选修课 Satellite**	**3**	48	**6**	√	√					
		文化素质教育课程 Cultural Education Course	**2**	**32**	**4**	√				哈工大 HIT		
	Subtotal: Y3 Semester 2 小计：第三学年第二学期		**18**	**288**	**27**							
夏季 Summer	SA**3***	**选修课 Satellite**	**3**	**48**	**6**	√	√					
	Subtotal: Y3 Summer Semester 小计：第三学年夏季学期		**3**	**48**	**6**							
第三学年合计 Subtotal: Year 3			**37**	**592**	**60**							
备注 Note	1、第三学年的秋季学期和春季学期学生只能从主题、海外、实践、产业、实验和博物馆中选择“选修课”课程。 In the Fall Semester and Spring Semester of the Third Academic Year students can only choose from Content, Abroad, Practice, Industry, Lab and Museum Satellites. 2、第三学年的夏季学期学生可选任意选修课课程。 In the Summer Semester of the third Academic Year students can choose from any Satellites.											

工业设计专业本科第四学年教学进程表

Teaching Schedule for the Fourth Academic Year of Industrial Design (Bachelor)

开课学期 Semester	课程编号 Code	课程名称 Course Name	哈工大学分 HIT Credit	哈工大学时 HIT Study Hour	欧洲学分 ECTS	授课模式 Teaching Mode				授课方 Taught By	授课教师 Lecturer	备注 Note
						讲授 Lecture	实验 Lab	工作坊 Studio	其他 Others			
秋季 Autumn	SDID3005	“品牌设计”工作坊 L5 PROJECT 1 "BRAND"	7	112	10	√		√				
	SDID3006	“合作项目”工作坊 L5 PROJECT 2 / "PARTNERSHIP"	7	112	9	√		√				
	SA**3***	**选修课 Satellite**	**5.5**	**88**	**11**	√	√					
	Subtotal: Y4 Semester 1 小计：第四学年第一学期		**19.5**	**312**	**30**							
春季 Spring	SDID3499	毕业设计 Thesis Project	12	192	30				√			
	Subtotal: Y4 Semester 2 小计：第四学年第二学期		**12**	**192**	**30**							
第四学年合计 Subtotal: Year 4			**31.5**	**504**	**60**							

总计 **Subtotal**		**154.5**	**2508**	**208**							
备注 Note	第四学年的秋季学期学生可选任意选修课课程，但必须包含实践或产业选修课。 In the Fourth Academic Year students can choose from any Satellites, but Practice or Industry must be included.										

Interdisciplinary Foundation Course Ⅰ

Course code: SDFC2001 **Course name:** Interdisciplinary Foundation Course Ⅰ

Credit points: ECTS 15 Chinese: 7.5

Subjects related: Architecture, Design

Pre-requirement for the course: None

Faculty or department: SISD

Mandatory or elective: Mandatory

Teachers in charge of the Course:

Course Description（about 200 words）

The course consists of 5 sub-courses, which can comprehensively train thinking and skills. The course mainly guides students to understand that creativity refers to those activities derived from personal creativity, skills, and talents, which have the potential to create wealth and employment opportunities through the generation and utilization of intellectual property rights. And learn about the key impacts of creative products on business, culture, and society. Study creative disciplines using different methods in habitual practice. Learn about the history of design and architecture, and the impact of architectural history on matter and style, medium and perception, society, and politics. In addition, discuss the influence and use of interdisciplinary methods, techniques, processes, materials, eat.

Sub-course 1: Introduction in Creative Disciplines

Credit points: ECTS:2 Chinese:1

Sub-course code: BA FC 1

Mandatory or elective: Mandatory

Learning objectives/aims and competencies

- The definition of “creative disciplines” generally. Globally and locally;
- The role of creatives and creativity for the Economy and Society;
- Typical labour markets-the “Creative Economy”;
- Creativity as a source for culture and business;
- The global influence of creativity;
- Solving problems and building up knowledge with creativity;
- The difference between Art, Design and Architecture;
- What is the fundamental difference and the similarities in the practice oriented and academic oriented creative disciplines?
- How does creative disciplines contribute to Business, Culture and Society?
- What are typical role models in the Creative Industry?
- What career opportunities are offered in the Creative Industry?

Units

1 Professional

2 Academics

Teaching and learning methods and formats

- Lectures
- Workshop
- Mentoring

Envisaged practical skills

Gain an individual self-orientation and a mapping of interests.

Envisaged theoretical and reflective skills

- Know the character, the position and the purpose of creative disciplines;

- Have an understanding of the different roles in the Industry and the Economy (i.e. Agencies, Start-Ups, Incubators, employed, self- employed, etc.);
- Position yourself in the framework of Creative Culture and -Economy;
- Understand “Creative Commons” as a global movement.

Envisaged scientific skills

- Knowledge of rules and criteria in the creative academic and economic society. (i.e. scientific, research, PHD, lecturer, etc.), and the creative professional world (Business, Agencies etc.);
- Distinguish between creative culture, creative business and creative knowledge;
- The value of intellectual property as a fundamental result of the creative economy.

Sub-course conclusion and proof of performance

None

Unit 1 Creative Professional

(code: BA FC 1.1)

Profile of lecturer(s)

Experienced practicing professional Designer or Architect.

Content

- Outlook in the professional Design- and Architecture Scene, with examples of the field of work and the required; knowledge and experience for architects and designers;
- Self-reflection on the following field of study at SISD;
- Global and local views and insights;
- Role models and examples;
- Designers and Architects as a popular figures and role models;
- Challenges and opportunities in the professional market;
- Career pathways, models in creative business (Architecture and / or Design).

Teaching and learning methods and formats

- Lectures
- Workshop

Learning objectives/aims and competencies

- Knowledge and experience of professional requirements in the creative professional world;
- Understanding rules and affordances, chances and risks in the Professional Creative System;
- Position yourself in the Creative System.

Unit conclusion and proof of performance

Presentation of own perspective and interests on creative practice.

Bibliography / literature

Will be provided

Necessary infrastructure and equipment

None

Necessary student equipment

Laptop

References and web links

Will be provided

Unit 2 Creative Academics

(code: BA FC 1.2)

Profile of lecturer(s)

Experienced Academic trained Designer or Architect. Probably Background in Theory and Research - PHD.

Content

- Role of the academic world in the Creative Disciplines;
- Purpose and aim of academical results as research and theory;
- Career models and examples in Academic Institutions;
- Reflection on the following field of study at SISD:
  Global and local view in terms of Academia;
  Role models, pathways and career examples in Academia, challenges and opportunities;
  The role of Theory, Knowledge, Culture and Research in Academia.

Teaching and learning methods and formats

- Lectures
- Workshop

Learning objectives/aims and competencies

- Knowledge and experience of necessary intellectual requirements and practice in the creative academic world;
- The value of intellectual properties;
- Publications and Writing as a result.

Unit conclusion and proof of performance

Presentation of own set of knowledge and interests on academic practice

Bibliography / literature

Will be provided

Necessary infrastructure and equipment

None

Necessary student equipment

Laptop

References and web links

None

Sub-course 2: Graphic, Information, Object, Space, Environment

Credit points: ECTS:3 Chinese:1.5

Sub-course code: BA FC 2

Mandatory or elective: Mandatory

Learning objectives/aims and competencies

- The different fundamental forms of appearance, and field of knowledge and practice for Design (Communication/Visual and Object) and Architecture/Urban/Landscape dealing with specific methods, media, processes and results;
- Working with different scales, media, materials, processes, technologies and scope;
- Cultural, economic and practical aspects;
- Necessary basic talent, skills and knowledge;
- Impact for culture, society and business;
- What are typical working frameworks, settings and methods?
- Overlapping fields of the different types of Design and Architecture as an interdisciplinary approach (e.g. Smart City, Sustainable City);
- New directions as Game Design and Interaction Design, Immersive Design, dealing with a crossover of disciplines and it's methods, technologies and application;
- Critical reflection and discussion of roles of disciplines.

Units

1 2D Design

2 3D Design

3 Environment and Space

Teaching and learning methods and formats

- Lectures
- Seminars
- Workshop

Envisaged practical skills

- Discussion of the different current fields in practise and as a discipline;

- What do I need to know and what skills are important?
- What are the core competencies and roles in Architecture and Design?

Envisaged theoretical and reflective skills

- Basic knowledge of the underlying theory and methods;
- What are typical disciplinary working and knowledge environments?

Envisaged scientific skills

- Basic knowledge of sets of Research and Theory in Design and Architecture;
- The reflection and use of the term “science” in the disciplines;
- Important publications and disciplinary turns and movements.

Sub-courses conclusion and proof of performance

None

Unit 1 2D Design

(code: BA FC 2.1)

Profile of lecturer(s)

Experienced 2D Designer (Visual, Editorial, Graphic, Brand, Interaction, etc.) with a broad view and understanding of 2D Design.

Content

- What is 2D Design?
- Different aspects of 2D Design;
- Quality rules for 2D Design (good/bad), examples;
- How is 2D Design produced (Process);
- Used Tools, Methods, Processes and Technologies;
- Significance of 2D Design in the Production/Industry/Process;
- Difference between Analogue-Digital and Interactive 2D Design;
- Digitalisation and the impact of nonlinear information design;
- Must have qualities for a 2D Designer;
- Estimated future trends in 2D Design.

Teaching and learning methods and formats

- Lectures
- Workshop
- Seminars

Learning objectives/aims and competencies

- Knowledge of the basic principles, qualities, methods of 2D Design. Distinguish between good, bad an average 2D Design;
- Knowledge of the basic talents, and used tools for 2D Design;
- Typical work environments for 2D Design;
- Overview of 2D Design types: as Editorial Design, Typography, Typesetting, Poster Design, Screen Design, Brand Design, Interaction Design, etc.;
- Knowledge of important 2D Design in the history globally;
- Knowledge of important 2D Designers and Agencies globally;
- Typical applications and Markets of 2D Design in the Industry, Culture and Society;
- Creation and Production processes.

Unit conclusion and proof of performance

Short presentation on 2D Design perspective. Group work.

Bibliography / literature

Will be provided

Necessary infrastructure and equipment

None

Necessary student equipment

Laptop

References and web links

Will be provided

Unit 2 3D Design

(code: BA FC 2.2)

Profile of lecturer(s)

Experienced 3D Designer (Product, Electronics, Investment goods, etc.) with a broad view and understanding of 3D Design.

Content

- What is 3D Design?
- Different aspects of 3D Design;
- Quality rules for 3D Design (good/bad), examples;
- How is 3D Design produced (Process);
- Used Tools, Methods and Technologies;
- Significance of 3D Design in the Production/Industry/Process;
- Difference between Analog and Digital 3D Design;
- Digitalisation and the impact of nonlinear information design;
- Must have qualities for a 3D Designer;
- Estimated future trends in 3D Design.

Teaching and learning methods and formats

- Lectures
- Workshop
- Seminars

Learning objectives/aims and competencies

- Knowledge of the basic principles, qualities, methods of 3D Design. Distinguish between good, bad an average 3D Design;
- Know the basic talents and tools for 3D Design;
- Typical work environments for 3D Design;
- Knowledge of important 3D Designs around the history, globally. Yesterday and today;
- Blurring borders between object and information;
- The culture of objects. Different types of Object Design Reflection of 3D Design in the industry and society. Consumption Goods, Luxury Goods, Investment Goods, Furniture, Mobility, etc.

- Knowledge of important 3D Designers and Agencies globally;
- Typical applications and Markets of 3D Design in the Industry, Culture and Society.
- Creation and Production processes.

Unit conclusion and proof of performance

Short presentation on 3D Design perspective. Group work.

Bibliography / literature

Will be provided

Necessary infrastructure and equipment

None

Necessary student equipment

Laptop

References and web links

None

Unit 3 Environment and Space

(code: BA FC 2.3)

Profile of lecturer(s)

Experienced Architect/Urban Planner with a broad view and understanding of the function of Spatial Design/Architecture/Urban Design.

Content

- What is Spatial-, Architectural-, and Landscape Design?
- Different aspects of Spatial-, Architectural-, and Landscape Design;
- Quality rules for Architectural/Landscape Design (good/bad);
- How is Architectural/Landscape Design produced (Process);
- Used Tools, Methods and Technologies;
- Significance of Architectural/Landscape Design in the Urban Planning Process;
- Difference between Analogand Digital/Interactive Architectural/Landscape Design;
- Must have qualities for a Architectural/Landscape/Urban Designer;
- Sustainable Environment and Smart Cities;
- Estimated future trends in Architectural/Landscape Design.

Teaching and learning methods and formats

- Lectures
- Workshop
- Seminars

Learning objectives/aims and competencies

- Knowledge of the basic principles, the qualities, methods of Spatial Design and Architecture. Distinguish between good an average Spatial Design and Architecture.
- Know the basic talents and tools for Spatial Design and Architecture;
- Typical work environments for Spatial Design and Architecture;
- Knowledge of important Spatial Design and Architecture around the history globally. Yesterday and today;
- Typical use and reflection of Spatial Design and Architecture in the industry and society. From small scale (House) to large scale (City);
- Typical applications and Markets of Spatial Design and Architecture in the Industry, Culture and Society;

- Creation and Production processes.

Unit conclusion and proof of performance

Short presentation on Environment and Space perspective. Group work.

Bibliography / literature

Will be provided

Necessary infrastructure and equipment

None

Necessary student equipment

Laptop

References and web links

None

Sub-course 3: Design and Architecture History Part 1

Credit points: ECTS:3 Chinese:1.5

Sub-course code: BA FC 3

Mandatory or elective: Mandatory

Learning objectives/aims and competencies

The history of design refers to the history of product design and begins with the mass production of consumer goods in industrial society in the mid-19th century. Furthermore, it deals with the history of graphic design and other areas of design.
Architectural history analyses architecture and the built environment in their historical dimension. Architectural history covers the broad spectrum from design to building and construction to architectural tradition in the broadest sense. Architectural history is interested in material and stylistic, medial and perception-theoretical questions as well as in the social, political and societal dimensions of architecture. The (historical) theory of architecture and the history of monument preservation are also the subject of architectural history, which further contributes to critical heritage studies.
Understand the history of design and architecture as framework and orientation for your own discipline. Understand and position historical and cultural background.

Units

1 Design and Architecture History Part 1

Teaching and learning methods and formats

- Lectures
- Seminars

Envisaged practical skills

None

Envisaged theoretical and reflective skills

Basic knowledge, orientation and understanding of the history of Design and Architecture and influences of:

Historical;

Political

Technical;;
Cultural;
Social;
Global/Local;
developments and positions.

- Understand the underlying theory and methods. Drawing insights from the history towards current developments and the future implications. Understanding the historical development, leading to current- and future results and theories. Important cultural turns and movements as Arts and Crafts Movement, Modernism, Postmodernism, Deconstruction, Functional Design, Social Design, Biodesign, etc..
- Learn about important institutions, persons and offices or agencies. Know important milestones of the history.

Envisaged scientific skills

- Reading and understanding text on the history of Design and Architecture;
- Drawing own conclusions;
- Understand the relation between practice and history.

Sub-courses conclusion and proof of performance

- Writing a text
- Presentation

Unit 1 Design and Architecture History Expert

(code: BA FC 3.1)

Profile of lecturer(s)

Design and Architecture History Expert.

Content

- Understand of Design & Architecture in it's historical context;
- Knowledge on the relation of history, society and economy;
- Understand different cultural periods and it's expressions;
- Knowledge on important persons, Schools of expressions (as Bauhaus, Black Mountain College, etc.) and styles
- Learn theoretical thinking as Modernity, Postmodernity, Renaissance, etc.;
- Know the most important items, buildings, companies and processes

Teaching and learning methods and formats

- Workshop
- Seminars

Learning objectives/aims and competencies

- Overview of different periods in Architecture and Design.
- Influences of the society, technology and economy on Architecture and Design and vice versa
- Differentiate Design, Art, Architecture. Classify styles and schools.
- Know important theory buildings in Architecture and Design
- Reflect history in your own creative process.
- Understand the underlying theory and methods.

Unit conclusion and proof of performance

Presentation of a given historical topic.

Bibliography / literature

Will be provided

Necessary infrastructure and equipment

None

Necessary student equipment

Laptop

References and web links

None

Sub-course 4: Creative Methods

Credit points: ECTS:2 Chinese:1

Sub-course code: BA FC 4

Mandatory or elective: Mandatory

Learning objectives/aims and competencies

- Creative disciplines are making use of different methods in the daily practice;
- A set of methods are the basics for Theory and Research;
- User focused and participative processes result in better adapted and more accepted results;
- Students learn in this module the most important and useful Design Thinking Methods, gaining results for their own creative process;
- Students learn how to set up and master a participative process and evaluate the outcome, results and to make use for the own practice or theory.

