Module 7 Electives

Contents

Option 1

Module designation	*Automobile marketing practice* *(The course description is not available in the school education system, because it is newly added and will be available by 2026 spring semester).*
Semester(s) in which the module is taught	*6*
Person responsible for the module	*N/A*
Language	*Chinses*
Relation to curriculum	*Elective*
Teaching methods	*N/A*
Workload (incl. contact hours, self-study hours)	*Contact hours:32 including lecture, exercise.Private study including examination preparation, specified in hours:58*
Credit points	*3 ECTS CP*
Required and recommended prerequisites for joining the module	*N/A*
Module objectives/intended learning outcomes	*N/A*
Content	*N/A*
Examination forms	*N/A*
Study and examination requirements	*N/A*
Reading list	*N/A*

Module designation	*Service Design*
Semester(s) in which the module is taught	*5*
Person responsible for the module	Shun Zeng

Language	*Chinese*
Relation to curriculum	*Elective* *Guided by the core values of socialism, the coordinated development of curriculum knowledge, students' work ability and overall quality is the goal, closely integrated with the training objectives of the discipline, focusing on design application and practice, closely focusing on "user-centered", focusing on user experience, and combining projects and topics for innovative exploration and research. This course has great innovative significance for industrial design, advertising creation and design, commercial design and display, and digital media design. At the same time, combined with the training plan and requirements of the undergraduate, the training requirements oriented by "applied practice" are closely related to the training goals of applied talents. At the same time, it interacts with the upstream and downstream of related courses to form a system, and objectively designs and researches the program.*
Teaching methods	*lecture, lesson, lab works, project, seminar etc.*
Workload (incl. contact hours, self-study hours)	*Contact hours:32 including lecture, exercise. Private study including examination preparation, specified in hours: 58*
Credit points	*3 ECTS CP*
Required and recommended prerequisites for joining the module	*N/A*
Module objectives/intended learning outcomes	*Knowledge: The system theory, method, process and key technical points of service design, the basic knowledge of peripheral disciplines required for product design, the intellectual property laws and regulations, safety and environmental protection policies related to product design, the history, development trend and career development direction of industrial design.* *Skills: Design expression ability, innovation ability, proficient in various design expression tools, through preliminary research and research design trends.* *Competences: Have the ability to combine design culture with modern business, be good at communication and*

	cooperation in design, have critical spirit, creative thinking, aesthetic literacy, teamwork ability, and have a certain international vision and communication, competition and cooperation in a cross-cultural environment.
Content	*Chapter 1 Defining Service Design* *1.1 Definition of Services* *1.2 Service design economy* *1.3 What is Service Design* *Chapter 2 Language of Service Design* *2.1 Principles of Service Design* *2.2 Benefit-Sharing* *2.3 Value co-creation* *2.4 Touchpoints* *2.5 User Journeys* *Chapter 3 Processes and Tools for Service Design* *3.1 Research and analysis* *3.2 Service Concept Concept* *3.3 Prototyping, testing and iteration* *3.4 Service design, implementation and evaluation* *Chapter 4 Intelligent Product and Service Design Practice* *4.1 Overview of global service design practices* *4.2 Smart wearable medical product and service design cases* *4.3 Intelligent digital conference product and service design cases* *4.4 Intelligent public product and service design cases* *4.5 Intelligent vehicle product service design case* *Chapter 5 Prospects for the Development of Intelligent Product and Service Design* *5.1 Empowerment of service design* *5.2 Organization of Service Design* *5.3 Development Trend of Service Design*
Examination forms	*design project*
Study and examination requirements	*60% Final exams, 15% regular assignments,* 15% *classroom performance, 10% attendance.*

Reading list	*1. Research and Practice of Service Design, Jiajia Chen, China Architecture & Building Press, 2023-12* *2. Wang Guosheng. Service Design & Innovation. China Architecture & Building Press.2021.3.ISBN: 9787112177455* *3. [A] Thomas. Lockwood, Li Cuirong, Li Yongchun. Design Thinking: Integrating Innovation, User Experience and Brand Value. Publishing House of Electronics Industry.2020.ISBN: 9787121172359* *4. Luo Shijian, Zhu Shangshang. Service Design. China Machine Press.2021.ISBN: 9787111347361*

Module designation	*Smart Kitchenware Design*
Semester(s) in which the module is taught	*5*
Person responsible for the module	*Yi Zhuang*
Language	*Chinese*
Relation to curriculum	*Elective* *"Smart Kitchenware Design" is a professional elective course in art design disciplines such as product design and industrial design, aiming to explore the integration of intelligent technology and traditional kitchenware design, and cultivate students' comprehensive ability in the fields of artificial intelligence, Internet of Things, and user experience design. With the rapid development of smart home technology, the kitchen, as the core scene of family life, is gradually becoming an important field of scientific and technological innovation. This course will guide students to design smart kitchenware products with functionality, convenience and aesthetic value based on user needs and advanced technology. The course covers core knowledge such as the design principles of smart kitchenware, the application of artificial intelligence and Internet of Things technology, user experience research methods, materials and manufacturing processes. Through case analysis, practical projects, etc., students are trained to independently design a set of smart kitchenware design*

	practice ability, exercise students' ability to think globally and "craftsman spirit", and be able to keep pace with the times.
Teaching methods	*lecture, lesson, lab works, project, seminar etc.*
Workload (incl. contact hours, self-study hours)	*Contact hours:64 including lecture, exercise, and test.* *Private study including examination preparation, specified in hours:56*
Credit points	*4 ECTS CP*
Required and recommended prerequisites for joining the module	*N/A*
Module objectives/intended learning outcomes	*Knowledge: The relevant knowledge of intelligent tableware design can master the basic theoretical system of tableware design, the professional knowledge of mathematics, natural science, engineering foundation and related disciplines required in the field of industrial design, and the applied engineering knowledge in the fields of material forming process, mechanical analysis, electronics, model making and other fields of industrial design.* *Skills: The development of Chinese tableware products, from market research, determination of design scheme to design and development of the design process, the design of the major design elements of tableware, intelligent hardware, sensors, Internet of Things and other technologies in the application of kitchenware design.* *Competences: Aesthetic literacy in line with the core values of socialism, including two-dimensional vision, three-dimensional modeling, dynamic interaction, color materials, etc., and the production and testing of product prototypes.*
Content	*Chapter 1 Overview of the Smart Home Industry* *Introduce the basic concept of smart home and trace its development process from automation to intelligence; Discuss the application of technologies such as the Internet of Things (IoT), artificial intelligence (AI), and big data in smart homes; Analyze the current smart*

	home market size, key players, and future development trends. *Chapter 2 Introduction to Kitchenware* *Introduce in detail the basic classification and functions of various types of kitchenware (such as pots and pans, knives, tableware, related electrical appliances, etc.); Compare the differences between traditional kitchenware and modern kitchenware in terms of design, materials and functions; Discuss the principles of ergonomics in kitchenware design and how to improve comfort and efficiency.* *Chapter 3 Application of Intelligent Technology in the Field of Kitchenware* *Define smart kitchenware and introduce its core features, such as automation, intelligence, interconnection, etc.; Introduce common smart kitchenware such as smart ovens, smart refrigerators, and smart coffee machines; Analyze the user's experience and market feedback on smart kitchenware, and discuss its advantages and disadvantages.* *Chapter 4 Introduction to Chinese Food and Related Kitchen Utensils* *Introduce the cooking methods of Chinese food (e.g. stir-frying, steaming, boiling, etc.) and their special needs for kitchenware; Explore how to combine traditional Chinese kitchenware with modern intelligent technology to improve cooking efficiency; Several successful Chinese smart kitchenware design cases are displayed, and their design concepts and innovations are analyzed.* *Chapter 5 Introduction to Japanese and Korean related kitchenware* *Introduce the cooking methods of Korean and Japanese food and their special needs for kitchen utensils; Discuss the combination of Korean and Japanese traditional kitchenware and modern intelligent technology, and its application in enhancing the cooking experience; Several successful Korean and Japanese smart kitchenware design cases are displayed, and their design concepts and innovations are analyzed.* *Chapter 6 Introduction to Western Food and Related Kitchenware*