Units

1 Design Thinking and other Creative Methods

2 Collaborative and Participative Methods

Teaching and learning methods and formats

- Workshop
- Seminars

Pre-requirements for this course

Short presentation on a set of creative methods

Envisaged practical skills

- Practical application of Design Thinking and Participative Processes;
- Become a moderator for a Design process;
- Involving stakeholders and affected communities in the right way.

Envisaged theoretical and reflective skills

- Learn the underlying theories of Design Thinking and participative design processes;
- Evaluate your own outcome and results;

- Set up a process;
- Deal with stakeholder expectations.

Envisaged scientific skills

Understand the scientific background and the theory behind Design Thinking and Participative Processes.

Sub-courses conclusion and proof of performance

Presentation

Unit 1 Design Thinking and Other Creative Methods

(code: BA FC 4.1)

Profile of lecturer(s)

Design Thinking Expert.

Content

- Understand of Design Thinking and other Creative Methods;
- Apply Design Thinking in your own practice;
- Understand the Theory behind Design Thinking;
- Get an overview and understanding of other creative methods;
- Try to create your own method.

Teaching and learning methods and formats

- Workshop
- Seminars

Learning objectives/aims and competencies

- Understand Design Thinking?
- How is a Design Thinking Process organized and executed?
- Necessary tools for a Design Thinking Process;
- What are outcomes of a Design Thinking Process?
- What are other useful creative methods that can be used for Theory and Practise?
- The use of Questionnaires, Mapping and Problem Framing.

Unit conclusion and proof of performance

Presentation, setting up an own design thinking workshop.

Bibliography / literature

Will be provided

Necessary infrastructure and equipment

None

Necessary student equipment

Laptop

References and web links

None

Unit 2 Collaborative and Participative Methods

(code: BA FC 4.2)

Content

- What is a “user focus” or a “human centred” focus?
- The importance and value of the inclusion of users for a creative process;
- Overview of different user focused and participative methods;
- Stakeholder- and experience management;
- What are social- and societal aspects of Design and Architecture?

Teaching and learning methods and formats

- Workshop
- Seminars
- Role Play

Learning objectives/aims and competencies

- What means “user focused”?
- What defines the “user”?
- What are outcomes of a participative process?
- How can I make use of users need, experience and knowledge for my own work?
- How can I understand a problem?
- How can I frame a problem?
- How do I set up a participative user inclusive workshop?
- What tools and methods are needed?
- Questionnaires, mapping and framing;
- Catalyse results of a user workshop;
- Soft Prototyping, case modelling, framing.

Unit conclusion and proof of performance

- Setup your own user oriented workshop;
- Test your workshop

Bibliography / literature

Will be provided

Necessary infrastructure and equipment

None

Necessary student equipment

Laptop

References and web links

None

Sub-course 5: Skills, Methods and Tools 1

Credit points: ECTS:5 Chinese:2.5

Sub-course code: BA FC 5

Mandatory or elective: Mandatory

Learning objectives/aims and competencies

- Initial drawing and sketching skills;
- Exercise and train your drawing, rendering, sketching and printing skills;
- Express your idea or a concept in a quick way, using sketches;
- 2D and 3D techniques of visualize, plan and perspective;
- Necessary materials, techniques and tools.

Units

1 Drawing, Rendering and Sketching, Printing

Teaching and learning methods and formats

- Workshop
- Lectures
- Exercises

Envisaged practical skills

- Become a skilled communicator, using a set of illustration and drawing techniques;
- Develop your own style of expression.

Envisaged theoretical and reflective skills

- Understand the perception behind hand drawing;
- Differences between 2D and 3D design drawings;
- Reflect your own sketching style for everyday purposes.

Envisaged scientific skills

Drawing as an information- and communication tool.

Sub-courses conclusion and proof of performance

Folder presentation

Unit 1 Drawing, Rendering and Sketching, Printing

(code: BA FC 5.1)

Profile of lecturer(s)

Skilled Design/Architecture draftsman.

Content

- Intensive drawing exercises;
- 3D and 2D drawings;
- Theory of perspective, intersection and plan;
- Use of drawing tools, techniques and media;
- For which task do I use which drawing style or technique?
- What is the difference of a sketch and a technical drawing?
- Develop your individual expression;
- Sketching as quick presentation of ideas and concepts.
- Difference of hand drawing and CAD.

Teaching and learning methods and formats

- Exercises

Learning objectives/aims and competencies

- Become a skilled and virtuous draughtsman;
- Perspective, plan, section and elevation;
- What is the purpose of a sketch, a plan and a rendering;
- When and how to use it in your creative process.

Unit conclusion and proof of performance

Individual folder of drawings, illustrations, sketches and renderings, all made by hand

Bibliography / literature

Will be provided

Necessary infrastructure and equipment

None

References and web links

None

跨专业基础课程 Ⅰ

课程代码: SDFC2001　　**课程名:** 跨专业基础课程 Ⅰ

学分: 欧方 15 学分　中方 7.5 学分

开设专业: 建筑学、设计学

先修课程: 无

负责院系： SISD

必修或选修: 必修

负责教师:

课程描述（约 200 字）

课程包含了 5 门子课程，可对学生的思维和技能进行综合训练。课程主要引导学生理解创意是源自个人创意、技能和才干的活动，通过知识产权的生成与利用，创造财富和就业机会。并了解创意产品对商业、文化和社会的主要影响。学习创造性学科在日常实践中使用的不同方法，了解设计和建筑的历史，以及建筑史对物质和风格、媒介和感知、社会以及政治的影响。学习跨学科方法、技术、工艺、材料等，并对其使用进行反思和讨论。

子课程 1: 创意学科导论

学分: ECTS:2　哈工大学分:1

必修或选修: 必修

课程培养目标与能力

- “创意学科”的一般定义：全球化和本地化;
- 创意和创造力对经济和社会的作用;
- 典型的劳动力市场——“创意经济”;
- 创意作为文化和商业的源泉;
- 创造力的全球影响力;
- 用创造力解决问题和积累知识;
- 艺术、设计和建筑的区别;
- 实践导向和学术导向的创造性学科的根本区别和相似之处是什么?
- 创意学科如何为商业、文化和社会做出贡献?
- 创意产业的典型榜样是什么?
- 创意产业提供哪些职业机会?

单元

1 专业

2 学术

教学模式与方法

- 讲座
- 工作坊
- 指导

目标实践技能

学生获得个人的自我定位和兴趣引导。

目标理论与思维能力

- 了解创造性学科的性质、地位和目的;
- 了解行业和经济领域中的不同角色（即机构、初创企业、孵化器、受雇、自雇等）;
- 将自己定位在创意文化和经济的框架中;
- 将“知识共享”理解为一项全球趋势。

目标科学技能

- 了解创造性学术和经济社会的规则和标准（即科学、研究、博士、讲师等）和创意专业领域（商业、机构等）；
- 区分创意文化、创意商业和创意知识;
- 知识产权的价值是创意经济的基本结果。

子课程考核方式

无

单元 1　创意（专业）

(单元编号: BA FC 1.1)

师资配备

经验丰富的执业设计师或建筑师。

内容

专业设计和建筑场景的展望，包括工作领域的案例和要求。建筑师和设计师的知识和经验。

对以下研究领域的自我反思:

- 全球和当地的观点和见解;
- 榜样和例子;
- 设计师和建筑师作为流行人物和榜样;
- 专业市场的挑战和机遇;
- 职业道路、创意业务模型（建筑和/或设计）。

教学模式

- 讲座
- 工作坊

学习目标和能力培养

- 创意专业领域专业要求的知识和经验;
- 了解专业创意系统中的规则和可供性、机会和风险;
- 了解自己在创意系统中的定位。

单元总结和考核方式

在创意实践中展示自己的观点及兴趣。

参考书目/文献

待定

必要的基础设施和设备

笔记本电脑（学生设备）

参考资料和网页链接

待定

单元 2　创意（学术）

(单元编号: BA FC 1.2)

师资配备

- 经验丰富、受过专业学术培训的设计师或建筑师;
- 有理论和研究背景的博士。

内容

- 学术界在创意学科中的作用;
- 学术成果作为研究和理论的价值和目的;
- 学术机构的职业模式和案例;
- 对 SISD 以下研究领域的思考:
  学术界的全球和地方观点;
  学术界的榜样、职业途径和职业榜样、挑战和机遇;
  理论、知识、文化和研究在学术界的作用。

教学模式

- 讲座
- 工作坊

学习目标和能力培养

- 创意专业领域要求的知识和实践经验;
- 知识产权的价值
- 出版物及写作。

单元总结和考核方式

在学术实践中展示自己的知识及兴趣。

参考书目/文献

待定

必要的基础设施和设备

笔记本电脑（学生设备）

参考资料和网页链接

待定

子课程 2: 图形、信息、对象、空间、环境

学分: ECTS:3　哈工大学分:1.5

必修或选修: 必修

课程培养目标与能力

- 不同外观基本形式的处理特定方法、媒体、过程和结果的设计（通信/视觉和对象）和建筑/城市/景观的知识及实践领域;
- 运用不同的规模、媒体、材料、工艺、技术和范围;
- 文化、经济和实践;
- 必要的基本技能和知识;
- 对文化、社会和商业的影响;
- 典型的工作框架、设置和方法是什么?
- 不同类型设计和建筑学在跨学科中的运用（例如智慧城市和可持续城市）;
- 游戏设计、交互设计、沉浸式设计等新方向，涉及学科交叉及其方法、技术和应用;
- 对学科角色的批判性反思和讨论。

单元

1 二维设计

2 三维设计

3 环境与空间

教学模式与方法

- 讲座
- 研讨会
- 工作坊

目标实践技能

- 讨论当前不同领域的实践和学科;
- 需要知道什么知识以及哪些技能很重要?
- 建筑和设计的核心竞争力及角色分别是什么?

目标理论与思维能力

- 理论和方法的基本知识;
- 什么是典型的学科工作和知识环境?

目标科学技能

- 具备设计与建筑研究理论的基础知识;
- “科学”一词在学科中的反思和使用;
- 重要的出版物、学科转变和推动。

子课程考核方式

无

单元 1　二维设计

(单元编号: BA FC 2.1)

师资配备

经验丰富的二维设计师（视觉、版面、图形、品牌、交互等），对二维设计有广阔的视野和理解。

内容

- 什么是二维设计?
- 二维设计的不同方面;
- 二维设计的质量规则（好/坏）示例;
- 二维设计是如何产生的（过程）;
- 使用的工具、方法、流程和技术;
- 二维设计在生产/行业/流程中的意义;
- 模拟数字和交互式二维设计之间的区别;
- 数字化和非线性信息设计的影响;
- 二维设计师必须具备的素质;
- 预估二维设计的未来趋势。

教学模式

- 讲座
- 工作坊
- 研讨会

学习目标和能力培养

- 了解二维设计的基本原理、质量和方法。区分好的、坏的和一般的二维设计;
- 二维设计的基础知识和使用的工具;
- 二维设计的典型工作环境;
- 二维设计类型概述：如版面设计、排版、字体设计、海报设计、屏幕设计、品牌设计、交互设计等;
- 了解全球历史上重要的二维设计;
- 了解全球重要的二维设计师和机构;
- 二维设计在工业、文化和社会中的典型应用和市场;
- 创建和生产过程。

单元总结和考核方式

关于二维设计的简短展示。小组工作。

参考书目/文献

待定

必要的基础设施和设备

笔记本电脑

参考资料和网页链接

待定

单元 2　三维设计

(单元编号: BA FC 2.2)

师资配备

经验丰富的三维设计师（产品、电子产品、投资品等），对三维设计有广阔的视野和理解。

内容

- 什么是三维设计?
- 三维设计的不同方面;
- 三维设计的质量规则（好/坏）示例;
- 三维设计是如何产生的（过程）;
- 使用的工具、方法和技术;
- 三维设计在生产/行业/流程中的意义;
- 模拟和数字三维设计之间的区别;
- 数字化和非线性信息设计的影响;
- 三维设计师必须具备的素质;
- 预估三维设计的未来趋势。

教学模式

- 讲座
- 工作坊
- 研讨会

学习目标和能力培养

- 了解三维设计的基本原理、质量和方法。能够区分好的、坏的和一般的三维设计;
- 了解三维设计的基本技能和工具;
- 三维设计的典型工作环境;
- 了解全球历史上重要三维设计的过去和现状;
- 打破客体和信息之间的边界;
- 物品的文化，不同类型物体;
- 三维设计在行业和社会中的反映，如消费品、奢侈品、投资品、家具、移动设备等;
- 了解全球重要的三维设计师和机构;
- 三维设计在工业、文化和社会中的典型应用和市场;

- 创作和生产过程。

单元总结和考核方式

关于三维设计的简短展示。小组工作。

参考书目/文献

待定

必要的基础设施和设备

笔记本电脑

参考资料和网页链接

待定

单元 3　环境与空间

(单元编号: BA FC 2.3)

师资配备

经验丰富的建筑师/城市规划师，对空间设计/建筑/城市设计的功能有广阔的视野和理解。

内容

- 什么是空间、建筑和景观设计?
- 空间、建筑和景观设计的不同方面;
- 建筑/景观设计的质量规则（好/坏）;
- 建筑/景观设计是如何产生的（过程）;
- 使用的工具、方法和技术;
- 建筑/景观设计在城市规划过程中的意义;
- 模拟与数字/交互建筑/景观设计的区别;
- 建筑/景观/城市设计师必须具备的素质;
- 可持续环境和智慧城市;
- 估计建筑/景观设计的未来趋势。

教学模式

- 讲座
- 工作坊
- 研讨会

学习目标和能力培养

- 了解空间设计和建筑的基本原则、品质、方法，能够区分好的和一般的空间设计和建筑;
- 了解空间设计与建筑的基本技能和工具;
- 空间设计和建筑的典型工作环境;
- 了解全球历史上重要空间设计和建筑的过去和现状;
- 空间设计与建筑在行业和社会中的典型运用与体现。从小规模（房屋）到大规模（城市）;
- 空间设计与建筑在工业、文化和社会中的典型应用和市场;
- 创建和生产过程。

单元总结和考核方式

关于环境与空间的简短展示。小组工作。

参考书目/文献

待定

必要的基础设施和设备

笔记本电脑（学生设备）

参考资料和网页链接

待定

子课程 3: 设计与建筑史第 1 部分

学分: ECTS:3　哈工大学分:1.5

必修或选修: 必修

课程培养目标与能力

- 设计史是指产品设计的历史，始于 19 世纪中叶工业社会消费品的大规模生产。此外，它还涉及平面设计和其他设计领域的历史;
- 建筑史从历史维度分析建筑和建成环境，涵盖了从最广泛意义上的设计到建筑和施工到建筑传统的广泛领域。建筑史关注材料和风格、媒介和感知理论问题，以及建筑的社会、政治和社会维度。建筑的（历史）理论和古迹保护的历史也是建筑史的主题，进一步有助于批判性遗产研究;
- 将设计和建筑的历史理解为学生自己的学科框架和方向，了解和定位历史文化背景。

单元

1 设计与建筑史第 1 部分

教学模式与方法

- 讲座
- 研讨会

目标实践技能

无

目标理论与思维能力

对设计和建筑基本知识、方向和历史的理解，以及对以下方面的影响:

- 历史;
- 政治;
- 技术;
- 文化;
- 社会;
- 全球/本地;
- 发展和立场。

- 了解基本理论和方法，从历史中汲取对当前发展和未来影响的见解。了解历史发展，对当前和未来的结果影响和理论影响。重要的文化转折和运动，如工艺美术运动、现代主义、后现代主义、解构主义、功能设计、社会设计、生物设计等。
- 了解重要的机构、人员、办公室或机构，了解历史的重要里程碑。

目标科学技能

- 阅读和理解有关设计和建筑史的资料；
- 得出自己的结论；
- 了解实践与历史之间的关系。

子课程考核方式

- 文稿撰写；
- 成果展示。

单元 1　设计与建筑史第 1 部分

(单元编号: BA FC 3.1)

师资配备

设计与建筑史专家。

内容

- 什么是空间、建筑和景观设计?
- 理解其历史背景下的设计和建筑;
- 关于历史、社会和经济关系的知识;
- 了解不同的文化时期及其表达方式;
- 重要人物知识、表达学派（如包豪斯学院、黑山学院等）、风格
- 学习现代性、后现代性、文艺复兴等理论思维;
- 了解最重要的项目、建筑、公司和流程

教学模式

- 工作坊
- 研讨会

学习目标和能力培养

- 关于不同时期的建筑和设计的概述。
- 社会、技术和经济与建筑和设计的相互影响。
- 区分设计、艺术、建筑。能够对风格和学派进行分类。
- 了解建筑与设计中的重要理论构成。
- 在自己的创作过程中反思历史。
- 理解基础的理论和方法

单元总结和考核方式

展示给定的历史主题。

参考书目/文献

待定

必要的基础设施和设备

笔记本电脑（学生设备）

参考资料和网页链接

待定

子课程 4: 创意方法

学分: ECTS:2　哈工大学分:1

必修或选修: 必修

课程培养目标与能力

- 创造性学科在日常实践中使用的不同方法;
- 一套理论与研究的基础方法;
- 以用户为中心和参与性的过程会让学生产生更好的适应性和结果更容易被接受;
- 学生在本课程中学习最重要和最有用的设计思维方法，取得自己的创作过程成果;
- 学生将学习如何建立和掌握参与式过程，评估结果，并用于自己的实践或理论。

单元

1 设计思维和其他创造性方法

2 协作和参与方法

教学模式与方法

- 研讨会
- 工作坊

本课程的预要求

关于一套创意方法的简短展示

目标实践技能

- 设计思维和参与过程的实际应用;
- 成为设计过程的主导人;
- 以正确的方式让利益相关者和受影响的群体参与进来。

目标理论与思维能力

- 学习设计思维和参与式设计过程的基本理论;
- 评估自己的结果;
- 设置流程;
- 处理利益相关者的期望。

目标科学技能

了解设计思维和参与过程背后的科学背景和理论。

子课程考核方式

成果展示

单元 1　设计思维和其他创造性方法

(单元编号: BA FC 4.1)

师资配备

设计思维专家。

内容

- 了解设计思维和其他创意方法;
- 在设计实践中应用设计思维;
- 了解设计思维背后的理论;
- 获得对其他创意方法的概述和理解;
- 尝试创建自己的方法。

教学模式

- 工作坊
- 研讨会

学习目标和能力培养

- 了解设计思维?
- 设计思维过程是如何组织和执行的?
- 设计思维过程的必要工具;
- 设计思维过程的结果是什么?
- 其他可用于理论和实践的创造性方法是什么?
- 问卷、绘图和问题框架的使用。

单元总结和考核方式

成果展示，建立一个自己的设计思维工作坊

参考书目/文献

待定

必要的基础设施和设备

笔记本电脑

参考资料和网页链接

待定

单元 2　协作和参与方法

(单元编号: BA FC 4.2)

内容

- 什么是“以用户为中心”或“以人为中心”?
- 将用户纳入创作过程的重要性和价值;
- 以用户为中心和参与式方法的各类概述;
- 利益相关者和经验管理;
- 设计和建筑的社会功能是什么?

教学模式

- 工作坊
- 研讨会
- 角色扮演

学习目标和能力培养

- 什么是“以用户为中心”?
- 如何定义“用户”?
- 参与过程的结果是什么?
- 如何在自己的工作中利用用户的需求、经验和知识?
- 如何理解一个问题?
- 如何解决问题?
- 如何建立参与式用户包容性研讨会?
- 需要什么工具和方法?
- 问卷、绘图和框架;
- 促进用户研讨会的成果;
- 软件原型设计、案例建模、框架。

单元总结和考核方式

- 以用户为导向，建立自己的工作坊;
- 工作坊测试

参考书目/文献

待定

必要的基础设施和设备

笔记本电脑

参考资料和网页链接

待定

子课程 5: 技能、方法和工具 1

学分: ECTS:5　哈工大学分:2.5

必修或选修: 必修

课程培养目标与能力

- 初步的绘画和素描技巧;
- 锻炼和训练绘图、渲染、素描和打印技能;
- 使用草图快速表达想法或概念;
- 可视化、平面和透视的二维、三维技术;
- 必要的材料、技术和工具。

单元

绘图、渲染和素描、打印

教学模式与方法

- 讲座
- 工作坊
- 实践

目标实践技能

- 成为熟练的沟通者，使用一套插图和绘画技巧;
- 增强自己的表达方式。

目标理论与思维能力

- 理解手绘背后的感知力;
- 二维和三维设计图的区别;
- 体现自我的日常素描风格。

目标科学技能

能将绘图作为一种信息和交流工具

子课程考核方式

成果展示

单元 1　绘图、渲染和素描、打印

(单元编号: BA FC 5.1)

师资配备

熟练的设计/建筑绘图员

内容

- 密集的绘画实践;
- 三维和二维图纸;
- 透视、交叉和平面理论;
- 使用绘图工具、技术和媒介;
- 对于不同任务，我使用哪种绘画风格或技术?
- 草图和技术图纸有什么区别?
- 形成个人表达;
- 草图作为想法和概念的快速呈现;
- 手绘图和 CAD 的区别。

教学模式

- 实践

学习目标和能力培养

- 成为一名技艺精湛、德才兼备的绘图员;
- 透视图、平面图、剖面图和立面图;
- 草图、平面图和效果图的目的是什么?
- 何时以及如何在您的创作过程中使用它?

单元总结和考核方式

个人作品集，包括所有手工制作的图纸、插图、草图、效果图。

参考书目/文献

待定

必要的基础设施和设备

笔记本电脑

参考资料和网页链接

待定

Interdisciplinary Foundation Course II

Course code: SDFC2002 **Course name**: Interdisciplinary Foundation Course II

Credit points: ECTS 5 Chinese: 2.5

Subjects related: Architecture, Design

Pre-requirement for the course: None

Faculty or department: SISD

Mandatory or elective: Mandatory

Teachers in charge of the Course:

Course Description（about 200 words）

The course is a new curriculum that is a combination or fusion of different disciplines that are intrinsically linked, focusing on developing students' basic skills, critical thinking, problem-solving, library and information use, creative thinking, and art performance. Students understand the importance of choosing materials, colors, and light effects, and know the interaction and overall effect of light, color, and materials. Based on multi-perspectives, sampling knowledge, risk and opportunity analysis, data sampling, etc., master the scientific basis of interdisciplinary and be familiar with the methods, advantages, disadvantages, and complexities of interdisciplinary research. Interpret sustainable design strategies using technology and other disciplines.

Sub-course 1: Material, colour and light

Credit points: ECTS:3 Chinese:1.5

Sub-course code: BA FC 9

Mandatory or elective: Mandatory

Learning objectives/aims and competencies

- This module handles important aspects for Architecture and Design: the use of Material, Colour and Light;
- In applied and theoretical contributions the module gives Architects and Designers a better understanding of the importance of selecting material, colour and the impact of light;
- It transfer knowledge, so that Designers and Architects are able to make use of Material, Colour and Light in a professional way.
- It gives an insight of sustainability, especially on the use of Material, Resources, Energy and Environment.

Units

1 Material

2 Color

3 Light

Teaching and learning methods and formats

- Lectures
- Workshop

Envisaged practical skills

- Practical and professional use and application of Material, Colour and Light.
- Understand the mutual influence and the overall effect between light, colour and material.

Envisaged theoretical and reflective skills

- Colour Theory
- Material Knowledge
- Light Theory

Envisaged scientific skills

- Science of Perception
- The Human Sense

Sub-courses conclusion and proof of performance

Project

Unit 1 Material

(code: BA FC 9.1)

Profile of lecturer(s)

Material Expert

Content

- The range of Material for Architecture and Design;
- Different Categories of Materials;
- Use of Materials in Design and Architecture;
- Sustainability factor of Materials;
- Material origin;
- Raw material, processing and
- Production processes;
- Sourcing of Materials;
- Material and Surface;
- Culture of Material.

Teaching and learning methods and formats

- Lectures
- Workshop
- Exercises

Learning objectives/aims and competencies

- Student understand the use of Materials for Design and Architecture in different purposes, scale and treatment;
- They now a wide range of Materials
- Students becoming experts in using Materials for specific purposes and needs;
- They know advantages and disadvantages of Materials.

Unit conclusion and proof of performance

Set up a research project

Bibliography / literature

Will be provided

Necessary infrastructure and equipment

SISD Lab

Necessary student equipment

Laptop

References and web links

Will be provided

Unit 2 Colour

(code: BA FC 9.2)

Profile of lecturer(s)

Colour Expert

Content

- Colour application on Objects and Buildings;
- “real” Colour and applied colour;
- Colour Systems;
- Meaning of Colour;
- Colour as cultural value.

Teaching and learning methods and formats

- Lectures
- Workshop
- Exercises

Learning objectives/aims and competencies

- Students have an understanding of the different colour systems and colour cultures;
- They can apply colour in a professional way;
- They make professional use of colour in their projects;
- They have a professional vocabulary for colour and colour applications.

Unit conclusion and proof of performance

Set up a colour project

Bibliography / literature

Will be provided

Necessary infrastructure and equipment

SISD Lab

Necessary student equipment

Laptop

References and web links

None

Unit 3 Light

(number: BA FC 9.3)

Profile of lecturer(s)

Light Expert

Content

- Light as source for everything;
- Different light concepts;
- Measuring light;
- Experimenting with light and light sources;
- Defining light.

Teaching and learning methods and formats

- Lectures
- Workshop
- Exercises

Learning objectives/aims and competencies

- Knowledge Natural and Artificial Light Sources;
- Express different light qualities in your project;
- Integrate light for the own project.

Unit conclusion and proof of performance

Set up a lighting project

Bibliography / literature

Will be provided

Necessary infrastructure and equipment

SISD Lab

Necessary student equipment

Laptop

References and web links

None

Sub-course 2: Digital culture-analog culture–interdisciplinarity

Credit points: ECTS:2 Chinese:1

Sub-course code: BA FC 6

Mandatory or elective: Mandatory

Learning objectives/aims and competencies

- Understand the differences of Analogand digital processes and tools;
- Know the strengths and weaknesses of Analogand digital working formats;
- Know the strengths and weaknesses of interdisciplinary working formats;
- Master complexity with the help of technology and the integration of other disciplines;
- Setup own working formats as workshops or expert sessions.

Units

1 Digital and Analog

2 Interdisciplinary working formats

Teaching and learning methods and formats

- Lectures
- Seminars
- Workshop

Envisaged practical skills

- Make use of Analog and digital technologies in you individual process
- Understand the options and limitations of toolsets and methods;
- Master interdisciplinary working environments;
- Framing problems and expectations;
- Open dialogue with other disciplines, understand their role and responsibility.

Envisaged theoretical and reflective skills

- Understand the underlying theory of digital and Analog formats;
- Understand the impact of tools on results and vice versa;
- Know the theory behind interdisciplinary working formats.

Envisaged scientific skills

- Know the scientific fundamentals of Analog and digital formats: efficiency, strategy, purpose and effect;
- Know the scientific fundamentals of interdisciplinarity: multiple perspective, sampling knowledge, risk and opportunity analysis, data sampling.

Sub-courses conclusion and proof of performance

- Project exploration
- Project definition and setup

Unit 1 Interdisciplinary working formats

(number: BA FC 6.1)

Profile of lecturer(s)

Interdisciplinary experienced Designer, Architect or Manager.

Content

- Why leads interdisciplinarity to better results?
- Understand the strengths and weaknesses of disciplinarity and interdisciplinarity;
- Examples of interdisciplinary work and results in practice;
- Impact of different methods, technologies, cultures and artefacts;
- Using risk analysis and common data spaces for interdisciplinary setting;
- The difference of the tangible and the non-tangible;
- Shape common ground and understanding for interdisciplinary processes;
- Be aware of different languages, education and aims in an interdisciplinary process;
- Bridging the disciplinary gap between digital and Analog with technologies as: Immersion, 3D Renderings, 3D printing.

Teaching and learning methods and formats

- Lectures
- Workshop
- Exercises

Learning objectives/aims and competencies

- Organize interdisciplinary working formats;
- Leading an interdisciplinary team, shaping team culture;
- Prepare and setup workshops and working groups;
- Understand different thinking and working cultures, methods and tools;
- Learn to work inclusive and structured;
- Include stakeholder management and expectation;
- Make use of different disciplinary expertise for your process;
- Lead an interdisciplinary process, transfer results.

Unit conclusion and proof of performance

- Setting up an interdisciplinary approach;
- Define the agenda for interdisciplinary formats.

Bibliography / literature

Will be provided

Necessary infrastructure and equipment

None

Necessary student equipment

Laptop

References and web links

None

Unit 2 Digital and analog

(number: BA FC 6.2)

Profile of lecturer(s)

Experienced Designer or Architect, using of both Digital and Analog methods in Theory and practice.

Content

- Digital and Analog as cognitive models;
- History and future of Analog and Digital processes;
- Impact of Technologies on Artefacts and Buildings;
- Understanding different representations methods of the “tangible” and the “non-tangible”;
- Bridging the gap between the “tangible” and the “non-tangible”; by technologies as Immersion, Photorealistic, Renderings, 3D Printing, Rapid Prototyping, Craft Skills etc;
- Scale, Quantity and Quality of procedures and methods.

Teaching and learning methods and formats

- Lectures
- Workshop
- Exercises

Learning objectives/aims and competencies

- Learn about strengths and weaknesses of Analogand digital procedures, methods and formats;
- Estimate and understand the different qualities and appearances of the “tangible” and the “non-tangible”;
- Have a set of method related options at your disposal
- Understand and master the required knowledge;
- Estimate and evaluate results of the different approaches.

Unit conclusion and proof of performance

Present your own approach

Bibliography / literature

Will be provided

Necessary infrastructure and equipment

None

Necessary student equipment

Laptop

References and web links

None

跨专业基础课程 II

课程代码: SDFC2002　　**课程名:** 跨专业基础课程 II

学分: 欧方 5 学分　中方 2.5 学分

开设专业: 建筑学、设计学

先修课程: 无

负责院系: SISD

必修或选修: 必修

负责教师:

课程描述（约 200 字）

该课程由一些有着内在联系的不同学科合并或融合而成，重在培养学生的基本技能、批判性的思考能力、解决问题的能力、利用图书馆和信息的能力、创造性思维及艺术表现能力。可让学生更好地理解选择材料、颜色和光线影响的重要性，了解光、色和材质之间的相互影响和整体效果。并基于多视角、抽样知识、风险和机会分析、数据抽样等掌握跨学科的科学基础，熟悉跨学科研究的方法、优缺点和复杂性。借助技术和其他学科，解读可持续性设计策略。

子课程 1: 材料、颜色和光线

学分: ECTS:3　哈工大学分:1.5

必修或选修: 必修

课程培养目标与能力

- 该课程处理建筑和设计的重要方面：材料、颜色和光线的使用;
- 在应用和理论贡献方面，该课程让建筑师和设计师更好地理解选择材料、颜色和光线影响的重要性;
- 使设计师和建筑师能够以专业的方式使用材料、颜色和光;
- 它提供了对可持续性的见解，尤其是在材料、资源、能源和环境的使用方面。

单元

1 材料

2 颜色

3 光线

教学模式与方法

- 讲座
- 工作坊

目标实践技能

- 材料、颜色和光的实际和专业应用;
- 了解光、色和材质之间的相互影响和整体效果。

目标理论与思维能力

- 色彩理论
- 材料知识
- 光理论

目标科学技能

- 感知觉科学
- 人类感官

子课程考核方式

课程项目

单元 1　材料

(单元编号: BA FC 9.1)

师资配备

材料专家

内容

- 建筑和设计材料的范围;
- 不同类别的材料;
- 在设计和建筑中使用材料;
- 材料的可持续性因素;
- 材料来源;
- 原料、加工及生产过程;
- 材料采购;
- 材料和表面;
- 物质文化。

教学模式

- 讲座
- 工作坊
- 实践

学习目标和能力培养

- 学生了解设计和建筑材料在不同目的、规模和处理中的使用;
- 可使用各种各样的材料，成为将材料用于特定目的和需求的专家;
- 知道材料的优点和缺点。

单元总结和考核方式

设立一个研究项目

参考书目/文献

待定

必要的基础设施和设备

SISD 实验室；笔记本电脑

参考资料和网页链接

待定

单元 2　颜色

(单元编号: BA FC 9.2)

师资配备

色彩专家

内容

- 物体和建筑物的颜色应用;
- “真实”颜色和应用颜色;
- 色彩系统;
- 颜色的含义;
- 色彩的文化价值。

教学模式

- 讲座
- 工作坊
- 实践

学习目标和能力培养

- 使学生了解不同的色彩系统和色彩文化;
- 以专业的方式应用颜色;
- 在项目中专业地使用颜色;
- 使用专业的色彩和色彩应用词汇。

单元总结和考核方式

设立一个颜色项目

参考书目/文献

待定

必要的基础设施和设备

SISD 实验室，笔记本电脑

参考资料和网页链接

待定

单元 3　光

(单元编号: BA FC 9.3)