	Introduce the cooking methods of Western food (such as roasting, frying, baking, etc.) and their special needs for kitchenware; To explore the combination of traditional Western kitchenware and modern intelligent technology, and its application in enhancing the cooking experience; Several successful Western smart kitchenware design cases are displayed, and their design concepts and innovations are analyzed. *Chapter 7 Smart Kitchenware Design Process* *Introduce the complete process of kitchenware design from concept to finished product, including demand analysis, concept design, prototyping, testing and improvement, etc.; Discuss how to conduct user research, analyze user needs, and provide a basis for kitchenware design; Introduce the materials and their characteristics commonly used in kitchenware design, and discuss how to choose the right materials and processes; Introduce the methods of prototyping kitchenware and how to conduct functional testing and user experience testing.* *Chapter 8 Innovation and Development of Smart Kitchenware* *Discuss the current innovation trends in kitchenware design, such as intelligence, environmentally friendly materials, modular design, etc.; Analyze the future development direction of smart kitchenware, such as more advanced AI applications, wider interconnection, etc.; Discuss how to integrate sustainable development concepts into kitchenware design, such as using environmentally friendly materials and reducing energy consumption; Introduce the importance of interdisciplinary collaboration in kitchenware design, such as with engineering, materials science, user experience design, and more.*
Examination forms	*design project*
Study and examination requirements	*70% Final exams, 30% regular assignments*
Reading list	*1.Peter Debbs. Product Design and Modeling[M], China Machine Press, 2022* *2.Miao Yuhong. Product Design and Development[M] . Publishing House of Electronics Industry.2022.*

	3.JIANG Bin. CMF Design of Creative Products[M] .Publishing House of Electronic Industry.2020. *4.Yan Jinnan, Zhu Xiaobin, You what. The Complete Book of Smart Home Design[M] .Jiangsu Phoenix Science and Technology Press.2022.*

Module designation	*Design Management and Strategy*
Semester(s) in which the module is taught	*6*
Person responsible for the module	*Guiping Xu*
Language	*Chinese*
Relation to curriculum	*Elective* *Design Management and Strategy is an elective course for the design and industrial design major, which aims to cultivate students' professional and practical management skills and design management knowledge and skills required to play a management role in corporate organizations and projects. Gain a comprehensive understanding of how design management relates to previous courses, its place in business, and the importance of design in bringing creative value to an organization. Be able to correctly treat the culture of design management, have a certain forward-looking height and perspective in the future design management analysis, pay attention to absorbing its achievements and fine traditions, and be able to inherit, innovate and develop, and lay a solid foundation towards the goal of becoming a product manager.*
Teaching methods	*lecture, lesson, lab works, project, seminar etc.*
Workload (incl. contact hours, self-study hours)	*Contact hours:32 including lecture, exercise. Private study including examination preparation, specified in hours:58*
Credit points	*3 ECTS CP*
Required and recommended	*N/A*

prerequisites for joining the module	
Module objectives/intended learning outcomes	*Knowledge: From the whole process management of the creative system chain such as demand strategy, target positioning, coordination personnel, design scheme, implementation management, to market evaluation, etc., understand the elements of creation and innovation, the correlation between products and production and design, the design process and design organic system of design management, and various legal protection related to design.* *Skills: Flexibly apply professional knowledge to professional practice, and be able to take into account the perspectives of society, health, safety, law, management and cultural environment in practice, carry out comprehensive practical activities of industrial design seeking truth from facts, solve real industrial design problems, and propose valuable design solutions.* *Competences: Able to integrate design and development in combination with user research and product definition, design, interaction, service and other aspects of knowledge, have design innovation thinking and ability, be able to integrate social, health, safety, legal, cultural and environmental factors, reflect the sense of innovation in the design and development process, be able to clarify and abide by relevant professional ethics and norms in the design and development of industrial products, production and other business practices, fulfill job responsibilities, have a scientific and sustainable green design concept and humanistic design feelings, understand design activities and the environment, The relationship between social development and the sense of social responsibility.*
Content	*Chapter 1 Basic Concepts* *1.1 Design; Manage* *1.2 Strategy, corporate strategy* *1.3 Design Management* *Chapter 2 Design Management and Design Innovation* *2.1 Design innovation and enterprise innovation*

	2.2 Design management and design innovation *Chapter 3 Design Strategy* *3.1 Design strategy and corporate strategy* *3.2 Types of Design Strategies* *Chapter 4 Teaching content of corporate image design management* *4.1 Corporate image design management* *4.2 Brand image design management* *4.3 Product image design management* *Chapter 5 Design Team Management* *5.1 Design Organization* *5.2 Designers and Design Managers* *5.3 Design Communication* *Chapter 6 Design Project Management* *6.1 Project Management Overview* *6.2 Overview of the design project* *6.3 Design project management and control* *6.4 Design Project Evaluation* *Chapter VII Design Regulations and Contract Management* *7.1 Intellectual Property* *7.2 Patents* *7.3 Design Contracts* *Chapter 8 Design Innovation Risk Management and Design Knowledge Management* *8.1 Innovation and Management* *8.2 Innovation risks and how to deal with them* *8.3 Design in the Information Age* *8.4 Design knowledge management system*
Examination forms	*design project*
Study and examination requirements	*60% Final exams, 40% regular assignments*
Reading list	*1.Product Manager Methodology, Danyang Zhao, Beijing: People's Posts and Telecommunications Press, 2024.03, ISBN: 9787115626776*

	2.Design Management, Cheng Qiaoming, Chinese University Press, 2013.12, Design Management Classic Cases in Europe and America, Huang Wei, Beijing Institute of Technology Press, 2004.09 *3.Design Management, by Hua Jingyong, Beijing Institute of Technology Press, 2007.05* *4.Design Management and Design Innovation--Theory and Application Cases, by Li Yan, Chemical Industry Press, 2009.*

Module designation	*Social Innovation Design*
Semester(s) in which the module is taught	*6*
Person responsible for the module	*Mingjie Zhu*
Language	*Chinese*
Relation to curriculum	*Elective* *This course is an elective course in the direction of industrial design vehicles in the third year, which helps students better understand the society, expand their design horizons, increase the sense of social responsibility of designers, and use the design skills they have mastered to propose innovative solutions.*
Teaching methods	*lecture, lesson, lab works, project, seminar etc.*
Workload (incl. contact hours, self-study hours)	*Contact hours:32 including lecture, exercise. Private study including examination preparation, specified in hours:58*
Credit points	*3 ECTS CP*
Required and recommended prerequisites for joining the module	*N/A*
Module objectives/intended learning outcomes	*Knowledge: Theories and cases related to social innovation design, and innovation consciousness in design and development.* *Skills: Able to effectively communicate and exchange with industry peers and the public on complex industrial*

	design issues, including writing reports, design manuscripts, making statements, clearly expressing or responding to instructions, and have an international perspective and certain foreign language application skills, and be able to communicate and exchange in a cross-cultural context. *Competences: Use social innovation design methods to propose innovative solutions, teamwork skills, leadership, social responsibility, self-directed learning and lifelong learning awareness, continuous learning and adaptability to development.*
Content	*Chapter 1 Introduction to Social Innovation Design* *1.1 Definition, development background and core values of social innovation design* *1.2 Classification of social problems and typical cases* *1.3 The difference between social innovation and traditional design* *Chapter 2 Design Thinking and Analysis of Social Issues* *2.1 Design Thinking Methodology* *2.2 Social Problem Analysis Tools: Stakeholder Map, Problem Tree Analysis* *2.3 Case Study: IDEO's Clean Water Project* *Chapter 3 Participatory Design and Community Collaboration* *3.1 Participatory Design Principles (Community-Led, Empowering Disadvantaged Groups)* *3.2 Collaboration tools: co-creation workshops, open decision-making processes* *3.3 Case study: Resident participation in slum upgrading in Brazil* *Chapter 4 Sustainable Design and Circular Economy* *4.1 Sustainable Design Principles (Cradle to Cradle, Life Cycle Assessment)* *4.2 Circular economy model: closed-loop material and shared service design* *4.3 Case study: Patagonia's clothing recycling program* *Chapter 5 Business Models of Social Enterprises*