师资配备

灯光专家

内容

- 光是万物之源;
- 不同的灯光概念;
- 测量光线;
- 试验光和光源;
- 定义光。

教学模式

- 讲座
- 工作坊
- 实践

学习目标和能力培养

- 认识自然和人造光源;
- 在项目中表达不同光的质感;
- 在项目中使用光。

单元总结和考核方式

设立一个光线项目

参考书目/文献

待定

必要的基础设施和设备

SISD 实验室，笔记本电脑

参考资料和网页链接

待定

子课程 2: 数字文化-模拟文化-跨学科

学分: ECTS:2　哈工大学分:1

必修或选修: 必修

课程培养目标与能力

- 了解模拟数字流程和工具的差异;
- 了解模拟数字工作模式的优缺点;
- 了解跨学科工作形式的优缺点;
- 借助技术和其他学科的融合掌握复杂性;
- 形成工作坊或专家会议的工作模式。

单元

1 数字和模拟

2 跨学科工作形式

教学模式与方法

- 讲座
- 研讨会
- 作坊

目标实践技能

- 在个人工作流程中使用模拟和数字技术;
- 了解工具和方法的选项和限制;
- 胜任跨学科工作环境;
- 提出问题和期望;
- 与其他学科公开对话，了解他们的角色和责任。

目标理论与思维能力

- 了解数字和模拟的基本理论;
- 了解工具与结果的相互影响;
- 了解跨学科工作形式背后的理论

目标科学技能

- 了解模拟和数字的科学基础：效率、策略、目的和效果;

- 了解跨学科的科学基础：多视角、抽样知识、风险和机会分析、数据抽样。

子课程考核方式

- 项目探索
- 项目开题

单元 1　跨学科工作形式

(单元编号: BA FC 6.1)

师资配备

跨学科经验丰富的设计师、建筑师或经理。

内容

- 为什么跨学科会带来更好的结果?
- 了解学科和跨学科的优势和劣势;
- 跨学科工作和实践结果的例子;
- 不同方法、技术、文化和人工制品的影响;
- 使用风险分析和通用数据空间进行跨学科设置;
- 有形与无形的区别;
- 理解形成跨学科过程的共同点;
- 在跨学科过程中了解不同的语言、教育和目标;
- 通过以下技术缩小数字和模拟之间的学科差距：沉浸式、三维渲染、三维打印。

教学模式

- 讲座
- 工作坊
- 实践

学习目标和能力培养

- 组织跨学科工作形式;
- 领导跨学科团队，塑造团队文化;
- 准备和建立研讨会和工作组;
- 了解不同的思维和工作文化、方法和工具;
- 学会包容和结构化的工作;
- 对利益相关者的管理和期望;
- 使用不同的学科专业知识;
- 领导一个跨学科的过程，转移成果。

单元总结和考核方式

- 建立跨学科方法;
- 确定跨学科模式的议程

参考书目/文献

待定

必要的基础设施和设备

笔记本电脑

参考资料和网页链接

待定

单元 2　数字和模拟

(单元编号: BA FC 6.2)

师资配备

经验丰富的设计师或建筑师，在理论和实践中使用数字和模拟方法。

内容

- 数字和模拟作为认知模型;
- 模拟和数字过程的历史和未来;
- 技术对人工制品和建筑物的影响;
- 了解“有形”和“无形”的不同表现方式;
- 通过沉浸式、真实感、渲染、三维打印、快速原型制作、工艺技能等技术，缩小“有形”与“无形”之间的差距;
- 程序和方法的规模、数量和质量。

教学模式

- 讲座
- 工作坊
- 实践

学习目标和能力培养

- 了解模拟和数字程序、方法和格式的优缺点;
- 估计和理解“有形”和“无形”的不同品质和外观;
- 有一组方法相关的选项供使用
- 了解并掌握所需知识;
- 估计和评估不同方法的结果。

单元总结和考核方式

提出自己的方法

参考书目/文献

待定

必要的基础设施和设备

笔记本电脑

参考资料和网页链接

待定

Interdisciplinary Foundation Course III

Course code: SDFC2003 **Course name:** Interdisciplinary Foundation Course III

Credit points: ECTS 8 Chinese: 4

Subjects related: Architecture, Design

Pre-requirement for the Course: None

Faculty or Department: SISD

Mandatory or elective: Mandatory

Teachers in charge of the Course:

Course Description（about 200 words)

The course links the use of 2D and 3D software with the possibilities of SISD labs and workshops. Train students to utilize the different digital design and production methods available. Students learn how to transfer a digital result into production, how to change it, how to produce and evaluate it. The course focus on combining basic skills training with architectural understanding; combining creativity with comprehensive problem-solving ability; combining architectural knowledge with professional theoretical methods; combining design process with professional expression skills; combining design practice with comprehensive design ability. Make students' knowledge structure and knowledge system into a closely linked whole, recognize and solve problems with a comprehensive point of view.

Sub-course 1: Skills, methods and tools 2

Credit points: ECT:4 Chinese:2

Sub-course code: BA FC 8

Mandatory or elective: Mandatory

Learning objectives/aims and competencies

This module connects the use of 2D and 3D Software with the possibilities of the SISD Lab and Workshop. It trains students to make use of the different digital design- and production methods available. It learns how to transfer a digital result to production, how to alter it, how to produce and assess it. It focuses on the workflow from idea and concept to the final physical object.

- Introduction in a Design, Architecture Software Packages for 2D and 3D;
- Using and applying the software for projects and production;
- Basic Introduction in the use of the SISD Lab/Workshop. Learn to use the SISD facilities independently;
- Make use of the hand- or digital fabrication- or prototyping methods available in the SISD Lab/Workshop;
- Learn about digital to physical workflows in Design and Architecture processes.

Units

1 CAD 2D and 3D

2 Basic Introduction in the SISD Lab and Workshop

Teaching and learning methods and formats

Lectures, Workshops

Pre-requirements for this module

Module: Skills, Methods and Tools 1

Envisaged practical skills

- Learn to use Software for 3D and 2D Design purpose as Graphic Design, Information Design, Industrial Design and Architecture;
- Understand the principle functions and the limits of software;
- Understand the difference to Analog design methods;

- Understand the workflow for production in small (Prototype) and large scale (Mass Production - Industry)
- Transfer of Digital results to the SISD Lab/Workshop for Prototyping or Modelbuilding;
- Reverse Engineering Technologies;
- Train and use basic Workshop Technologies;
- Train and use digital fabrication methods.

Envisaged theoretical and reflective skills

- Understand the variety of and the purpose of digital tools;
- Understand the variety of and the purpose of physical tools and hand-production methods;
- Understand the impact of tools on results and vice versa.

Envisaged scientific skills

- Assess and evaluate the options and limitations of methods;
- Rate the impact of a specific tool towards the result;
- Get scientific expertise in workflow methods.

Sub-course conclusion and proof of performance

Project presentation

Unit 1 Basic introduction in the SISD lab and workshop

(number: BA FC 8.1)

Profile of lecturer(s)

SISD Lab and Workshop Crew.

Content

- Overview the SISD Lab and Workshop equipment;
- Rules of use of the SISD Lab and Workshop;
- Health and Safety regulations;
- Basic categories of production methods, tools and processes available in the SISD Lab;
- Training on different tools, machinery and methods;
- Workflows in the lab;
- Available materials, payment procedure;
- Available digital production tools and methods;
- Rapid Prototyping methods.

Teaching and learning methods and formats

- Lectures
- Exercises

Learning objectives/aims and competencies

- Safe use of equipment;
- Prepare and plan your Lab Project before starting;
- Hand- and craft skills;
- Train on different machinery and methods;
- Select the right method and material for a given task;
- Use of digital methods;
- Use of Analog methods;
- Work independently.

Unit conclusion and proof of performance

Produce different CAD training pieces.

Bibliography / literature

Will be provided

Necessary infrastructure and equipment

None

Necessary student equipment

Laptop

References and web links

None

Sub-course 2: Design and Architecture History 2

Credit points: ECT:3 Chinese:1.5

Sub-course code: BA FC 7

Mandatory or elective: Mandatory

Learning objectives/aims and competencies

This is the second part of the history of design and architecture. It connects and continues Part 1.

Units

Design and Architecture History Part 2

Teaching and learning methods and formats

- Lectures
- Seminars

Pre-requirements for this module

Design and Architecture History Part 1

Envisaged practical skills

None

Envisaged theoretical and reflective skills

- Basic knowledge and understanding of the history of design and architecture and the different influences:
  Historical;
  Political;
  Technical;
  Cultural;
  Social;
  Global/Local。
- Explaining the underlying theory and methods. Drawing insights from the history for todays and the future. Understanding the historical development, leading to current- and future results and theories. Important cultural turns and movements as arts and craft, modernism, postmodernism, deconstruction, functional design.

- Important institutions, persons and offices/agencies. Important milestones.

Envisaged scientific skills

Reading and understanding text about the history of design and architecture, drawing own conclusions.

Sub-course conclusion and proof of performance

Writing a historical essay

Sub-course 3: Final foundation project

Credit points: ECT:1 Chinese:0.5

Sub-course code: BA FC 10

Mandatory or elective: Mandatory

Learning objectives/aims and competencies

- At the end of the foundation course, students present an own study project. The project reflect and summarises not all, but some contents of the interdisciplinary Foundation Course;
- Beforehand, the faculty defines a topic the field of practise and theory knowledge and reports the expected results to the students;
- The Final Project shows the ability of the students to master a Design or Architecture task with individual skills, tools, methods and technologies;
- Students are able to reflect about the outcome and their learning achievements.
- The successful Final Foundation Project qualifies for the entry in a Master Program.

Units

1 Final Foundation Project

Teaching and learning methods and formats

- Self-led project, either in Information/Visual Design, in Industrial Design or Architecture/Urban Planning.
- Integrating all learned competencies from the Interdisciplinary Foundation Course.

Pre-requirements for this module

All Modules of the Basic Foundation Course successfully completed.

Envisaged practical skills

None

Envisaged theoretical and reflective skills

None

Envisaged scientific skills

None

Subcourses conclusion and proof of performance

- Project presentation;
- Project documentation;
- Self-assessment and reflection

跨专业基础课程 III

课程代码: SDFC2003　　**课程名:** 跨专业基础课程 III

学分: 欧方 8 学分　中方 4 学分

开设专业: 建筑学、设计学

先修课程: 无

负责院系: SISD

必修或选修: 必修

负责教师:

课程描述（约 200 字）

该课程将二维和三维软件的使用与 SISD 实验室和工作坊联系起来。训练学生使用不同的数字设计和生产方法。学习如何将数字结果转移到生产中，如何改变它，如何生产和评估它。注重基本功训练与建筑理解相结合；创造力与综合解决问题能力相结合；建筑知识与专业理论方法相结合；设计过程与专业表达技能相结合；设计实践与综合设计能力相结合等五个方面。使学生的知识结构和知识体系成为一个紧密联系的整体，以全面的观点认识和解决问题。

子课程 1: 技能、方法和工具 2

学分: ECTS:4　哈工大学分:2

必修或选修: 必修

课程培养目标与能力

- 该课程将二维和三维软件的使用与 SISD 实验室和研讨会的可能性联系起来。训练学生利用不同的数字设计和生产方法。学习如何将数字结果转移到生产中，如何改变它，如何生产和评估它。专注于从想法和概念到最终实体对象的工作流程。
- 二维和三维设计架构软件包简介;
- 在项目和生产中使用和应用软件;
- 对 SISD 实验室/工作坊使用的基本介绍，学会独立使用 SISD 设施;
- 在 SISD 实验室/工作坊中使用手工、数字制造或原型制作方法;
- 了解设计学和建筑学的数字、物理工作流程。

单元

1 二维和三维 CAD

2 SISD 实验室和工作坊的基本课程设计演讲与展示

教学模式与方法

- 讲座
- 工作坊

课程先决要求

课程: 技能、方法和工具 1

目标实践技能

- 学习使用软件进行三维和二维设计，如平面设计、信息设计、工业设计和建筑设计;
- 了解软件的主要功能和局限性;
- 了解与模拟设计方法的区别;
- 了解小型（原型）和大规模（大规模生产-工业）生产的工作流程;
- 将数字结果传输到 SISD 实验室/车间进行原型设计或建模;
- 逆向工程技术;
- 培训和使用基本的车间技术;
- 训练和使用数字制造方法。

目标理论与思维能力

- 了解数字工具的种类和用途;
- 了解实物工具、手工制作方法的种类和用途;
- 了解工具对结果的影响。

目标科学技能

- 评估和评价方法的选择和局限性;
- 评估特定工具对结果的影响;
- 获得工作流程方法的科学专业知识。

子课程考核方式

课程项目

单元 1　SISD 实验室和工作坊的基本课程设计演讲与展示

(单元编号: BA FC 8.1)

师资配备

SISD 实验室和车间工作人员

内容

- SISD 实验室和车间设备概览;
- SISD 实验室和工作坊的使用规则;
- 健康和安全法规;
- SISD 实验室可用的生产方法、工具和流程的基本类别;
- 不同工具、机械和方法的培训;
- 实验室的工作流程;
- 可用材料、交付程序;
- 可用的数字制作工具和方法;
- 快速原型制作方法。

教学模式

- 讲座
- 实践

学习目标和能力培养

- 设备的安全使用;
- 开始实验项目前的准备和计划;
- 手工艺技能;
- 培训使用不同的机器和方法;
- 为给定的任务选择正确的方法和材料;
- 使用数字方法;
- 使用模拟方法;
- 独立工作。

单元总结和考核方式

制作不同的 CAD 训练作品

参考书目/文献

待定

必要的基础设施和设备

笔记本电脑

参考资料和网页链接

待定

子课程 2: 设计与建筑史 2

学分: ECTS:3　哈工大学分:1.5

必修或选修: 必修

课程培养目标与能力

设计和建筑史课程的第二部分，连接并延续第一部分。

单元

1 设计与建筑史 2

教学模式与方法

- 讲座
- 研讨会

课程先决要求

设计与建筑史第 1 部分

目标实践技能

无

目标理论与思维能力

- 对设计、建筑史的基本知识和理解，以及以下不同影响:
  历史;
  政治;
  技术;
  文化;
  社会;
  全球/本地。
- 解释基本理论和方法。从今天和未来的历史中汲取见解。了解历史发展，当前和未来的结果和理论。重要的文化转向和运动，如工艺美术、现代主义、后现代主义、解构主义、功能设计。
- 重要的研究所、人员和办公室/机构，学科历史上重要的里程碑。

目标科学技能

阅读和理解有关设计和建筑历史的资料，并进行总结。

子课程考核方式

撰写历史主题的论文

子课程 3: 跨专业基础课程设计

学分: ECTS:1　哈工大学分:0.5

必修或选修: 必修

课程培养目标与能力

- 在基础课程结束时，学生会展示自己的个人项目。项目反映和总结的不是跨学科基础课程的全部，而是部分内容;
- 教师事先定义实践领域和理论知识的主题，并将预期结果报告给学生;
- 项目展示了学生利用个人技能、工具、方法和技术掌握设计或建筑任务的能力;
- 能够反映学生的学习成果和他们的学习成就。
- 成功的跨专业基础课程设计可使学生获得进入硕士课程学习的资格。

单元

1 跨专业基础课程设计

教学模式与方法

- 在信息/视觉设计、工业设计或建筑/城市规划领域的学生个人项目;
- 整合从跨学科基础课程中学到的所有能力。

课程先决要求

完成所有基础课程。

目标实践技能

无

目标理论与思维能力

无

目标科学技能

无

子课程考核方式

- 项目课程设计演讲与展示;

- 项目文件;
- 自我评估和反思。

L1 PROJECT 1 "TOOL"

Course Code: SDID2003 **Course Name:** L1 PROJECT 1 "TOOL"

Credit points: ECTS: 5 Chinese: 3

Subjects related: Industrial Design

Pre-requirement for the Course: None

Faculty or Department: SISD

Mandatory or elective: Mandatory

Teachers in charge of the Course:

Course Description（about 200 words）

Topics in this course include common tools for redesign, general trends in product design looks, and new materials. Among them, commonly used tools for redesign include cordless screwdrivers, electric toothbrushes or food processors, etc. The general trend of product design appearance includes topics such as the combination of sustainable development and lifestyle, and new materials include ecological materials, lightweight and stable new materials, durable materials, etc. Through design theory, prototyping, engineering design, technical training and other methods, we assign practice-oriented specific tasks to students, cultivate students' design self-examination ability. Students can evaluate and reflect on different design methods, and form a work capable of qualitative argumentation high-level design capabilities after learning this course.