	5.1 Types of social enterprises: B Corp, social entrepreneurship, impact investment *5.2 Sustainable Business Model Canvas* *5.3 Case: Controversy and Improvement of TOMS "Buy One, Donate One" Model* *Chapter 6 Project Practice: From Research to Landing* *6.1 Practice process: topic selection, research, prototype development, testing iteration* *6.2 Project management tools: Gantt charts, agile development* *6.3 Resource Integration: Government/NGO/Enterprise Cooperation Channels* *Chapter 7 Reflection and Prospects* *7.1 Limitations of Social Innovation Design* *7.2 Emerging Trends: Digital Social Innovation, Glocalization* *7.3 Career paths: social designer, policy consultant, NGO manager*
Examination forms	*design project*
Study and examination requirements	*60% Final exams, 30% attendance, 5% regular assignments, 5% classroom performance.*
Reading list	*1.Chen Dongliang Navy. Design for Livelihood and Society. China Machine Press. 2020.* *2.Papanek. Designed for the real world. CITIC Press, 2013.* *3.Ji Tie. Community research and social innovation design[M].Hunan University Press,2017.* *4.Ezo Mancini, Mancini, Zhong Fang, et al. Design, in the era of everyone's design: an introduction to social innovation design[M].Electronic Industry Press,2016.*

Module designation	*Understanding Flight* *(The course description is not available in the school education system, because it is newly added and will be available by 2026 spring semester).*
Semester(s) in which the module is taught	*6*

Person responsible for the module	*N/A*
Language	*Chinses*
Relation to curriculum	*Elective*
Teaching methods	*N/A*
Workload (incl. contact hours, self-study hours)	*Contact hours:48 including lecture, exercise.Private study including examination preparation, specified in hours: 42*
Credit points	*3 ECTS CP*
Required and recommended prerequisites for joining the module	*N/A*
Module objectives/intended learning outcomes	*N/A*
Content	*N/A*
Examination forms	*N/A*
Study and examination requirements	*N/A*
Reading list	*N/A*

Module designation	*Professional English* *(The course description is not available in the school education system, because it is newly added and will be available by 2026 spring semester).*
Semester(s) in which the module is taught	*6*
Person responsible for the module	*N/A*
Language	*Chinses*
Relation to curriculum	*Elective*
Teaching methods	*N/A*
Workload (incl. contact hours, self-study hours)	*Contact hours:16 including lecture, exercise.Private study including examination preparation, specified in hours: 44*
Credit points	*2 ECTS CP*

Required and recommended prerequisites for joining the module	*N/A*
Module objectives/intended learning outcomes	*N/A*
Content	*N/A*
Examination forms	*N/A*
Study and examination requirements	*N/A*
Reading list	*N/A*

Module designation	*Design and Investment* *(The course description is not available in the school education system, because it is newly added and will be available by 2026 spring semester).*
Semester(s) in which the module is taught	*6*
Person responsible for the module	*N/A*
Language	*Chinses*
Relation to curriculum	*Elective*
Teaching methods	*N/A*
Workload (incl. contact hours, self-study hours)	*Contact hours:16 including lecture, exercise.Private study including examination preparation, specified in hours: 44*
Credit points	*2 ECTS CP*
Required and recommended prerequisites for joining the module	*N/A*
Module objectives/intended learning outcomes	*N/A*
Content	*N/A*
Examination forms	*N/A*
Study and examination requirements	*N/A*

Reading list	*N/A*

Module designation	*Aeronautical Design* *(The course description is not available in the school education system, because it is newly added and will be available by 2026 spring semester).*
Semester(s) in which the module is taught	*6*
Person responsible for the module	*N/A*
Language	*Chinses*
Relation to curriculum	*Elective*
Teaching methods	*N/A*
Workload (incl. contact hours, self-study hours)	*Contact hours:32 including lecture, exercise.Private study including examination preparation, specified in hours: 58*
Credit points	*3 ECTS CP*
Required and recommended prerequisites for joining the module	*N/A*
Module objectives/intended learning outcomes	*N/A*
Content	*N/A*
Examination forms	*N/A*
Study and examination requirements	*N/A*
Reading list	*N/A*

Module designation	*Automobile consumer psychology* *(The course description is not available in the school education system, because it is newly added and will be available by 2026 spring semester).*
Semester(s) in which the module is taught	*6*

Person responsible for the module	*N/A*
Language	*Chinses*
Relation to curriculum	*Elective*
Teaching methods	*N/A*
Workload (incl. contact hours, self-study hours)	*Contact hours:32 including lecture, exercise.Private study including examination preparation, specified in hours: 58*
Credit points	*3 ECTS CP*
Required and recommended prerequisites for joining the module	*N/A*
Module objectives/intended learning outcomes	*N/A*
Content	*N/A*
Examination forms	*N/A*
Study and examination requirements	*N/A*
Reading list	*N/A*

Module designation	*Automobile Culture*
Semester(s) in which the module is taught	*7*
Person responsible for the module	*Ying Wang*
Language	*Chinese*
Relation to curriculum	*Elective* *"Automobile Culture" is a professional elective course for automotive service engineering, which plays an important leading role in the curriculum system. Through the study of the course, students will understand the history of the development of automobiles, famous automobile companies and their brands, automobile research and development, production, operation, environmental protection and sustainable development and other related knowledge,*

	and correctly understand the impact of the automobile industry on the world and society.
Teaching methods	*lecture, lesson, lab works, project, seminar*
Workload (incl. contact hours, self-study hours)	*Contact hours:32 including lecture, exercise. Private study including examination preparation, specified in hours:58*
Credit points	*3 ECTS CP*
Required and recommended prerequisites for joining the module	*N/A*
Module objectives/intended learning outcomes	*Knowledge: Cultivate students' interest and hobby in the automotive industry, and cultivate their appreciation for cars; train students to extract effective information in objective practice and correctly understand the impact of the automotive industry on the world and society.* *Skills: Possess cultural confidence and patriotic 情怀; have the mission sense of the times to be diligent in learning, good at creating, willing to contribute, and brave in taking responsibility; and embody the core values of patriotism, dedication, honesty, and friendliness.* *Competences: Cultivate students' objective understanding and analytical ability of the development history of the automotive industry, study the impact of the automotive industry on society and the environment, and cultivate new-generation automotive engineers with patriotic, industrious, honest, and friendly socialist core values.*
Content	*Chapter 1 History of Automobiles* *Narrate the human transportation before the birth of the automobile; the birth and development of internal combustion engine engines and modern cars; several important changes in the world automobile industry and the changes in the world car scene after the changes. Briefly introduce the rise of China's automobile industry after the founding of New China*

	and the development trend of the world automobile industry. *Chapter 2 Overview of Cars* *Analyze the status of modern cars in today's society. The production of cars can drive the healthy development of the national economy and become a pillar industry in the economic development of the nation. Introduce the concept of cars, their overall structure, the principle of car operation, car characteristic parameters and performance indicators, as well as the classification and product model coding rules of cars.* *Chapter 3 The Appearance and Color of Cars* *Introduce the development process of car appearance, and explain the advantages and disadvantages of several historically representative shapes such as the horse-type, beetles-type, fish-type, ship-type, and wedge-type, as well as the reasons for their changes. Introduce the influence of car body color on traffic safety, appreciation habits, maintenance and maintenance, and market sales.* *Chapter 4 Famous car companies and trademarks* *Introduce the development history, business characteristics, and cooperation with Chinese enterprises of various world countries and famous Chinese car companies; the historical famous models and current world famous models of various famous car companies; introduce the trademarks and logos of car companies and their meanings, and explain the impact of car trademark culture on the sales of cars in different regions of the world.* *Chapter 5 Automotive celebrities* *Introduce the achievements of famous figures in the history of the world's automotive industry, such as Karl Benz, Gottlieb Daimler, Henry Ford, and other prominent figures in the development of China's automotive industry, such as Rao Bin.* *Chapter 6 Automotive Sports* *Introduce the origin of car races, the types of car races popular in history, the major car racing events in the world today, the achievements of famous*

	racing drivers in car racing, and the unique charm of car racing. *Chapter 7 Energy-saving and New Energy Vehicles* *Discussing new technologies for energy-saving and emission-reduction in internal combustion engine vehicles; new energy electric drive vehicles.* *Chapter 8 Intelligent Connected Vehicles* *Discussing the classification and key technologies of intelligent connected vehicles, analyzing the current situation and trends of intelligent connected vehicles, and introducing typical driving assistance technologies.*
Examination forms	*oral presentation, essay, design project*
Study and examination requirements	*60%Final exams，20%attendance，20%Classroom performance.*
Reading list	*1. Peng Guoping, Zeng Jianqiang. Automotive Culture[M]. Wuhan: Huazhong University of Science and Technology Press, 2016.* *2. Cao Hongbing. Automotive Culture[M]. Beijing: Machinery Industry Press, 2019.* *3. Zhang Jinzhu. Illustrated Principles and Structure of Automobiles (Color Edition)[M]. Beijing: Chemical Industry Press, 2016.*

Option 2

Module designation	*Service Design*
Semester(s) in which the module is taught	*5*
Person responsible for the module	*Shun Zeng*
Language	*Chinese*

Relation to curriculum	*Elective* *Guided by the core values of socialism, the coordinated development of curriculum knowledge, students' work ability and overall quality is the goal, closely integrated with the training objectives of the discipline, focusing on design application and practice, closely focusing on "user-centered", focusing on user experience, and combining projects and topics for innovative exploration and research. This course has great innovative significance for industrial design, advertising creation and design, commercial design and display, and digital media design. At the same time, combined with the training plan and requirements of the undergraduate, the training requirements oriented by "applied practice" are closely related to the training goals of applied talents. At the same time, it interacts with the upstream and downstream of related courses to form a system, and objectively designs and researches the program.*
Teaching methods	*lecture, lesson, lab works, project, seminar etc.*
Workload (incl. contact hours, self-study hours)	*Contact hours:32 including lecture, exercise. Private study including examination preparation, specified in hours: 58*
Credit points	*3 ECTS CP*
Required and recommended prerequisites for joining the module	*N/A*
Module objectives/intended learning outcomes	*Knowledge: The system theory, method, process and key technical points of service design, the basic knowledge of peripheral disciplines required for product design, the intellectual property laws and regulations, safety and environmental protection policies related to product design, the history, development trend and career development direction of industrial design.* *Skills: Design expression ability, innovation ability, proficient in various design expression tools, through preliminary research and research design trends.* *Competences: Have the ability to combine design culture with modern business, be good at communication and cooperation in design, have critical spirit, creative thinking,*

	aesthetic literacy, teamwork ability, and have a certain international vision and communication, competition and cooperation in a cross-cultural environment.
Content	*Chapter 1 Defining Service Design* *1.1 Definition of Services* *1.2 Service design economy* *1.3 What is Service Design* *Chapter 2 Language of Service Design* *2.1 Principles of Service Design* *2.2 Benefit-Sharing* *2.3 Value co-creation* *2.4 Touchpoints* *2.5 User Journeys* *Chapter 3 Processes and Tools for Service Design* *3.1 Research and analysis* *3.2 Service Concept Concept* *3.3 Prototyping, testing and iteration* *3.4 Service design, implementation and evaluation* *Chapter 4 Intelligent Product and Service Design Practice* *4.1 Overview of global service design practices* *4.2 Smart wearable medical product and service design cases* *4.3 Intelligent digital conference product and service design cases* *4.4 Intelligent public product and service design cases* *4.5 Intelligent vehicle product service design case* *Chapter 5 Prospects for the Development of Intelligent Product and Service Design* *5.1 Empowerment of service design* *5.2 Organization of Service Design* *5.3 Development Trend of Service Design*
Examination forms	*design project*
Study and examination requirements	*60% Final exams, 15% regular assignments,* 15% *classroom performance, 10% attendance.*

Reading list	*1. Research and Practice of Service Design, Jiajia Chen, China Architecture & Building Press, 2023-12* *2. Wang Guosheng. Service Design & Innovation. China Architecture & Building Press.2021.3.ISBN: 9787112177455* *3. [A] Thomas. Lockwood, Li Cuirong, Li Yongchun. Design Thinking: Integrating Innovation, User Experience and Brand Value. Publishing House of Electronics Industry.2020.ISBN: 9787121172359* *4. Luo Shijian, Zhu Shangshang. Service Design. China Machine Press.2021.ISBN: 9787111347361*

Module designation	*Food Packaging Design* *(The course description is not available in the school education system, because it is newly added and will be available by 2026 spring semester).*
Semester(s) in which the module is taught	*6*
Person responsible for the module	*N/A*
Language	*Chinses*
Relation to curriculum	*Elective*
Teaching methods	*N/A*
Workload (incl. contact hours, self-study hours)	*Contact hours:32 including lecture, exercise.Private study including examination preparation, specified in hours: 58*
Credit points	*3 ECTS CP*
Required and recommended prerequisites for joining the module	*N/A*
Module objectives/intended learning outcomes	*N/A*
Content	*N/A*
Examination forms	*N/A*
Study and examination requirements	*N/A*

Reading list	*N/A*

Module designation	*Technical Specifications for the Construction* *(The course description is not available in the school education system, because it is newly added and will be available by 2026 spring semester).*
Semester(s) in which the module is taught	*6*
Person responsible for the module	*N/A*
Language	*Chinses*
Relation to curriculum	*Elective*
Teaching methods	*N/A*
Workload (incl. contact hours, self-study hours)	*Contact hours:32 including lecture, exercise.Private study including examination preparation, specified in hours: 58*
Credit points	*3 ECTS CP*
Required and recommended prerequisites for joining the module	*N/A*
Module objectives/intended learning outcomes	*N/A*
Content	*N/A*
Examination forms	*N/A*
Study and examination requirements	*N/A*
Reading list	*N/A*

Module designation	*Commercial Intelligent Electronic Technology* *(The course description is not available in the school education system, because it is newly added and will be available by 2026 spring semester).*
Semester(s) in which the module is taught	*6*

Person responsible for the module	*N/A*
Language	*Chinses*
Relation to curriculum	*Elective*
Teaching methods	*N/A*
Workload (incl. contact hours, self-study hours)	*Contact hours: 64 including lecture, exercise.Private study including examination preparation, specified in hours: 56*
Credit points	*4 ECTS CP*
Required and recommended prerequisites for joining the module	*N/A*
Module objectives/intended learning outcomes	*N/A*
Content	*N/A*
Examination forms	*N/A*
Study and examination requirements	*N/A*
Reading list	*N/A*

Module designation	*Smart Kitchenware Design*
Semester(s) in which the module is taught	*5*
Person responsible for the module	*Yi Zhuang*
Language	*Chinese*
Relation to curriculum	*Elective* *"Smart Kitchenware Design" is a professional elective course in art design disciplines such as product design and industrial design, aiming to explore the integration of intelligent technology and traditional kitchenware design, and cultivate students' comprehensive ability in the fields of artificial intelligence, Internet of Things, and user experience design. With the rapid development of*

	smart home technology, the kitchen, as the core scene of family life, is gradually becoming an important field of scientific and technological innovation. This course will guide students to design smart kitchenware products with functionality, convenience and aesthetic value based on user needs and advanced technology. The course covers core knowledge such as the design principles of smart kitchenware, the application of artificial intelligence and Internet of Things technology, user experience research methods, materials and manufacturing processes. Through case analysis, practical projects, etc., students are trained to independently design a set of smart kitchenware design practice ability, exercise students' ability to think globally and "craftsman spirit", and be able to keep pace with the times.
Teaching methods	*lecture, lesson, lab works, project, seminar etc.*
Workload (incl. contact hours, self-study hours)	*Contact hours:664 including lecture, exercise, and test.* *Private study including examination preparation, specified in hours:56*
Credit points	*4 ECTS CP*
Required and recommended prerequisites for joining the module	*N/A*
Module objectives/intended learning outcomes	*Knowledge: The relevant knowledge of intelligent tableware design can master the basic theoretical system of tableware design, the professional knowledge of mathematics, natural science, engineering foundation and related disciplines required in the field of industrial design, and the applied engineering knowledge in the fields of material forming process, mechanical analysis, electronics, model making and other fields of industrial design.* *Skills: The development of Chinese tableware products, from market research, determination of design scheme to design and development of the design process, the design of the major design elements of tableware, intelligent hardware, sensors, Internet of Things and other technologies in the application of kitchenware design.*