Learning objectives/aims and competencies

- Learning, assessing, designing: Practice-oriented concrete tasks enable reflected development stages in the process (review of own designs).
- Theory, engineering, technology and other important disciplinary courses (BASICS) are directly linked to the projects in order to learn and deepen basic knowledge specific to the topic.

Units

Tool / Pro 1 Basics

Teaching and learning methods and formats

Lectures, inputs, exercises, group and individual discussions, presentations, research in projects and theory courses.

Envisaged practical skills

CAD, prototyping, design methods.

Envisaged theoretical and reflective skills

Reflection and evaluation on different approaches to solutions. Technical and theoretical insights that support, influence and make the design process assessable.

Envisaged scientific skills

Learning knowledge that allows to work qualitatively and argumentatively at a high level of design.

Course conclusion and proof of performance

Final design (CAD and/or prototype), presentation, documentation, term paper (theory), class attendance.

Unit : L1 PROJECT 1 "TOOL"

(code: BA ID 1.1)

Profile of lecturer(s)

- Lecturer for design practice
- Lecturer for design theory
- Lecturer for 3D-prototyping
- Lecturer for engineering

Content

In Tool (3 weeks) .

One product theme is given for common and well-known tools to redesign:

for example, this could be a cordless screwdriver, an electric toothbrush, or a food processor.

The accompanying courses:

- Design-Theory (1/2 Day Per Week)
- Prototyping / 3d Print (1/2 Day Per Week)
- Engineering (1/2 day per week)

Support and complement the practical course in terms of content.

Teaching and learning methods and formats

- Lectures,
- Inputs,
- Exercises,
- Group and individual discussions,
- and presentations.

Learning objectives/aims and competencies

- Learning, assessing, designing: Practice-oriented concrete tasks enable reflected development steps in the process (review of own designs).
- The accompanying basic courses are directly linked to the projects in order to learn and deepen topic-specific theoretical and technical basic knowledge.

Unit conclusion and proof of performance

- Final design (CAD and/or prototype),

- Presentation,
- Documentation,
- Term paper (theory),
- Class attendance.

Bibliography / literature

Will be provided

Necessary infrastructure and equipment

- Computer,
- 3D printer,
- Prototyping workshop,
- Lecture rooms,
- Studio rooms.

Necessary student equipment

Computer

References and web links

Will be provided

“工具设计”专题设计工作坊

课程代码: SDID2003　　**课程名:** “工具设计”专题设计工作坊

学分: 欧方 5 学分　中方 3 学分

开设专业: 工业设计

先修课程: 无

负责院系: SISD

必修或选修: 必修

负责教师:

课程描述（约 200 字）

本课程主题包括用于再设计的常用工具、产品设计外观的总体趋势、新材料这三方面。其中，用于再设计的常用工具包括无绳螺丝刀、电动牙刷或食品加工机等，产品设计外观的总体趋势包括可持续发展与生活方式相结合等话题，新材料包括生态材料、轻质稳定的新材料、耐用性材料等。通过设计理论、原型设计、工程设计、技术类培训等方法，给学生布置以实践为导向的具体任务，培养学生的设计自查能力，对不同设计方法进行评估和反思，形成能够进行定性论证工作的高水平设计能力。

课程培养目标与能力

- 学习、评估、设计：布置以实践为导向的具体任务，并使学生能够在设计过程中进行反思（设计自查能力）。
- 理论、工程、技术和其他重要学科课程（基础知识）直接与设计项目相关联，以便学习并深化特定主题的基础知识。

单元

“工具设计”专题设计工作坊

教学模式与方法

讲座、实践、练习、小组和个人讨论、演讲、项目研究和理论课程。

目标实践技能

CAD，原型设计，设计方法。

目标理论与思维能力

对不同设计解决方法的反思和评价。学习支持、影响设计过程及可评估的技术和理论。

目标科学技能

形成能够进行定性和论证工作的高水平设计能力。

考核方式

期末设计（CAD 和/或原型设计）、演示、文案写作、课程论文（理论）、课堂考勤。

单元　“工具设计”专题设计工作坊

（单元编号：BA ID 1.1）

师资配备

- 设计实践讲师
- 设计理论讲师
- 三维原型设计讲师
- 工程类课程讲师

内容

授课时长：3 周。

为常见工具进行重新设计的产品设计主题课程：例如，无绳螺丝刀、电动牙刷或食品加工机。

包含的课程内容:

- 设计理论（每周半天）
- 原型设计/三维打印（每周半天）
- 工程设计（每周半天）

在内容上支持和补充实践课程。

教学模式

- 讲座
- 理论灌输
- 练习
- 小组讨论和个人讨论
- 演讲

学习目标和能力培养

- 学习、评估、设计：布置以实践为导向的具体任务，并使学生能够在设计过程中进行反思（设计自查能力）。
- 所附的基础课程与设计项目直接相关联，以便学习并深化与特定主题相关的理论和技术基础知识。

单元总结和考核方式

- 期末设计（CAD 和/或原型设计）
- 演示

- 文案写作
- 课程论文（理论）
- 课堂考勤

参考书目/文献

待定

必要的基础设施和设备

- 电脑
- 三维打印机
- 原型工作坊
- 教室
- 工作室

参考资料和网页链接

待定

L1 PROJECT 2 "LIFESTYLE"

Course Code: SDID2004 **Course Name:** L1 PROJECT 2 "LIFESTYLE"

Credit points: ECTS:5 Chinese: 3

Subjects related: Industrial Design

Pre-requirement for the Course: None

Faculty or Department: SISD

Mandatory or elective: Mandatory

Teachers in charge of the Course:

Course Description（about 200 words）

Topics in this course include common tools for redesign, general trends in product design looks, and new materials. Among them, commonly used tools for redesign include cordless screwdrivers, electric toothbrushes or food processors, etc. The general trend of product design appearance includes topics such as the combination of sustainable development and lifestyle, and new materials include ecological materials, lightweight and stable new materials, durable materials, etc. Through design theory, prototyping, engineering design, technical training and other methods, we assign practice-oriented specific tasks to students, cultivate students' design self-examination ability. Students can evaluate and reflect on different design methods, and form a work capable of qualitative argumentation high-level design capabilities after learning this course.

Learning objectives/aims and competencies

- Learning, assessing, designing: Practice-oriented concrete tasks enable reflected development stages in the process (review of own designs).
- Theory, engineering, technology and other important disciplinary courses (BASICS) are directly linked to the projects in order to learn and deepen basic knowledge specific to the topic.

Units

Lifestyle / Pro 2 Basics

Teaching and learning methods and formats

Lectures, inputs, exercises, group and individual discussions, presentations, research in projects and theory courses.

Envisaged practical skills

CAD, prototyping, design methods.

Envisaged theoretical and reflective skills

Reflection and evaluation on different approaches to solutions. Technical and theoretical insights that support, influence and make the design process assessable.

Envisaged scientific skills

Learning knowledge that allows to work qualitatively and argumentatively at a high level of design.

Course conclusion and proof of performance

Final design (CAD and/or prototype), presentation, documentation, term paper (theory), class attendance.

Unit : L1 PROJECT 2 "LIFESTYLE"

(code: BA ID 1.2)

Profile of lecturer(s)

- Lecturer for design practice
- Lecturer for design theory
- Lecturer for 3D-prototyping
- Lecturer for technology

Content

In Lifestyle (3 weeks).
General trends that strongly influence the appearance of current products are used as the basis for an overarching theme.
This can be, for example, the tendency to make the technology of electronic devices barely or not at all visible externally (for example, Bluetooth speakers that have the shapes of lamps or vases). Sustainable topics are also increasingly merging with the topic of lifestyle (for example, in fashion it is becoming more and more important to also make sustainability "visible").
The accompanying courses:

- Design-Theory (1/2 Day Per Week)
- Prototyping / 3d Print (1/2 Day Per Week)
- Technology (1/2 Day Per Week)

Support and complement the practical course in terms of content.

Teaching and learning methods and formats

- Lectures,
- Inputs,
- Exercises,
- Group and individual discussions,
- Presentations.

Learning objectives/aims and competencies

- Learning, assessing, designing: Methodical and analytical studies of trends support the own way of acting in order to be able to integrate new technical and visual possibilities as a success factor in the design process.

- The accompanying basic courses are directly linked to the projects in order to learn and deepen topic-specific theoretical and technology basic knowledge.

Unit conclusion and proof of performance

- Final design (CAD and/or prototype),
- Presentation,
- Documentation,
- Term paper (theory),
- Class attendance.

Bibliography / literature

Will be provided

Necessary infrastructure and equipment

- Computer,
- 3D printer,
- Prototyping workshop,
- Lecture rooms,
- Studio rooms

Necessary student equipment

Computer

References and web links

Will be provided

“生活方式”专题设计工作坊

课程代码: SDID2004　　**课程名:** “生活方式”专题设计工作坊

学分: 欧方 5 学分　中方 3 学分

开设专业: 工业设计

先修课程: 无

负责院系: SISD

必修或选修: 必修

负责教师:

课程描述（约 200 字）

本课程主题包括用于再设计的常用工具、产品设计外观的总体趋势、新材料这三方面。其中，用于再设计的常用工具包括无绳螺丝刀、电动牙刷或食品加工机等，产品设计外观的总体趋势包括可持续发展与生活方式相结合等话题，新材料包括生态材料、轻质稳定的新材料、耐用性材料等。通过设计理论、原型设计、工程设计、技术类培训等方法，给学生布置以实践为导向的具体任务，培养学生的设计自查能力，对不同设计方法进行评估和反思，形成能够进行定性论证工作的高水平设计能力。

课程培养目标与能力

- 学习、评估、设计：布置以实践为导向的具体任务，并使学生能够在设计过程中进行反思（设计自查能力）。
- 理论、工程、技术和其他重要学科课程（基础知识）直接与设计项目相关联，以便学习并深化特定主题的基础知识。

单元

“生活方式”专题设计工作坊

教学模式与方法

讲座、实践、练习、小组和个人讨论、演讲、项目研究、理论课程。

目标实践技能

CAD，原型设计，设计方法。

目标理论与思维能力

对不同设计解决方法的反思和评价。学习那些支持、影响设计过程及使其可评估的技术和理论。

目标科学技能

形成能够进行定性和论证工作的高水平设计能力。

考核方式

期末设计（CAD 和/或原型设计）、演示、文案写作、课程论文（理论）、课堂考勤。

单元　“生活方式”专题设计工作坊

（单元编号：BA ID 1.2）

师资配备

- 设计实践讲师
- 设计理论讲师
- 三维原型设计讲师
- 技术类课程讲师

内容

授课时长：3 周
课程主题为学习和研究强烈影响当前产品设计外观的总体趋势。
例如，使电子设备技术在外部几乎不可见或根本不可见的外观设计趋势（例如，具有灯或花瓶形状的蓝牙扬声器）。可持续发展的话题也越来越多地与生活方式的主题相结合（例如，在时尚领域，让可持续性“可见”也变得越来越重要）。
包含的课程内容：

- 设计理论（每周半天）
- 原型设计/三维打印（每周半天）
- 技术类课程（每周半天）

在内容上支持和补充实践课程。

教学模式

- 讲座
- 理论灌输
- 练习
- 小组讨论和个人讨论
- 演讲

学习目标和能力培养

- 学习、评估、设计：利用对趋势系统性的分析和判断支撑设计方式，以便能够整合新的技术和视觉可能性，作为设计过程中的成功因素。
- 所附的基础课程与设计项目直接相关联，以便学习并深化与特定主题相关的理论和技术基础知识。

单元总结和考核方式

- 期末设计（CAD 和/或原型设计）
- 演示
- 文案写作
- 课程论文（理论）
- 课堂考勤

参考书目/文献

待定

必要的基础设施和设备

- 电脑
- 三维打印机
- 原型工作坊
- 教室
- 工作室

参考资料和网页链接

待定

L1 PROJECT 3 "MATERIAL"

Course Code: SDID2005 **Course Name:** L1 PROJECT 3 "MATERIAL"

Credit points: ECTS: 7 Chinese: 5

Subjects related: Industrial Design

Pre-requirement for the Course: None

Faculty or Department: SISD

Mandatory or elective: Mandatory

Teachers in charge of the Course:

Course Description（about 200 words）

Topics in this course include common tools for redesign, general trends in product design looks, and new materials. Among them, commonly used tools for redesign include cordless screwdrivers, electric toothbrushes or food processors, etc. The general trend of product design appearance includes topics such as the combination of sustainable development and lifestyle, and new materials include ecological materials, lightweight and stable new materials, durable materials, etc. Through design theory, prototyping, engineering design, technical training and other methods, we assign practice-oriented specific tasks to students, cultivate students' design self-examination ability. Students can evaluate and reflect on different design methods, and form a work capable of qualitative argumentation high-level design capabilities after learning this course.

Learning objectives/aims and competencies

- Learning, assessing, designing: Practice-oriented concrete tasks enable reflected development stages in the process (review of own designs).
- Theory, engineering, technology and other important disciplinary courses (BASICS) are directly linked to the projects in order to learn and deepen basic knowledge specific to the topic.

Units

Material / Pro 3 Basics

Teaching and learning methods and formats

Lectures, inputs, exercises, group and individual discussions, presentations, research in projects and theory courses.

Envisaged practical skills

CAD, prototyping, design methods.

Envisaged theoretical and reflective skills

Reflection and evaluation on different approaches to solutions. Technical and theoretical insights that support, influence and make the design process assessable.

Envisaged scientific skills

Learning knowledge that allows to work qualitatively and argumentatively at a high level of design.

Course conclusion and proof of performance

Final design (CAD and/or prototype), presentation, documentation, term paper (theory), class attendance.

Unit : L1 PROJECT 3 "MATERIAL"

(code: BA ID 1.3)

Profile of lecturer(s)

- Lecturer for design practice
- Lecturer for 3D-prototyping
- Lecturer for engineering

Content

In Material (4 weeks).
Proven and new materials are investigated, which can contribute significantly to a successful product: For example, ecological materials (degradable materials), lightweight and stable materials for weight reduction during transport, durable materials in connection with new design trends.
The accompanying courses:

- Prototyping / 3d Print (1/2 day per week)
- Engineering (1/2 day per week)

Support and complement the practical course in terms of content.

Teaching and learning methods and formats

- Lectures,
- Inputs,
- Exercises,
- Group and individual discussions,
- Presentations.

Learning objectives/aims and competencies

- Learning, assessing, designing: Technical understanding that anchors a targeted use of specific materials in the design process and reinforces strategic thinking: The use of specific materials in a product can greatly influence a design and become a competitive advantage in the process.
- The accompanying basic courses are directly linked to the projects in order to learn and deepen topic-specific theoretical and technology basic knowledge.

Unit conclusion and proof of performance

- Final design (CAD and/or prototype),
- Presentation,
- Documentation,
- Term paper (theory),
- Class attendance.