	Competences: Aesthetic literacy in line with the core values of socialism, including two-dimensional vision, three-dimensional modeling, dynamic interaction, color materials, etc., and the production and testing of product prototypes.
Content	*Chapter 1 Overview of the Smart Home Industry* *Introduce the basic concept of smart home and trace its development process from automation to intelligence; Discuss the application of technologies such as the Internet of Things (IoT), artificial intelligence (AI), and big data in smart homes; Analyze the current smart home market size, key players, and future development trends.* *Chapter 2 Introduction to Kitchenware* *Introduce in detail the basic classification and functions of various types of kitchenware (such as pots and pans, knives, tableware, related electrical appliances, etc.); Compare the differences between traditional kitchenware and modern kitchenware in terms of design, materials and functions; Discuss the principles of ergonomics in kitchenware design and how to improve comfort and efficiency.* *Chapter 3 Application of Intelligent Technology in the Field of Kitchenware* *Define smart kitchenware and introduce its core features, such as automation, intelligence, interconnection, etc.; Introduce common smart kitchenware such as smart ovens, smart refrigerators, and smart coffee machines; Analyze the user's experience and market feedback on smart kitchenware, and discuss its advantages and disadvantages.* *Chapter 4 Introduction to Chinese Food and Related Kitchen Utensils* *Introduce the cooking methods of Chinese food (e.g. stir-frying, steaming, boiling, etc.) and their special needs for kitchenware; Explore how to combine traditional Chinese kitchenware with modern intelligent technology to improve cooking efficiency; Several successful Chinese smart kitchenware design cases are displayed, and their design concepts and innovations are analyzed.*

	Chapter 5 Introduction to Japanese and Korean related kitchenware *Introduce the cooking methods of Korean and Japanese food and their special needs for kitchen utensils; Discuss the combination of Korean and Japanese traditional kitchenware and modern intelligent technology, and its application in enhancing the cooking experience; Several successful Korean and Japanese smart kitchenware design cases are displayed, and their design concepts and innovations are analyzed.* *Chapter 6 Introduction to Western Food and Related Kitchenware* *Introduce the cooking methods of Western food (such as roasting, frying, baking, etc.) and their special needs for kitchenware; To explore the combination of traditional Western kitchenware and modern intelligent technology, and its application in enhancing the cooking experience; Several successful Western smart kitchenware design cases are displayed, and their design concepts and innovations are analyzed.* *Chapter 7 Smart Kitchenware Design Process* *Introduce the complete process of kitchenware design from concept to finished product, including demand analysis, concept design, prototyping, testing and improvement, etc.; Discuss how to conduct user research, analyze user needs, and provide a basis for kitchenware design; Introduce the materials and their characteristics commonly used in kitchenware design, and discuss how to choose the right materials and processes; Introduce the methods of prototyping kitchenware and how to conduct functional testing and user experience testing.* *Chapter 8 Innovation and Development of Smart Kitchenware* *Discuss the current innovation trends in kitchenware design, such as intelligence, environmentally friendly materials, modular design, etc.; Analyze the future development direction of smart kitchenware, such as more advanced AI applications, wider interconnection, etc.; Discuss how to integrate sustainable development concepts into kitchenware design, such as using environmentally friendly materials and reducing energy*

	consumption; Introduce the importance of interdisciplinary collaboration in kitchenware design, such as with engineering, materials science, user experience design, and more.
Examination forms	*design project*
Study and examination requirements	*70% Final exams, 30% regular assignments*
Reading list	*1.Peter Debbs. Product Design and Modeling[M], China Machine Press, 2022* *2.Miao Yuhong. Product Design and Development[M] . Publishing House of Electronics Industry.2022.* *3.JIANG Bin. CMF Design of Creative Products[M] .Publishing House of Electronic Industry.2020.* *4.Yan Jinnan, Zhu Xiaobin, You what. The Complete Book of Smart Home Design[M] .Jiangsu Phoenix Science and Technology Press.2022.*

Module designation	*Food Aesthetic Design* *(The course description is not available in the school education system, because it is newly added and will be available by 2026 spring semester).*
Semester(s) in which the module is taught	*6*
Person responsible for the module	*N/A*
Language	*Chinses*
Relation to curriculum	*Elective*
Teaching methods	*N/A*
Workload (incl. contact hours, self-study hours)	*Contact hours:16 including lecture, exercise.Private study including examination preparation, specified in hours: 44*
Credit points	*2 ECTS CP*
Required and recommended prerequisites for joining the module	*N/A*

Module objectives/intended learning outcomes	*N/A*
Content	*N/A*
Examination forms	*N/A*
Study and examination requirements	*N/A*
Reading list	*N/A*

Module designation	*Professional English* *(The course description is not available in the school education system, because it is newly added and will be available by 2026 spring semester).*
Semester(s) in which the module is taught	*6*
Person responsible for the module	*N/A*
Language	*Chinses*
Relation to curriculum	*Elective*
Teaching methods	*N/A*
Workload (incl. contact hours, self-study hours)	*Contact hours:16 including lecture, exercise.Private study including examination preparation, specified in hours: 44*
Credit points	*2 ECTS CP*
Required and recommended prerequisites for joining the module	*N/A*
Module objectives/intended learning outcomes	*N/A*
Content	*N/A*
Examination forms	*N/A*
Study and examination requirements	*N/A*
Reading list	*N/A*

Module designation	*Transportation Vehicle Modeling Design* *(The course description is not available in the school education system, because it is newly added and will be available by 2026 spring semester).*
Semester(s) in which the module is taught	*6*
Person responsible for the module	*N/A*
Language	*Chinses*
Relation to curriculum	*Elective*
Teaching methods	*N/A*
Workload (incl. contact hours, self-study hours)	*Contact hours:64 including lecture, exercise.Private study including examination preparation, specified in hours: 56*
Credit points	*4 ECTS CP*
Required and recommended prerequisites for joining the module	*N/A*
Module objectives/intended learning outcomes	*N/A*
Content	*N/A*
Examination forms	*N/A*
Study and examination requirements	*N/A*
Reading list	*N/A*

Module designation	*Design and Investment* *(The course description is not available in the school education system, because it is newly added and will be available by 2026 spring semester).*
Semester(s) in which the module is taught	*6*
Person responsible for the module	*N/A*

Language	*Chinses*
Relation to curriculum	*Elective*
Teaching methods	*N/A*
Workload (incl. contact hours, self-study hours)	*Contact hours:16 including lecture, exercise.Private study including examination preparation, specified in hours: 44*
Credit points	*2 ECTS CP*
Required and recommended prerequisites for joining the module	*N/A*
Module objectives/intended learning outcomes	*N/A*
Content	*N/A*
Examination forms	*N/A*
Study and examination requirements	*N/A*
Reading list	*N/A*