Bibliography / literature

Will be provided

Necessary infrastructure and equipment

- Computer,
- 3D printer,
- Prototyping workshop,
- Lecture rooms,
- Studio rooms

Necessary student equipment

Computer

References and web links

Will be provided

“材料”专题设计工作坊

课程代码: SDID2005　　**课程名:** “材料”专题设计工作坊

学分: 欧方 7 学分　中方 5 学分

开设专业: 工业设计

先修课程: 无

负责院系: SISD

必修或选修: 必修

负责教师:

课程描述（约 200 字）

本课程主题包括用于再设计的常用工具、产品设计外观的总体趋势、新材料这三方面。其中，用于再设计的常用工具包括无绳螺丝刀、电动牙刷或食品加工机等，产品设计外观的总体趋势包括可持续发展与生活方式相结合等话题，新材料包括生态材料、轻质稳定的新材料、耐用性材料等。通过设计理论、原型设计、工程设计、技术类培训等方法，给学生布置以实践为导向的具体任务，培养学生的设计自查能力，对不同设计方法进行评估和反思，形成能够进行定性论证工作的高水平设计能力。

课程培养目标与能力

- 学习、评估、设计：布置以实践为导向的具体任务，并使学生能够在设计过程中进行反思（设计自查能力）。
- 理论、工程、技术和其他重要学科课程（基础知识）直接与设计项目相关联，以便学习并深化特定主题的基础知识。

单元

“材料”专题设计工作坊

教学模式与方法

讲座、实践、练习、小组和个人讨论、演讲、项目研究和理论课程。

目标实践技能

CAD，原型设计，设计方法。

目标理论与思维能力

对不同设计解决方法的反思和评价。学习那些支持、影响设计过程及使其可评估的技术和理论。

目标科学技能

形成能够进行定性和论证工作的高水平设计能力。

考核方式

终期设计（CAD 和/或原型设计）、演示、文案写作、课程论文（理论）、课堂考勤。

单元　“材料”专题设计工作坊

（单元编号：BA ID 1.3）

师资配备

- 设计实践讲师
- 三维原型设计讲师
- 工程类课程讲师

内容

授课时长：4 周

研究已有的和新的材料，将对一项成功的产品设计具有重要意义：例如，生态材料（可降解材料），运输过程中轻质稳定的材料，与新设计趋势紧密相连的耐用性材料。

包含的课程内容：

- 原型设计/三维打印（每周半天）
- 工程设计（每周半天）

在内容上支持和补充实践课程。

教学模式

- 讲座
- 理论灌输
- 练习
- 小组讨论和个人讨论
- 演讲

学习目标和能力培养

- 学习、评估、设计：技术理解，在设计过程中对特定材料有针对性地使用，并巩固学生在设计中对其的使用策略：在产品中使用特定材料可以极大地影响设计，并在设计过程中形成竞争优势。
- 所附的基础课程与设计项目直接相关联，以便学习并深化与特定主题相关的理论和技术基础知识。

单元总结和考核方式

- 期末设计（CAD 和/或原型设计）
- 演示
- 文案写作

- 课程论文（理论）
- 课堂考勤

参考书目/文献

待定

必要的基础设施和设备

- 电脑
- 三维打印机
- 原型工作坊
- 教室
- 工作室

参考资料和网页链接

待定

L2 PROJECT 1 "NEXT"

Course Code: SDID2006 **Course Name:** L2 PROJECT 1 "NEXT"

Credit points: ECTS:10 Chinese: 7

Subjects related: Industrial Design

Pre-requirement for the Course: None

Faculty or Department: SISD

Mandatory or elective: Mandatory

Teachers in charge of the Course:

Course Description（about 200 words）

Topics in this course include visionary service design topics and visionary future topics that assume that the tasks are solvable (e.g., renewable energy, medical interventions, tourism, etc.). Through design theory, engineering design, technical training, etc., the analysis of new technologies and trends aims to be forward-looking in order to be able to "rethink" the future. It also means making the future "tangible" and knowing how to "design" in the visionary design. At the same time, it cultivates students' basic knowledge of theory, engineering and technology. Through course study, students can form a way of thinking to question classic design, in order to improve the efficiency of the use of designed products, and be able to propose solutions and processes for future design.

Learning objectives/aims and competencies

- Learning, assessing, designing: Analyses of new technologies and trends are intended to enable foresight in order to be able to "rethink" the future. This also means making the future "tangible", in design visions, in order to use design, for example, to make changes understandable and fascinating.
- Theory, engineering, technology and other important disciplinary courses (BASICS) are directly linked to the projects in order to learn and deepen basic knowledge specific to the topic.

Units

Next / Pro 1 Basics

Teaching and learning methods and formats

- Lectures,
- Inputs,
- Exercises,
- Group and individual discussions,
- Presentations,
- Research in projects,
- and theory courses.

Envisaged practical skills

- CAD,
- Prototyping,
- Design methods.

Envisaged theoretical and reflective skills

- Questioning familiar processes, for example, in order to make them more efficient.
- Technical and theoretical insights that support, influence and make the design process assessable.

Envisaged scientific skills

Acquiring knowledge that makes it possible to design future-oriented solutions and processes.

Course conclusion and proof of performance

- Final design (CAD and/or prototype),
- Presentation,
- Documentation,
- Term paper (theory),
- Class attendance.

Unit : L2 PROJECT 1 "NEXT"

(code: BA ID 2.1)

Profile of lecturer(s)

- Lecturer for design practice
- Lecturer for design theory
- Lecturer for engineering
- Lecturer for technology

Content

In Next (5 weeks)

Specific topics can be given or freely chosen, dealing with visionary tasks, but also facing a solution that can be implemented soon, such as the "last mile" / parcels or traffic planning, etc. The topic of service design is also directly in focus here.

The accompanying courses:

- Design-Theory (1/2 day per week)
- Technology (1/2 day per week)
- Engineering (1/2 day per week)

Support and complement the practical course in terms of content.

Teaching and learning methods and formats

- Lectures,
- Inputs,
- Exercises,
- Group and individual discussions,
- and presentations.

Learning objectives/aims and competencies

- Learning, assessing, designing: Visionary thinking coupled with tangible solutions that can be implemented in the near future enable comprehensible design for a wide range of applications.
- The accompanying basic courses are directly linked to the projects in order to learn and deepen topic-specific theoretical and technology basic knowledge.

Unit conclusion and proof of performance

- Final design (CAD and/or prototype),
- Presentation,
- Documentation,
- Term paper (theory),
- Class attendance.

Bibliography / literature

Will be provided

Necessary infrastructure and equipment

- Computer,
- 3D printer,
- Prototyping workshop,
- Lecture rooms,
- Studio rooms.

Necessary student equipment

Computer

References and web links

Will be provided

“未来”专题设计工作坊

课程代码: SDID2006　　**课程名:** “未来”专题设计工作坊

学分: 欧方 10 学分　中方 7 学分

开设专业: 工业设计

先修课程: 无

负责院系: SISD

必修或选修: 必修

负责教师:

课程描述（约 200 字）

本课程主题包括面向未来的服务设计主题和展望未来的可解决设计主题（例如，可再生能源、医疗干预、旅游等）。通过设计理论、工程设计、技术类培训等方法，对新技术和新趋势的分析旨在形成前瞻性，以便能够“重新思考”未来。这也意味着使未来“有形化”，在远景设计中懂得如何“设计”。同时，培养学生的理论、工程、技术知识等基础知识。通过课程学习，学生可以形成质疑经典设计的思维方式，以提高设计的产品的使用效率，能够提出面向未来设计的解决方案和流程。

课程培养目标与能力

- 学习、评估、设计：对新技术和新趋势的分析旨在形成前瞻性，以便能够“重新思考”未来。这也意味着使未来“有形化”，在远景设计中懂得如何“设计”，例如，使“变化”可以被感知且极具吸引。
- 理论、工程、技术和其他重要的学科课程（基础知识）都与这些项目直接相关联，以便学习并深化特定主题的基础知识。

单元

“未来”专题设计工作坊

教学模式与方法

- 讲座
- 理论灌输
- 练习
- 小组和个人讨论
- 演讲
- 项目研究
- 理论课程

目标实践技能

- CAD
- 原型设计
- 设计方法

目标理论与思维能力

- 质疑为人所熟知的思维方式，以提高设计的产品的使用效率。
- 学习那些支持、影响设计过程及使其可评估的技术和理论。

目标科学技能

获取知识，使设计面向未来的解决方案和过程成为可能。

考核方式

- 终期设计（CAD 和/或原型设计）
- 演示
- 文案写作

- 课程论文（理论）
- 课堂考勤

单元　“未来”专题设计工作坊

（单元编号：BA ID 2.1）

师资配备

- 设计实践讲师
- 设计理论讲师
- 工程类课程讲师
- 技术类课程讲师

内容

授课时长：5 周

课程中具体的设计主题可由教师给出或由学生自由选择，如一个既需要有远见、同时也要面临快速实施的解决方案，如“最后一公里”物流或交通规划等。服务设计的主题也是本课程内容的重点。

包含的课程内容：

- 设计理论（每周半天）
- 技术类课程（每周半天）
- 工程设计（每周半天）

在内容上支持和补充实践课程。

教学模式

- 讲座
- 理论灌输
- 练习
- 小组讨论和个人讨论
- 演讲

学习目标和能力培养

- 学习、评估、设计：有远见的思维加上切实的解决方案，设计可以在不久的将来得到实现，并为其广泛应用提供可理解的设计。
- 所附的基础课程与设计项目直接相关联，以便学习并深化与特定主题相关的理论和技术基础知识。

单元总结和考核方式

- 期末设计（CAD 和/或原型设计）

- 演示
- 文案写作
- 课程论文（理论）
- 课堂考勤

参考书目/文献

待定

必要的基础设施和设备

- 电脑
- 三维打印机
- 原型工作坊
- 教室
- 工作室

参考资料和网页链接

待定

L2 PROJECT 2 "VISION"

Course Code: SDID2007 **Course Name:** L2 PROJECT 2 "VISION"

Credit points: ECTS:7 Chinese: 4

Subjects related: Industrial Design

Pre-requirement for the Course: None

Faculty or Department: SISD

Mandatory or elective: Mandatory

Teachers in charge of the Course:

Course Description（about 200 words）

Topics in this course include visionary service design topics and visionary future topics that assume that the tasks are solvable (e.g., renewable energy, medical interventions, tourism, etc.). Through design theory, engineering design, technical training, etc., the analysis of new technologies and trends aims to be forward-looking in order to be able to "rethink" the future. It also means making the future "tangible" and knowing how to "design" in the visionary design. At the same time, it cultivates students' basic knowledge of theory, engineering and technology. Through course study, students can form a way of thinking to question classic design, in order to improve the efficiency of the use of designed products, and be able to propose solutions and processes for future design.

Learning objectives/aims and competencies

- Learning, assessing, designing: Analyses of new technologies and trends are intended to enable foresight in order to be able to "rethink" the future. This also means making the future "tangible", in design visions, in order to use design, for example, to make changes understandable and fascinating.
- Theory, engineering, technology and other important disciplinary courses (BASICS) are directly linked to the projects in order to learn and deepen basic knowledge specific to the topic.

Units

Vision / Pro 2 Basics

Teaching and learning methods and formats

- Lectures,
- Inputs,
- Exercises,
- Group and individual discussions,
- Presentations,
- Research in projects,
- and theory courses.

Envisaged practical skills

- CAD,
- Prototyping,
- Design methods.

Envisaged theoretical and reflective skills

- Questioning familiar processes, for example, in order to make them more efficient.
- Technical and theoretical insights that support, influence and make the design process assessable.

Envisaged scientific skills

Acquiring knowledge that makes it possible to design future-oriented solutions and processes.

Course conclusion and proof of performance

- Final design (CAD and/or prototype),
- Presentation,
- Documentation,
- Term paper (theory),
- Class attendance.

Unit : L2 PROJECT 2 "VISION"

(code: BA ID 2.2)

Profile of lecturer(s)

- Lecturer for design practice
- Lecturer for futurology
- Lecturer for technology

Content

In Vision (5 weeks)

Visionary future topics that assume that the tasks are solvable (e.g., renewable energy, medical interventions, tourism, etc.).

The accompanying courses:

- Futurology (1/2 day per week, but 3x only)
- Technology (1/2 day per week)

Support and complement the practical course in terms of content.

Teaching and learning methods and formats

- Lectures,
- Inputs,
- Exercises,
- Group and individual discussions,
- Presentations.

Learning objectives/aims and competencies

- Learning, assessing, designing: Learning to think with the vision in the foreground. The suggestion of technical feasibility supports the concern in order to address it with design.
- The accompanying basic courses are directly linked to the projects in order to learn and deepen topic-specific theoretical and technology basic knowledge.

Unit conclusion and proof of performance

- Final design (CAD and/or prototype),
- Presentation,
- Documentation,

- Class attendance.

Bibliography / literature

Will be provided

Necessary infrastructure and equipment

- Computer,
- 3D printer,
- Prototyping workshop,
- Lecture rooms,
- Studio rooms

Necessary student equipment

Computer

References and web links

Will be provided

“想象”专题设计工作坊

课程代码: SDID2007　　**课程名:** “想象”专题设计工作坊

学分: 欧方 7 学分　中方 4 学分

开设专业: 工业设计

先修课程: 无

负责院系: SISD

必修或选修: 必修

负责教师:

课程描述（约 200 字）

本课程主题包括面向未来的服务设计主题和展望未来的可解决的设计主题（例如，可再生能源、医疗干预、旅游等）。通过设计理论、工程设计、技术类培训等方法，对新技术和新趋势的分析旨在形成前瞻性，以便能够“重新思考”未来。这也意味着使未来“有形化”，在远景设计中懂得如何“设计”。同时，培养学生的理论、工程、技术知识等基础知识。通过课程学习，学生可以形成质疑经典设计的思维方式，以提高设计的产品的使用效率，能够提出面向未来设计的解决方案和流程。

课程培养目标与能力

- 学习、评估、设计：对新技术和新趋势的分析旨在形成前瞻性，以便能够“重新思考”未来。这也意味着使未来“有形化”，在远景设计中懂得如何“设计”，例如，使“变化”可以被感知且引人入胜。
- 理论、工程、技术和其他重要的学科课程（基础知识）都与这些项目直接相关联，以便学习并深化特定主题的基础知识。

单元

“想象”专题设计工作坊

教学模式与方法

- 讲座
- 理论灌输
- 练习
- 小组和个人讨论
- 演讲
- 项目研究
- 理论课程

目标实践技能

- CAD
- 原型设计
- 设计方法

目标理论与思维能力

- 质疑为人所熟知的思维方式，以提高设计的产品的使用效率。
- 学习那些支持、影响设计过程及使其可评估的技术和理论。

目标科学技能

获取知识，使设计面向未来的解决方案和过程成为可能。

考核方式

- 期末设计（CAD 和/或原型设计）
- 演示
- 文案写作

- 课程论文（理论）
- 课堂考勤

单元　“想象”专题设计工作坊

（单元编号：BA ID 2.2）

师资配备

- 设计实践讲师
- 未来学讲师
- 技术类课程讲师

内容

授课时长：5 周

课程内容包括展望未来且可被解决的设计主题（例如，可再生能源、医疗干预、旅游等）。

包含的课程内容：

- 未来学（每周半天，但仅限 3 倍）
- 技术类课程（每周半天）

在内容上支持和补充实践课程。

教学模式

- 讲座
- 理论灌输
- 练习
- 小组讨论和个人讨论
- 演讲

学习目标和能力培养

- 学习、评估、设计：学习如何使用具有前瞻性的思维方式来进行思考。为特定问题提供具有技术可行性的建议，以便通过设计来解决问题。
- 所附的基础课程与设计项目直接相关联，以便学习并深化与特定主题相关的理论和技术基础知识。

单元总结和考核方式

- 期末设计（CAD 和/或原型设计）
- 演示
- 文案写作
- 课堂考勤

参考书目/文献

待定

必要的基础设施和设备

- 电脑
- 三维打印机
- 原型工作坊
- 教室
- 工作室

参考资料和网页链接

待定

L3 PROJECT 1 "INTERACTION “

Course Code: SDID3001 **Course Name:** L3 PROJECT 1 "INTERACTION“

Credit points: ECTS:10 Chinese: 7

Subjects related: Industrial Design

Pre-requirement for the Course: None

Faculty or Department: SISD

Mandatory or elective: Mandatory

Teachers in charge of the Course:

Course Description（about 200 words）

More and more disciplines cannot exist on their own and can only be used in combination with other special areas. The weighting of the proportional parts in a design process is an aim here. Topics in this course include identity of industrial design and interface design together. Network design concepts in the hardware and software domains enable many new applications. Students will learn how to keep designs in the same style at all levels. In addition, in the context of industrial design, the subject of course design is integrated with visual media, architecture, games or engineering, etc. An extensive network of expertise and integration with other disciplines enables students to navigate complex design processes.

Learning objectives/aims and competencies

- Learning, assessing, designing: More and more disciplines cannot exist on their own and can only be used in combination with other special areas. The weighting of the proportional parts in a design process is an aim here.
- Theory, interaction design, visual media design, technology and other important disciplinary courses (BASICS) are directly linked to the projects in order to learn and deepen basic knowledge specific to the topic.

Units

Level 3 Project 1 "Interaction" / Pro 1 Basics

Teaching and learning methods and formats

- Lectures,
- Inputs,
- Exercises,
- Group and individual discussions,
- Presentations,
- Research in projects,
- and theory courses.

Envisaged practical skills

- CAD,
- Prototyping,
- Design methods.

Envisaged theoretical and reflective skills

Disciplinary thinking and extension of design specifications.

Envisaged scientific skills

Extension of technical and creative methods.

Course conclusion and proof of performance

- Final design (CAD and/or prototype),
- Presentation,
- Documentation,

- Term paper (theory),
- Class attendance.

Unit : L3 PROJECT 1 "INTERACTION“

(code: BA ID 3.1)

Profile of lecturer(s)

- Lecturer for design practice
- Lecturer for design theory
- Lecturer for interaction design
- Lecturer for visual media

Content

In Interaction (5 weeks).