Module designation	*Commercial Kitchen Comprehensive Design Application*
Semester(s) in which the module is taught	*7*
Person responsible for the module	*Gui Pin Xu*
Language	*Chinese*
Relation to curriculum	*Elective* *This course is the basic course of industrial design (smart commercial kitchen system engineering) undergraduate discipline, and it is also the core course of the major. It aims to lead students to make practical and comprehensive use of various smart kitchen knowledge they have learned before, and through systematic integrated application, from intelligent technology, safety management, design planning, layout planning, ventilation and smoke exhaust, water supply and power supply, energy conservation and*

	environmental protection and other system engineering links, to consolidate and deepen the understanding and practical application of all learning knowledge.
Teaching methods	*lecture, lesson, lab works, project, seminar etc.*
Workload (incl. contact hours, self-study hours)	*Contact hours:64 including lecture, exercise. Private study including examination preparation, specified in hours:56*
Credit points	*4ECTS CP*
Required and recommended prerequisites for joining the module	*N/A*
Module objectives/intended learning outcomes	*Knowledge: Master the basic mathematics, natural sciences, engineering fundamentals, and related discipline knowledge required in the field of industrial design, which can be used to solve complex engineering problems in the field of industrial desig* *Skills: Capable of applying the basic principles of mathematics, natural sciences, and engineering sciences to identify, express, and analyze complex engineering problems such as industrial design processes and methods, industrial product design and development, and product design quality control through literature research to obtain effective conclusions.* *Competences: Integrating factors such as society, health, safety, law, culture, and environment, design systems, processes, and equipment that meet the needs of industrial design, and embody innovative awareness in the design and development phase.*
Content	*Chapter 1 Introduction to Commercial Kitchen Design Technology* *Technical functions and characteristics of commercial kitchen design; technical difficulties in commercial kitchen design; characteristics, current situation and trends of commercial kitchen design.* *Chapter 2 Basic Application of Commercial Kitchen Intelligent Technology*

	Basic types of intelligent technology and their application scenarios; Possibilities of applying intelligent technology in commercial kitchen design *Chapter 3 Safety Management in Commercial Kitchen Design* *Safety considerations in commercial kitchen design.* *Chapter 4 Commercial Kitchen Design Planning* *Principles of commercial kitchen design planning; Categories and selection of commercial kitchen equipment; Drawing standards and drafting in commercial kitchen design* *Chapter 5 Commercial Kitchen Layout Planning* *Content of commercial kitchen layout design; Principles of commercial kitchen layout design; Procedures for commercial kitchen layout design; Layout design of commercial kitchen equipment.* *Chapter 6 Design of Commercial Kitchen Ventilation and Exhaust System* *Analysis of kitchen pollution sources; design calculation of kitchen air intake and ducts; planning and design of kitchen exhaust ventilation; construction technology of exhaust ventilation system.* *Chapter 7 Commercial Kitchen Water Supply and Power Design* *Kitchen water supply and drainage design knowledge; drainage system design methods; drainage system drawings; basic knowledge of kitchen power supply system; key points of kitchen power distribution system design; design and drawing of kitchen lighting facilities.* *Chapter 8 Energy-saving and Environmental Protection Design of Commercial Kitchen* *Characteristics of kitchen energy consumption; Analysis of reasons for kitchen energy waste; Application of kitchen energy-saving and environmental protection technologies.* *Chapter 9 Comprehensive Practice of Commercial Kitchen Design*

	Apply all knowledge systems to integrate smart commercial kitchen design.
Examination forms	*oral presentation, essay, design project*
Study and examination requirements	*60%Final exams, 20%regular assignments , 20%attendance.*
Reading list	*[1] Public Kitchen System Engineering Design. Authored by Zhang Yinzhen, Dalian: Dalian University of Technology Press, January 2017, First Edition.* *[2] T/SRCA000003-2019, Commercial Kitchen Design Specification [S]. Shanghai: Shanghai Catering and Cooking Trade Association, 2019.* *[3] JGJ64-2017, Standard for Architectural Design of Catering Buildings [S]. Beijing: China Architecture & Building Press, 2017.* *[4] Peter Schwarz, Fritz Lemme, Peter Neumann, Frank Wagner. Professional Kitchen—Planning, Design, Equipment [M]. Berlin: HUSS-MEDIEN GmbH, 2013.*

Option 3

Module designation	*Smart Home Control System*
Semester(s) in which the module is taught	*5*
Person responsible for the module	*Yi Zhuang*
Language	*Chinese*
Relation to curriculum	*Compulsory* *This course is a professional platform course for art and design disciplines such as product design and industrial design. Through the study of the basic concepts, development history and main application fields of*

	smart home control system, students can have a holistic and comprehensive understanding of smart home. At the same time, it introduces the technologies involved in smart home in depth, including sensor technology, wireless communication technology, artificial intelligence technology, etc. In-depth learning of the design principles and methods of smart home systems, including system architecture design, functional module design, data transmission and processing, etc. Through project design practice, students will develop the ability to independently design and build their own smart home systems. The main task of this course is to cultivate students' design practice ability based on the social background, exercise students' ability to think globally and "craftsman spirit", and be able to keep pace with the times.
Teaching methods	*lecture, lesson, lab works, project, seminar*
Workload (incl. contact hours, self-study hours)	*Contact hours:32 including lecture, exercise.Private study including examination preparation, specified in hours:58*
Credit points	*3 ECTS CP*
Required and recommended prerequisites for joining the module	*N/A*
Module objectives/intended learning outcomes	*Knowledge: Industrial Design Knowledge: Master the professional knowledge of mathematics, natural sciences, engineering fundamentals, and related disciplines required in the field of industrial design, and be able to apply it to solve practical engineering problems in fields such as material forming technology, mechanical analysis, electronics, and model making.* *Skills: Master basic professional theoretical knowledge of design history, design psychology, ergonomics, etc.; master the general procedures and methods of industrial design; master comprehensive skills including freehand drawing, model making, layout reports, etc.* *Competences: Possess the ability to integrate user research, product definition, design, interaction, and service knowledge for integrated design and development.*

Content	*Chapter 1 Basic Theory of Smart Home* *The development background and concept of smart home, as well as smart home technology, including Internet of Things technology, wireless communication technology, artificial intelligence, big data analysis, cloud computing, etc.; the development prospects and market applications of smart home* *Chapter 2: Host Design of Smart Home* *Performance indicators and functions of the KC868-S smart home host, the main host for all-home intelligent integration control; KC868-G smart home host and performance; programmable controller; home intelligent distribution box, industrial intelligent distribution box, etc.* *Chapter 3 Design of Smart Home Engineering* *Lighting Control, Curtain Control, Window Control, Door Lock Control, Appliance Control, Environmental Monitoring, Security Control, Scenario Control.* *Chapter 4: Analysis of Typical Smart Home Layout Solutions* *Analyze case studies of smart home layouts based on the spaces of two-bedroom one-living room, three-bedroom two-living room, two-story villa, and three-story villa.* *Chapter 5 LED Dimming and Color Temperature Control Light Based on ZigBee Technology* *Project idea, LED lighting source technology trends, technical performance comparison of ZigBee wireless ad-hoc network, customized LED case and function requirements based on ZigBee, scheme selection and hardware platform implementation of the customized LED case based on ZigBee.* *Chapter 6: Design of a Multi-functional Automatic Pet Feeder for Home Use* *Project proposal, system overview, system scheme design, system software program design, system debugging.*
Examination forms	*oral presentation, essay, design project, etc.*

Study and examination requirements	*10%Final exams, 20%regular assignments , 70%attendance.*
Reading list	*[1] Zhu Xiaobin, [M]. Jiangsu Phoenix Science and Technology Press. 2022.* *[2] Sun Xinhé. [M]. China Railway Publishing Co., Ltd. 2022.* *[3] Cheng Gang. [M]. Machine Press. 2020.*

Module designation	*Intelligent Lighting and Luminaire Design* *(The course description is not available in the school education system, because it is newly added and will be available by 2026 spring semester).*
Semester(s) in which the module is taught	*6*
Person responsible for the module	*N/A*
Language	*Chinses*
Relation to curriculum	*Elective*
Teaching methods	*N/A*
Workload (incl. contact hours, self-study hours)	*Contact hours:32 including lecture, exercise.Private study including examination preparation, specified in hours: 58*
Credit points	*3 ECTS CP*
Required and recommended prerequisites for joining the module	*N/A*
Module objectives/intended learning outcomes	*N/A*
Content	*N/A*
Examination forms	*N/A*
Study and examination requirements	*N/A*
Reading list	*N/A*