Specific theme, identity of industrial design and interface design together (e.g., due to industrial design, does interface design also belong to a common design style?)

The accompanying courses:

- Design-Theory (1/2 day per week)
- Interaction Design (1/2 day per week)
- Visual Media (1/2 day per week)

Support and complement the practical course in terms of content.

Teaching and learning methods and formats

- Lectures,
- Inputs,
- Exercises,
- Group and individual discussions,
- Presentations.

Learning objectives/aims and competencies

- Learning, assessing, designing: Networked design concepts in the hardware and software area enable many new applications. The design should be designed in such a way that it has an identical style on all levels.
- The accompanying basic courses are directly linked to the projects in order to learn and deepen topic-specific theoretical and technology basic knowledge.

Unit conclusion and proof of performance

- Final design (CAD and/or prototype),

- Presentation,
- Documentation,
- Term paper (theory),
- Class attendance.

Bibliography / literature

Will be provided

Necessary infrastructure and equipment

- Computer,
- 3D printer,
- Prototyping workshop,
- Lecture rooms,
- Studio rooms.

Necessary student equipment

Computer

References and web links

Will be provided

“交互设计”专题设计工作坊

课程代码: SDID3002　　**课程名:** “交互设计”专题设计工作坊

学分: 欧方 10 学分　中方 7 学分

开设专业: 工业设计

先修课程: 无

负责院系: SISD

必修或选修: 必修

负责教师:

课程描述（约 200 字）

越来越多的学科已并非独立存在，而是与其他特殊领域相结合进行应用。在设计过程中，如何权衡不同学科间的知识权重是本课程的教学重点。本课程主题包括特定的交互设计主题与具有工业设计特征且与界面设计相结合的设计主题。硬件和软件领域的网络设计概念使许多新的应用程序成为可能。学生将学习如何使设计在所有层次上都保持同一种风格。其次，在工业设计的背景下，课程设计的主题与视觉媒体、架构、游戏或工程等相结合。广泛的专业知识网络和与其他学科的融合使学生能够驾驭复杂的设计过程。

课程培养目标与能力

- 学习、评估、设计：越来越多的学科已并非独立存在，而是与其他特殊领域相结合进行应用。在设计过程中，如何权衡不同学科间的知识权重是本课程的教学重点。
- 理论、交互设计、视觉媒体设计、技术类课程和其他重要的学科课程（基础知识）直接与项目相关联，以便学习与课程主题所涵盖的理论和技术基础知识。

单元

“交互设计”专题设计工作坊

教学模式与方法

- 讲座
- 理论灌输
- 练习
- 小组和个人讨论
- 演讲
- 项目研究
- 理论课程

目标实践技能

- CAD
- 原型设计
- 设计方法

目标理论与思维能力

学科思考和设计规范的延展。

目标科学技能

技术和创造性方法的延展。

考核方式

- 期末设计（CAD 和/或原型设计）
- 演示
- 文案写作
- 课程论文（理论）
- 课堂考勤

单元　“交互设计”专题设计工作坊

（单元编号：BA ID 3.1）

师资配备

- 设计实践讲师
- 设计理论讲师
- 交互设计讲师
- 视觉媒体讲师

内容

授课时长：5 周
特定的交互设计主题与具有工业设计特征且与界面设计相结合的设计主题（例如，界面设计是否与工业设计共享同一种设计风格）
包含的课程内容:

- 设计理论（每周半天）
- 交互设计（每周半天）
- 视觉媒体（每周半天）

在内容上支持和补充实践课程。

教学模式

- 讲座
- 理论灌输
- 练习
- 小组讨论和个人讨论
- 演讲

学习目标和能力培养

- 学习、评估、设计：硬件和软件领域的网络设计概念使许多新的应用程序成为可能。学生将学习如何使设计在所有层次上都保持同一种风格。
- 所附的基础课程与设计项目直接相关联，以便学习并深化与特定主题相关的理论和技术基础知识。

单元总结和考核方式

- 期末设计（CAD 和/或原型设计）
- 演示

- 文案写作
- 课程论文（理论）
- 课堂考勤

参考书目/文献

待定

必要的基础设施和设备

- 电脑
- 三维打印机
- 原型工作坊
- 教室
- 工作室

参考资料和网页链接

待定

L3 PROJECT 2 / "INTERDISCIPLINARY"

Course Code: SDID3002 **Course Name:** L3 PROJECT 2 / "INTERDISCIPLINARY"

Credit points: ECTS:7 Chinese: 4

Subjects related: Industrial Design

Pre-requirement for the Course: None

Faculty or Department: SISD

Mandatory or elective: Mandatory

Teachers in charge of the Course:

Course Description（about 200 words）

More and more disciplines cannot exist on their own and can only be used in combination with other special areas. The weighting of the proportional parts in a design process is an aim here. Topics in this course include identity of industrial design and interface design together. Network design concepts in the hardware and software domains enable many new applications. Students will learn how to keep designs in the same style at all levels. In addition, in the context of industrial design, the subject of course design is integrated with visual media, architecture, games or engineering, etc. An extensive network of expertise and integration with other disciplines enables students to navigate complex design processes.

Learning objectives/aims and competencies

- Learning, assessing, designing: More and more disciplines cannot exist on their own and can only be used in combination with other special areas. The weighting of the proportional parts in a design process is an aim here.
- Theory, interaction design, visual media design, technology and other important disciplinary courses (BASICS) are directly linked to the projects in order to learn and deepen basic knowledge specific to the topic.

Units

Level 3 Project 2 "Interdisciplinary" / Pro 2 Basics

Teaching and learning methods and formats

- Lectures,
- Inputs,
- Exercises,
- Group and individual discussions,
- Presentations,
- Research in projects,
- and theory courses.

Envisaged practical skills

- CAD,
- Prototyping,
- Design methods.

Envisaged theoretical and reflective skills

Disciplinary thinking and extension of design specifications.

Envisaged scientific skills

Extension of technical and creative methods.

Course conclusion and proof of performance

- Final design (CAD and/or prototype),
- Presentation,
- Documentation,

- Term paper (theory),
- Class attendance.

Unit : L3 PROJECT 2 / "INTERDISCIPLINARY"

(code: BA ID 3.2)

Profile of lecturer(s)

- Lecturer for design practice
- Lecturer from the cooperating discipline
- Lecturer for engineering
- Lecturer for trend research

Content

In Interdisciplinary (5 weeks).

Topic together with visual media / architecture / gaming / or engineering etc. in the context of industrial design.

The accompanying courses:

- Trend (1/2 day per week, but 3x only)
- Engineering (1/2 day per week)

Support and complement the practical course in terms of content.

Teaching and learning methods and formats

- Lectures,
- Inputs,
- exercises,
- Group and individual discussions,
- Presentations.

Learning objectives/aims and competencies

- Learning, assessing, designing: Extensive networking and cooperation with other disciplines lead to the learning of greater complexity in the design process.
- The accompanying basic courses are directly linked to the projects in order to learn and deepen topic-specific theoretical and technology basic knowledge.

Unit conclusion and proof of performance

- Final design (CAD and/or prototype),
- Presentation,
- Documentation,

- Class attendance.

Bibliography / literature

Will be provided

Necessary infrastructure and equipment

- Computer,
- 3D printer,
- Prototyping workshop,
- Lecture rooms,
- Studio rooms

Necessary student equipment

Computer

References and web links

Will be provided

“跨学科”专题设计工作坊

课程代码: SDID3002　　**课程名:** “跨学科”专题设计工作坊

学分: 欧方 7 学分　中方 4 学分

开设专业: 工业设计

先修课程: 无

负责院系: SISD

必修或选修: 必修

负责教师:

课程描述（约 200 字）

越来越多的学科已并非独立存在，而是与其他特殊领域相结合进行应用。在设计过程中，如何权衡不同学科间的知识权重是本课程的教学重点。本课程主题包括特定的交互设计主题与具有工业设计特征且与界面设计相结合的设计主题。硬件和软件领域的网络设计概念使许多新的应用程序成为可能。学生将学习如何使设计在所有层次上都保持同一种风格。其次，在工业设计的背景下，课程设计的主题与视觉媒体、架构、游戏或工程等相结合。广泛的专业知识网络和与其他学科的融合使学生能够驾驭复杂的设计过程。

课程培养目标与能力

- 学习、评估、设计：越来越多的学科已并非独立存在，而是与其他特殊领域相结合进行应用。在设计过程中，如何权衡不同学科间的知识权重是本课程的教学重点。
- 理论、交互设计、视觉媒体设计、技术类课程和其他重要的学科课程（基础知识）直接与项目相关联，以便学习与课程主题所涵盖的理论和技术基础知识。

单元

“跨学科”专题设计工作坊

教学模式与方法

- 讲座
- 理论灌输
- 练习
- 小组和个人讨论
- 演讲
- 项目研究
- 理论课程

目标实践技能

- CAD
- 原型设计
- 设计方法

目标理论与思维能力

学科思考和设计规范的延展。

目标科学技能

技术和创造性方法的延展。

考核方式

- 期末设计（CAD 和/或原型设计）
- 演示
- 文案写作
- 课程论文（理论）
- 课堂考勤

单元　“跨学科”专题设计工作坊

（单元编号：BA ID 3.2）

师资配备

- 设计实践讲师
- 来自合作学科的讲师
- 工程类课程讲师
- 趋势研究讲师

内容

授课时长：5 周

在工业设计的背景下，课程设计的主题与视觉媒体、架构、游戏或工程等相结合。

包含的课程内容：

- 趋势（每周半天，但仅限 3 倍）
- 工程设计（每周半天）

在内容上支持和补充实践课程。

教学模式

- 讲座
- 理论灌输
- 练习
- 小组讨论和个人讨论
- 演讲

学习目标和能力培养

- 学习、评估、设计：广泛的专业知识网络和过程中与其他学科的合作使学生能够驾驭复杂的设计过程。
- 所附的基础课程与设计项目直接相关联，以便学习并深化与特定主题相关的理论和技术基础知识。

单元总结和考核方式

- 期末设计（CAD 和/或原型设计）
- 演示
- 文案写作
- 课堂考勤

参考书目/文献

待定

必要的基础设施和设备

- 电脑
- 三维打印机
- 原型工作坊
- 教室
- 工作室

参考资料和网页链接

待定

L4 PROJECT 1 "HIGH END"

Course Code: SDID3003 **Course Name:** L4 PROJECT 1 "HIGH END"

Credit points: ECTS:9 Chinese: 6

Subjects related: Design

Pre-requirement for the Course: None

Faculty or Department: SISD

Mandatory or elective: Mandatory

Teachers in charge of the Course:

Course Description（about 200 words）

This course starts from students' conditions and needs, and focuses on guiding contemporary students to have a correct understanding of luxury brands with correct values and social morality. In the framework of the theoretical knowledge base of luxury management, the development of luxury goods in different fields and their brand composition are combined to enrich the students' vision. Students are required to understand and memorize the concept and development of luxury goods, and to understand the distribution of brands in different fields. While appreciating brand design, they will continue to expand their knowledge reserves. And carry out product impression analysis, thinking about the definition of high-end products and their relationship with resources such as materials, cost specifications, etc.

Learning objectives/aims and competencies

- Learning, assessing, designing: What does "high end" mean?
- Is a luxury item high-end because it is expensive and made of fine materials? Or is high-end a repetitive user experience that always works, even with simple products?
- Many of these and similar questions are examined methodically and practically in order to create an own definition of a given topic.

Units

HIGH END / PRO 1 BASICS

Teaching and learning methods and formats

- Lectures;
- Inputs;
- Exercises;
- Group and individual discussions;
- Presentations;
- Research in projects;
- And theory courses.

Envisaged practical skills

- CAD;
- Prototyping;
- Design methods.

Envisaged theoretical and reflective skills

- Analysis of product impressions;
- Definition of high-end also in connection with resources such as material, cost specifications, etc.

Envisaged scientific skills

- Methodical design process.

Course conclusion and proof of performance

- Final design (CAD and/or prototype);
- Presentation;

- Documentation;
- Term paper (theory);
- Class attendance.

Unit : L4 PROJECT 1 "HIGH END"

(code: BA ID 4.1)

Profile of lecturer(s)

- Lecturer for design practice;
- Lecturer for design theory;
- Lecturer for engineering;
- Lecturer for technology.

Content

In High End (5 weeks) products that are immediately understandable: Comprehensive approaches to solving technological, ecological and economic requirements.
High-end is a broad term here and does not mean luxury alone, but the visible quality of these features also. This also serves as a differentiator in a business model.
The accompanying courses:

- Design-Theory (1/2 day per week, but 3x only);
- Engineering (1/2 day per week);
- Technology (1/2 day per week);

Support and complement the practical course in terms of content.

Teaching and learning methods and formats

- Lectures;
- Inputs;
- Exercises;
- Group and individual discussions;
- Presentations.

Learning objectives/aims and competencies

Learning, assessing, designing:

- Quality awareness in design;
- Technical implementation;
- Sustainability as a quality concept.

Unit conclusion and proof of performance

- Final design (CAD and/or prototype);

- Presentation;
- Documentation;
- Term paper (theory);
- Class attendance.

Bibliography / literature

Will be provided

Necessary infrastructure and equipment

Computer;

3D printer;

Prototyping workshop;

Lecture rooms.

Necessary student equipment

Computer

References and web links

Will be provided

“高端设计”专题设计工作坊

课程代码: SDID3003　　**课程名:** “高端设计”专题设计工作坊

学分: 欧方 9 学分　中方 6 学分

开设专业: 设计学

先修课程: 无

负责院系: SISD

必修或选修: 必修

负责教师:

课程描述（约 200 字）

本课程由学生自身条件及需求出发,重在以正确的价值观以及社会道德修养来引导当代学生对于奢侈品牌的正确认识。在奢侈品管理的理论知识基础构架上，大量结合奢侈品在不同领域的发展情况及其品牌构成来丰富学生的视野。要求学生能够理解记忆奢侈品的概念及发展脉络，并了解不同领域的品牌分布，在欣赏品牌设计的同时，不断扩充自己的知识储备量。并进行产品印象分析，思考高端产品的定义以及与资源的关系，如材料、成本规格等。

课程培养目标与能力

- 学习、评估、设计:“高端”意味着什么?
- 奢侈品的高端体现在它昂贵的价格，是因为其使用了优质的材料吗？或者高端是一种重复的用户体验，即使对于简单的产品来说也一样?
- 为了对给定的设计主题创建一个系统和具有实践性质的定义，课上需要学生研究和思考许多类似的问题。

单元

“高端设计”专题设计工作坊

教学模式与方法

- 讲座
- 理论灌输
- 练习
- 小组和个人讨论
- 演讲
- 项目研究
- 理论课程

目标实践技能

- CAD
- 原型设计
- 设计方法

目标理论与思维能力

- 产品印象分析。
- 思考高端产品的定义以及与资源的关系，如材料、成本规格等。

目标科学技能

方法设计过程。

考核方式

- 期末设计（CAD 和/或原型设计）
- 演示
- 文案写作

- 课程论文（理论）
- 课堂考勤

单元　“高端设计”专题设计工作坊

(单元编号: BA ID 4.1)

师资配备

- 设计实践讲师
- 设计理论讲师
- 工程类课程讲师
- 技术类课程讲师

内容

授课时长：5 周。

可被立即理解和接受的产品：解决技术、生态和经济需求的综合性设计方法。

高端在这里是一个广泛的术语，不仅意味着奢侈品本身，而且体现其可见的奢华品质，同时区分与商业模式概念上的区别。

包含的课程内容:

- 设计理论（每周半天）;
- 工程设计（每周半天）;
- 技术类课程（每周半天）;

在内容上支持和补充实践课程。

教学模式

- 讲座
- 理论灌输
- 练习
- 小组讨论和个人讨论
- 演讲

学习目标和能力培养

学习、评估、设计:

- 在设计中的质量把控意识,
- 技术实施,
- 将可持续性作为一个质量概念。

单元总结和考核方式

- 期末设计（CAD 和/或原型设计）

- 演示
- 文案写作
- 课程论文（理论）
- 课堂考勤

参考书目/文献

待定

必要的基础设施和设备

- 电脑
- 三维打印机
- 原型工作坊
- 教室
- 工作室

参考资料和网页链接

待定

L4 PROJECT 2 "DETAIL"

Course Code: SDID3004 **Course Name:** L4 PROJECT 2 "DETAIL"

Credit points: ECTS:8 Chinese: 5

Subjects related: Design

Pre-requirement for the Course: None

Faculty or Department: SISD

Mandatory or elective: Mandatory

Teachers in charge of the Course:

Course Description（about 200 words）

This course starts from students' conditions and needs, and focuses on guiding contemporary students to have a correct understanding of luxury brands with correct values and social morality. In the framework of the theoretical knowledge base of luxury management, the development of luxury goods in different fields and their brand composition are combined to enrich the students' vision. Students are required to understand and memorize the concept and development of luxury goods, and to understand the distribution of brands in different fields. While appreciating brand design, they will continue to expand their knowledge reserves. And carry out product impression analysis, thinking about the definition of high-end products and their relationship with resources such as materials, cost specifications, etc.