Module designation	*Smart Kitchenware Design*
Semester(s) in which the module is taught	*5*
Person responsible for the module	*Yi Zhuang*
Language	*Chinese*
Relation to curriculum	*Elective* *"Smart Kitchenware Design" is a professional elective course in art design disciplines such as product design and industrial design, aiming to explore the integration of intelligent technology and traditional kitchenware design, and cultivate students' comprehensive ability in the fields of artificial intelligence, Internet of Things, and user experience design. With the rapid development of smart home technology, the kitchen, as the core scene of family life, is gradually becoming an important field of scientific and technological innovation. This course will guide students to design smart kitchenware products with functionality, convenience and aesthetic value based on user needs and advanced technology. The course covers core knowledge such as the design principles of smart kitchenware, the application of artificial intelligence and Internet of Things technology, user experience research methods, materials and manufacturing processes. Through case analysis, practical projects, etc., students are trained to independently design a set of smart kitchenware design practice ability, exercise students' ability to think globally and "craftsman spirit", and be able to keep pace with the times.*
Teaching methods	*lecture, lesson, lab works, project, seminar etc.*
Workload (incl. contact hours, self-study hours)	*Contact hours:32 including lecture, exercise, and test.* *Private study including examination preparation, specified in hours:58*
Credit points	*3 ECTS CP*
Required and recommended prerequisites for joining the module	*N/A*

Module objectives/intended learning outcomes	*Knowledge: The relevant knowledge of intelligent tableware design can master the basic theoretical system of tableware design, the professional knowledge of mathematics, natural science, engineering foundation and related disciplines required in the field of industrial design, and the applied engineering knowledge in the fields of material forming process, mechanical analysis, electronics, model making and other fields of industrial design.* *Skills: The development of Chinese tableware products, from market research, determination of design scheme to design and development of the design process, the design of the major design elements of tableware, intelligent hardware, sensors, Internet of Things and other technologies in the application of kitchenware design.* *Competences: Aesthetic literacy in line with the core values of socialism, including two-dimensional vision, three-dimensional modeling, dynamic interaction, color materials, etc., and the production and testing of product prototypes.*
Content	*Chapter 1 Overview of the Smart Home Industry* *Introduce the basic concept of smart home and trace its development process from automation to intelligence; Discuss the application of technologies such as the Internet of Things (IoT), artificial intelligence (AI), and big data in smart homes; Analyze the current smart home market size, key players, and future development trends.* *Chapter 2 Introduction to Kitchenware* *Introduce in detail the basic classification and functions of various types of kitchenware (such as pots and pans, knives, tableware, related electrical appliances, etc.); Compare the differences between traditional kitchenware and modern kitchenware in terms of design, materials and functions; Discuss the principles of ergonomics in kitchenware design and how to improve comfort and efficiency.* *Chapter 3 Application of Intelligent Technology in the Field of Kitchenware* *Define smart kitchenware and introduce its core features, such as automation, intelligence,*

	interconnection, etc.; Introduce common smart kitchenware such as smart ovens, smart refrigerators, and smart coffee machines; Analyze the user's experience and market feedback on smart kitchenware, and discuss its advantages and disadvantages. *Chapter 4 Introduction to Chinese Food and Related Kitchen Utensils* *Introduce the cooking methods of Chinese food (e.g. stir-frying, steaming, boiling, etc.) and their special needs for kitchenware; Explore how to combine traditional Chinese kitchenware with modern intelligent technology to improve cooking efficiency; Several successful Chinese smart kitchenware design cases are displayed, and their design concepts and innovations are analyzed.* *Chapter 5 Introduction to Japanese and Korean related kitchenware* *Introduce the cooking methods of Korean and Japanese food and their special needs for kitchen utensils; Discuss the combination of Korean and Japanese traditional kitchenware and modern intelligent technology, and its application in enhancing the cooking experience; Several successful Korean and Japanese smart kitchenware design cases are displayed, and their design concepts and innovations are analyzed.* *Chapter 6 Introduction to Western Food and Related Kitchenware* *Introduce the cooking methods of Western food (such as roasting, frying, baking, etc.) and their special needs for kitchenware; To explore the combination of traditional Western kitchenware and modern intelligent technology, and its application in enhancing the cooking experience; Several successful Western smart kitchenware design cases are displayed, and their design concepts and innovations are analyzed.* *Chapter 7 Smart Kitchenware Design Process* *Introduce the complete process of kitchenware design from concept to finished product, including demand analysis, concept design, prototyping, testing and improvement, etc.; Discuss how to conduct user research, analyze user needs, and provide a basis for kitchenware design; Introduce the materials and their*

	characteristics commonly used in kitchenware design, and discuss how to choose the right materials and processes; Introduce the methods of prototyping kitchenware and how to conduct functional testing and user experience testing. *Chapter 8 Innovation and Development of Smart Kitchenware* *Discuss the current innovation trends in kitchenware design, such as intelligence, environmentally friendly materials, modular design, etc.; Analyze the future development direction of smart kitchenware, such as more advanced AI applications, wider interconnection, etc.; Discuss how to integrate sustainable development concepts into kitchenware design, such as using environmentally friendly materials and reducing energy consumption; Introduce the importance of interdisciplinary collaboration in kitchenware design, such as with engineering, materials science, user experience design, and more.*
Examination forms	*design project*
Study and examination requirements	*70% Final exams, 30% regular assignments*
Reading list	*1.Peter Debbs. Product Design and Modeling[M], China Machine Press, 2022* *2.Miao Yuhong. Product Design and Development[M] . Publishing House of Electronics Industry.2022.* *3.JIANG Bin. CMF Design of Creative Products[M] .Publishing House of Electronic Industry.2020.* *4.Yan Jinnan, Zhu Xiaobin, You what. The Complete Book of Smart Home Design[M] .Jiangsu Phoenix Science and Technology Press.2022.*

Module designation	*Modern Furniture Design*
Semester(s) in which the module is taught	*5*
Person responsible for the module	*Hui Kang*
Language	*Chinese*

Relation to curriculum	*Elective* *This course will teach the function and size design of furniture, the application of ergonomics in furniture design, the common materials used in furniture production, the cost accounting of furniture, the structure and production process of furniture, etc., so that students can exercise their ability of analysis and design in the systematic, integrated and market-oriented design process of furniture design. Through the study of this course, students will be able to exercise the circular significance of furniture design in the market sales cycle, analyze the market, locate the market, analyze the use scenario, and consider the overall consideration of furniture design to the user experience, so that the products can better serve consumers. Lay the foundation for students to complete their graduation projects and internships.*
Teaching methods	*lecture, lesson, lab works, project, seminar*
Workload (incl. contact hours, self-study hours)	*Contact hours:32 including lecture, exercise.Private study including examination preparation, specified in hours:58*
Credit points	*3 ECTS CP*
Required and recommended prerequisites for joining the module	*N/A*
Module objectives/intended learning outcomes	*Knowledge: familiarity with information, theory and/or subject knowledge* *Skills: Through this course, cultivate students' ability to combine Chinese design culture with modern furniture design, be good at communication and cooperation in design, be eager to learn, independent in personality, confident and resolute, and be willing to take on responsibilities, becoming new-generation design talents with broad international vision.* *Competences: By systematically applying the theoretical knowledge of modern furniture design, combining it with practical furniture design topics for specific modern furniture design practice, cultivating students' comprehensive professional abilities, mastering the systematic theory, methods, processes,*

	and key technical points of modern furniture design, and becoming practical design talents with independent innovative capabilities in modern furniture design.
Content	*Chapter 1 Furniture Design and Marketing* *This chapter introduces the furniture industry and the development and future trends of Chinese furniture through a teacher's general introduction, focusing on guiding students to understand the expression and process of furniture design, the relationship between furniture design marketing and design, and combining classroom discussions and example analysis to convey the knowledge content of this chapter.* *Chapter 2: Furniture Function and Dimensional Design* *Introduce knowledge of furniture design, human body dimensions, and furniture dimensional design, combining teacher explanation and student self-study. Select corresponding actual design projects for practice, focusing on design investigation, and complete the overall learning and mastery of the knowledge content in this chapter.* *Chapter 3 Common Materials Used in Furniture Making* *Introduction to the types of common materials used in furniture making.* *Chapter 4: Product Cost Accounting* *Introduction to standard cost in furniture production, its uses, calculation of quotations, and actual cost accounting and analysis.* *Chapter 5: Wood Furniture Structure and Production Technology* *Introduce the role of design symbols, product semantics and design thinking, and methods of product semantics communication, etc. Combine teacher explanation and student self-study, and deepen students' understanding of the knowledge content of this chapter through communication and discussion between teachers and students in actual design project practice.*