Learning objectives/aims and competencies

- Learning, assessing, designing: What does "high end" mean?
- Is a luxury item high-end because it is expensive and made of fine materials? Or is high-end a repetitive user experience that always works, even with simple products?
- Many of these and similar questions are examined methodically and practically in order to create an own definition of a given topic.

Units

DETAIL / PRO 2 BASICS

Teaching and learning methods and formats

- Lectures;
- Inputs;
- Exercises;
- Group and individual discussions;
- Presentations;
- Research in projects;
- And theory courses.

Envisaged practical skills

- CAD;
- Prototyping;
- Design methods.

Envisaged theoretical and reflective skills

- Analysis of product impressions;
- Definition of high-end also in connection with resources such as material, cost specifications, etc.

Envisaged scientific skills

- Methodical design process.

Course conclusion and proof of performance

- Final design (CAD and/or prototype);
- Presentation;

- Documentation;
- Term paper (theory);
- Class attendance.

Unit : L4 PROJECT 2 "DETAIL"

(code: BA ID 4.2)

Profile of lecturer(s)

- Lecturer for design practice;
- Lecturer for engineering;
- Lecturer for technology.

Content

In Detail (5 weeks) in the case of the high-end topic, own priorities can be set, which have been gained from the preceding projects. For e.g., DETAIL: This can involve complex products or scenarios where the detail nevertheless determines the quality impression.

The accompanying courses.

- Engineering (1/2 day per week).
- Technology (1/2 day per week).

Support and complement the practical course in terms of content.

Teaching and learning methods and formats

- Lectures;
- Inputs;
- Exercises;
- Group and individual discussions;
- Presentations.

Learning objectives/aims and competencies

Learning, assessing, designing:

- Quality awareness in design;
- Technical implementation;
- Sustainability as a quality concept.

Unit conclusion and proof of performance

- Final design (CAD and/or prototype);
- Presentation;
- Documentation;

- Term paper (theory);
- Class attendance.

Bibliography / literature

Will be provided

Necessary infrastructure and equipment

- Computer;
- 3D printer;
- Prototyping workshop;
- Lecture rooms;
- Studio rooms.

Necessary student equipment

Computer

References and web links

Will be provided

“细节设计”专题设计工作坊

课程代码: SDID3004　　**课程名:** “细节设计”专题设计工作坊

学分: 欧方 8 学分　中方 5 学分

开设专业: 设计学

先修课程: 无

负责院系: SISD

必修或选修: 必修

负责教师:

课程描述（约 200 字）

本课程由学生自身条件及需求出发,重在以正确的价值观以及社会道德修养来引导当代学生对于奢侈品牌的正确认识。在奢侈品管理的理论知识基础构架上，大量结合奢侈品在不同领域的发展情况及其品牌构成来丰富学生的视野。要求学生能够理解记忆奢侈品的概念及发展脉络，并了解不同领域的品牌分布，在欣赏品牌设计的同时，不断扩充自己的知识储备量。并进行产品印象分析，思考高端产品的定义以及与资源的关系，如材料、成本规格等。

课程培养目标与能力

- 学习、评估、设计:“高端”意味着什么?
- 奢侈品的高端体现在它昂贵的价格，是因为其使用了优质的材料吗？或者高端是一种重复的用户体验，即使对于简单的产品来说也一样?
- 为了对给定的设计主题创建一个系统和具有实践性质的定义，课上需要学生研究和思考许多类似的问题。

单元

“细节设计”专题设计工作坊

教学模式与方法

- 讲座
- 理论灌输
- 练习
- 小组和个人讨论
- 演讲
- 项目研究
- 理论课程

目标实践技能

- CAD
- 原型设计
- 设计方法

目标理论与思维能力

- 产品印象分析。
- 思考高端产品的定义以及与资源的关系，如材料、成本规格等。

目标科学技能

方法设计过程。

考核方式

- 期末设计（CAD 和/或原型设计）
- 演示
- 文案写作

- 课程论文（理论）
- 课堂考勤

单元 2　“细节设计”专题设计工作坊

(单元编号: BA ID 4.2)

师资配备

- 设计实践讲师
- 工程类课程讲师
- 技术类课程讲师

内容

授课时长：5 周。

对于高端主题，学生可以通过从之前设计项目中获得的经验，设置对于设计过程把控的优先级。例如，细节设计：涉及到复杂的产品或场景，同时也将决定使用者对于质量的印象。

包含的课程内容:

- 工程设计（每周半天）;
- 技术类课程（每周半天）;

在内容上支持和补充实践课程。

教学模式

- 讲座
- 理论灌输
- 练习
- 小组讨论和个人讨论
- 演讲

学习目标和能力培养

学习、评估、设计:

- 在设计中的质量把控意识
- 技术实施
- 将可持续性作为一个质量概念

单元总结和考核方式

- 期末设计（CAD 和/或原型设计）
- 演示
- 文案写作

- 课程论文（理论）
- 课堂考勤

参考书目/文献

待定

必要的基础设施和设备

- 电脑
- 三维打印机
- 原型工作坊
- 教室
- 工作室

参考资料和网页链接

待定

L5 PROJECT 1 "BRAND"

Course Code: SDID3005 **Course Name:** L5 PROJECT 1 "BRAND"

Credit points: ECTS: 10 Chinese: 7

Subjects related: Design

Pre-requirement for the Course: None

Faculty or Department: SISD

Mandatory or elective: Mandatory

Teachers in charge of the Course:

Course Description（about 200 words）

Students can learn to master the brand design, current situation, and development overview through the study of this course. Arrange students to carry out project implementation according to the design needs of corporate brands. The purpose is to enable students to understand the detailed operation mode and process of commercial brand design projects through comprehensive training of specific brand projects, and to understand and master the basic concepts, functions, and meanings of brand design, to deepen the understanding of the meaning and essential characteristics of brand design course study. The ability to complete brand design (existing or fictitious start-ups), corporate design, create design strategies related to business models and/or partnerships will be trained.

Learning objectives/aims and competencies

Learning, assessing, designing:

- Dealing with a brand (existing or fictitious as a start-up);
- Corporate design;
- Creation of a design strategy in connection with a business model and/or a cooperation partner.

Units

LEVEL 5 PROJECT 1 "BRAND" / PRO 1 BASICS

Teaching and learning methods and formats

- Lectures;
- Inputs;
- Exercises;
- Group and individual discussions;
- Presentations;
- Research in projects and theory courses.

Envisaged practical skills

- CAD;
- Prototyping;
- Design methods.

Envisaged theoretical and reflective skills

- Design as a strategy: How far can an innovation (technical, creative, economical, etc.) go with an existing manufacturer?
- How high is an acceptance for a visible innovation?

Envisaged scientific skills

Analytical design process.

Course conclusion and proof of performance

- Final design (CAD and/or prototype);
- Presentation;
- Documentation;

- Term paper (theory);
- Class attendance.

Unit : L5 PROJECT 1 "BRAND"

(code: BA ID 5.1)

Profile of lecturer(s)

- Lecturer for design practice;
- Lecturer for design theory;
- Lecturer for economics;
- Lecturer for technology.

Content

In BRAND (5 weeks).

Brand analysis and/or own fictitious brand foundation (start up).

Strategic global alignment (appearance of a brand, distribution, etc.).

The accompanying courses.

- DESIGN-THEORY (1/2 day per week).
- ECONOMICS (1/2 day per week).
- TECHNOLOGY (1/2 day per week).

support and complement the practical course in terms of content.

Teaching and learning methods and formats

- Lectures;
- Inputs;
- Exercises;
- Group and individual discussions;
- Presentations.

Learning objectives/aims and competencies

Learning, assessing, designing:

- Design strategy as a market-oriented tool.

Unit conclusion and proof of performance

- Final design (CAD and/or prototype),
- Presentation;
- Documentation;
- Term paper (theory);

- Class attendance.

Bibliography/literature

Will be provided

Necessary infrastructure and equipment

- Computer;
- 3D printer;
- Prototyping workshop;
- Lecture rooms;
- Studio rooms.

References and web links

Will be provided

“品牌设计”工作坊

课程代码: SDID3005　　**课程名:** “品牌设计”工作坊

学分: 欧方 10 学分　中方 7 学分

开设专业: 设计学

先修课程: 无

负责院系: SISD

必修或选修: 必修

负责教师:

课程描述（约 200 字）

通过本课程的学习，使学生学习掌握品牌设计的现状和发展概况。安排学生根据企业品牌的设计需求进行项目实施,目的是通过具体品牌项目的综合训练,使学生能够认识商业品牌设计项目的详细运作方式及流程，理解掌握品牌设计的基本概念、作用、意义，从而加深对品牌设计课程学习的意义和本质特征的认识。能过够完成品牌设计（现有的或虚构的初创企业）、企业设计、创建与商业模式和/或合作伙伴相关的设计策略。

课程培养目标与能力

学习、评估、设计:

- 进行一个品牌设计（现有的或虚构的初创企业）
- 企业设计
- 创建与商业模式和/或合作伙伴相关的设计策略

单元

“品牌设计”工作坊

教学模式与方法

- 讲座
- 理论灌输
- 练习
- 小组和个人讨论
- 演讲
- 项目研究
- 理论课程

目标实践技能

- CAD
- 原型设计
- 设计方法

目标理论与思维能力

- 以设计作为问题解决策略的能力：与特定的制造商合作背景下，创新能走多远（考虑到技术、创意、经济等各方面）？
- 对一个具有可见度的创新，接受度有多高?

目标科学技能

分析设计过程

考核方式

- 期末设计（CAD 和/或原型设计）
- 演示
- 文案写作

- 课程论文（理论）
- 课堂考勤

单元　　“品牌设计”工作坊

(单元编号: BA ID 5.1)

师资配备

- 设计实践讲师
- 设计理论讲师
- 经济学讲师
- 技术类课程讲师

内容

授课时长：5 周;

品牌分析和/或以设定的虚构品牌（初创品牌）为基础;

全球战略一致性（品牌外观、分销等）;

包含的课程内容:

- 设计理论（每周半天）;
- 经济类课程（每周半天）;
- 技术类课程（每周半天）;

在内容上支持和补充实践课程。

教学模式

- 讲座
- 理论灌输
- 练习
- 小组讨论和个人讨论
- 演讲

学习目标和能力培养

学习、评估、设计:

- 以市场为导向的设计策略并形成工具。

单元总结和考核方式

- 期末设计（CAD 和/或原型设计）
- 演示
- 文案写作
- 课程论文（理论）

- 课堂考勤

参考书目/文献

待定

必要的基础设施和设备

- 电脑
- 三维打印机
- 原型工作坊
- 教室
- 工作室

参考资料和网页链接

待定

L5 PROJECT 2 / "PARTNERSHIP"

Course Code: SDID3006 **Course Name:** L5 PROJECT 2 / "PARTNERSHIP"

Credit points: ECTS: 9 Chinese: 7

Subjects related: Design

Pre-requirement for the Course: None

Faculty or Department: SISD

Mandatory or elective: Mandatory

Teachers in charge of the Course:

Course Description（about 200 words）

Students can learn to master the brand design, current situation, and development overview through the study of this course. Arrange students to carry out project implementation according to the design needs of corporate brands. The purpose is to enable students to understand the detailed operation mode and process of commercial brand design projects through comprehensive training of specific brand projects, and to understand and master the basic concepts, functions, and meanings of brand design, to deepen the understanding of the meaning and essential characteristics of brand design course study. The ability to complete brand design (existing or fictitious start-ups), corporate design, create design strategies related to business models and/or partnerships will be trained.

Learning objectives/aims and competencies

Learning, assessing, designing:

- Dealing with a brand (existing or fictitious as a start-up);
- Corporate design;
- Creation of a design strategy in connection with a business model and/or a cooperation partner.

Units

LEVEL 5 PROJECT 2 "PARTNERSHIP" / PRO 2 BASICS

Teaching and learning methods and formats

- Lectures;
- Inputs;
- Exercises;
- Group and individual discussions;
- Presentations;
- Research in projects and theory courses.

Envisaged practical skills

- CAD;
- Prototyping;
- Design methods.

Envisaged theoretical and reflective skills

- Design as a strategy: How far can an innovation (technical, creative, economical, etc.) go with an existing manufacturer?
- How high is an acceptance for a visible innovation?

Envisaged scientific skills

Analytical design process.

Course conclusion and proof of performance

- Final design (CAD and/or prototype);
- Presentation;
- Documentation;

- Term paper (theory);
- Class attendance.

Unit : L5 PROJECT 2 / "PARTNERSHIP"

(code: BA ID 5.1)

Profile of lecturer(s)

- Lecturer for design practice;
- Lecturer for economics;
- Lecturer for engineering;
- Lecturer for design management.

Content

In PARTNERSHIP (5 weeks).

Design for an industrial partner.

Strategic concept for a design that can be implemented (i.e. possibly further developed together with the industry partner) or leads to a new, expanded orientation.

- ECONOMICS (1/2 day per week).
- ENGINEERING (1/2 day per week).
- DESIGN-MANAGEMENT (1/2 day per week, but 3x only)

support and complement the practical course in terms of content.

Teaching and learning methods and formats

- Lectures;
- Inputs;
- Exercises;
- Group and individual discussions;
- Presentations.

Learning objectives/aims and competencies

Learning, assessing, designing:

- Design strategy as a market-oriented tool.

Unit conclusion and proof of performance

- Final design (CAD and/or prototype),
- Presentation;
- Documentation;
- Term paper (theory);

- Class attendance.

Bibliography/literature

Will be provided

Necessary infrastructure and equipment

- Computer;
- 3D printer;
- Prototyping workshop;
- Lecture rooms;
- Studio rooms.

Necessary student equipment

Computer

References and web links

Will be provided

“合作项目”工作坊

课程代码: SDID3005　　**课程名:** “合作项目”工作坊

学分: 欧方 9 学分　中方 7 学分

开设专业: 设计学

先修课程: 无

负责院系: SISD

必修或选修: 必修

负责教师:

课程描述（约 200 字）

通过本课程的学习，使学生学习掌握品牌设计、现状和发展概况。安排学生根据企业品牌的设计需求进行项目实施,目的是通过具体品牌项目的综合训练,使学生能够认识商业品牌设计项目的详细运作方式及流程，理解掌握品牌设计的基本概念、作用、意义，从而加深对品牌设计课程学习的意义和本质特征的认识。能过够完成品牌设计（现有的或虚构的初创企业）、企业设计、创建与商业模式和/或合作伙伴相关的设计策略。

课程培养目标与能力

学习、评估、设计:

- 进行一个品牌设计（现有的或虚构的初创企业），
- 企业设计，
- 创建与商业模式和/或合作伙伴相关的设计策略。

单元

“合作项目”工作坊

教学模式与方法

- 讲座
- 理论灌输
- 练习
- 小组和个人讨论
- 演讲
- 项目研究
- 理论课程

目标实践技能

- CAD
- 原型设计
- 设计方法

目标理论与思维能力

- 以设计作为问题解决策略的能力：与特定的制造商合作背景下，创新能走多远（考虑到技术、创意、经济等各方面）？
- 对一个具有可见度的创新，接受度有多高?

目标科学技能

分析设计过程

考核方式

- 期末设计（CAD 和/或原型设计）
- 演示
- 文案写作

- 课程论文（理论）
- 课堂考勤

单元　　“合作项目”工作坊

(单元编号: BA ID 5.1)

师资配备

- 设计实践讲师
- 经济学讲师
- 工程类课程讲师
- 设计管理讲师

内容

授课时长：5 周;
为工业合作伙伴进行设计;
形成可实现的设计战略概念(即，可能与行业合作伙伴一起进一步发展)或实现新方向上的拓展;

- 经济类课程（每周半天）;
- 工程设计（每周半天）;
- 设计管理（每周半天）;

在内容上支持和补充实践课程。

教学模式

- 讲座
- 理论灌输
- 练习
- 小组讨论和个人讨论
- 演讲

学习目标和能力培养

学习、评估、设计:

- 以市场为导向的设计策略并形成工具。

单元总结和考核方式

- 期末设计（CAD 和/或原型设计）
- 演示

- 文案写作
- 课程论文（理论）
- 课堂考勤

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