	Chapter 6: Structure and Production Technology of Panel Furniture *Introduction to the overview of the structure and production technology of panel furniture, as well as the structure and production technology of panel components.* *Chapter 7: Structure and Production Technology of Cabinet Furniture* *Introduction to the overview, structure, and production technology of cabinet furniture.* *Chapter 8 Structure and Production Process of Tabletop Furniture* *An overview of the structure and production process of table and desk furniture, as well as the structure and production process of components of table and desk furniture.* *Chapter 9 Structure and Production Process of Soft Furniture* *Introduction to the overview of the structure and production process of soft furniture, as well as the structure and production process of soft components.* *Chapter 10 Structural Design of Metal Furniture* *Introduction to the structure and production process of metal furniture, as well as the structure and production process of metal components.* *Chapter 11 Structure Design of Bamboo and Rattan Furniture* *An introduction to the structure and production process of bamboo and rattan furniture, as well as the structure and production process of bamboo and rattan components.*
Examination forms	*oral presentation, essay, design project*
Study and examination requirements	*60%Final exams, 40%attendance.*
Reading list	*1. Fang Hai. 15 Lectures on Modern Furniture Design. Guangxi Normal University Press. 2024* *2. (English) Stuart Lawson. Furniture Design: The Secrets of World Designers' Furniture. Electronic Industry Press. 2015*

	3. Tadao Katsuta. History of Danish Furniture Design. Machinery Industry Press. 2023

Module designation	*Home Exhibition Design* *(The course description is not available in the school education system, because it is newly added and will be available by 2026 spring semester).*
Semester(s) in which the module is taught	*6*
Person responsible for the module	*N/A*
Language	*Chinses*
Relation to curriculum	*Elective*
Teaching methods	*N/A*
Workload (incl. contact hours, self-study hours)	*Contact hours:32 including lecture, exercise.Private study including examination preparation, specified in hours: 58*
Credit points	*3 ECTS CP*
Required and recommended prerequisites for joining the module	*N/A*
Module objectives/intended learning outcomes	*N/A*
Content	*N/A*
Examination forms	*N/A*
Study and examination requirements	*N/A*
Reading list	*N/A*

Module designation	*Interior Aesthetic Design* *(The course description is not available in the school education system, because it is newly added and will be available by 2026 spring semester).*
Semester(s) in which the module is taught	*6*

Person responsible for the module	*N/A*
Language	*Chinses*
Relation to curriculum	*Elective*
Teaching methods	*N/A*
Workload (incl. contact hours, self-study hours)	*Contact hours:32 including lecture, exercise. Private study including examination preparation, specified in hours: 58*
Credit points	*3 ECTS CP*
Required and recommended prerequisites for joining the module	*N/A*
Module objectives/intended learning outcomes	*N/A*
Content	*N/A*
Examination forms	*N/A*
Study and examination requirements	*N/A*
Reading list	*N/A*

Module designation	*Intelligent Sanitation Design* *(The course description is not available in the school education system, because it is newly added and will be available by 2026 spring semester).*
Semester(s) in which the module is taught	*6*
Person responsible for the module	*N/A*
Language	*Chinses*
Relation to curriculum	*Elective*
Teaching methods	*N/A*

Workload (incl. contact hours, self-study hours)	*Contact hours:32 including lecture, exercise. Private study including examination preparation, specified in hours: 58*
Credit points	*3 ECTS CP*
Required and recommended prerequisites for joining the module	*N/A*
Module objectives/intended learning outcomes	*N/A*
Content	*N/A*
Examination forms	*N/A*
Study and examination requirements	*N/A*
Reading list	*N/A*

Module designation	*Professional English* *(The course description is not available in the school education system, because it is newly added and will be available by 2026 spring semester).*
Semester(s) in which the module is taught	*6*
Person responsible for the module	*N/A*
Language	*Chinses*
Relation to curriculum	*Elective*
Teaching methods	*N/A*
Workload (incl. contact hours, self-study hours)	*Contact hours:16 including lecture, exercise.Private study including examination preparation, specified in hours: 44*
Credit points	*2 ECTS CP*
Required and recommended prerequisites for joining the module	*N/A*

Module objectives/intended learning outcomes	*N/A*
Content	*N/A*
Examination forms	*N/A*
Study and examination requirements	*N/A*
Reading list	*N/A*

Module designation	*Home Service Design* *(The course description is not available in the school education system, because it is newly added and will be available by 2026 spring semester).*
Semester(s) in which the module is taught	*6*
Person responsible for the module	*N/A*
Language	*Chinses*
Relation to curriculum	*Elective*
Teaching methods	*N/A*
Workload (incl. contact hours, self-study hours)	*Contact hours:32 including lecture, exercise.Private study including examination preparation, specified in hours: 58*
Credit points	*3 ECTS CP*
Required and recommended prerequisites for joining the module	*N/A*
Module objectives/intended learning outcomes	*N/A*
Content	*N/A*
Examination forms	*N/A*
Study and examination requirements	*N/A*
Reading list	*N/A*

Module designation	*Decoration Budgetary Estimate* *(The course description is not available in the school education system, because it is newly added and will be available by 2026 spring semester).*
Semester(s) in which the module is taught	*6*
Person responsible for the module	*N/A*
Language	*Chinses*
Relation to curriculum	*Elective*
Teaching methods	*N/A*
Workload (incl. contact hours, self-study hours)	*Contact hours:32 including lecture, exercise.Private study including examination preparation, specified in hours: 58*
Credit points	*3 ECTS CP*
Required and recommended prerequisites for joining the module	*N/A*
Module objectives/intended learning outcomes	*N/A*
Content	*N/A*
Examination forms	*N/A*
Study and examination requirements	*N/A*
Reading list	*N/A*

Module designation	*Home Design Management* *(The course description is not available in the school education system, because it is newly added and will be available by 2026 spring semester).*
Semester(s) in which the module is taught	*6*
Person responsible for the module	*N/A*

Language	*Chinses*
Relation to curriculum	*Elective*
Teaching methods	*N/A*
Workload (incl. contact hours, self-study hours)	*Contact hours:32 including lecture, exercise.Private study including examination preparation, specified in hours: 58*
Credit points	*3 ECTS CP*
Required and recommended prerequisites for joining the module	*N/A*
Module objectives/intended learning outcomes	*N/A*
Content	*N/A*
Examination forms	*N/A*
Study and examination requirements	*N/A*
Reading list	*N/A*

Module designation	*Public Optional Courses* *(The course description is not available in the school education system, because it is newly added and will be available by 2026 spring semester).*
Semester(s) in which the module is taught	*6*
Person responsible for the module	*N/A*
Language	*Chinses*
Relation to curriculum	*Elective*
Teaching methods	*N/A*
Workload (incl. contact hours, self-study hours)	*Contact hours:64 including lecture, exercise.Private study including examination preparation, specified in hours: 56*
Credit points	*4 ECTS CP*

Required and recommended prerequisites for joining the module	*N/A*
Module objectives/intended learning outcomes	*N/A*
Content	*N/A*
Examination forms	*N/A*
Study and examination requirements	*N/A*
Reading list	*N/A*

Module designation	*Art Aesthetic* *(The course description is not available in the school education system, because it is newly added and will be available by 2026 spring semester).*
Semester(s) in which the module is taught	*6*
Person responsible for the module	*N/A*
Language	*Chinses*
Relation to curriculum	*Elective*
Teaching methods	*N/A*
Workload (incl. contact hours, self-study hours)	*Contact hours:32 including lecture, exercise.Private study including examination preparation, specified in hours: 28*
Credit points	*2 ECTS CP*
Required and recommended prerequisites for joining the module	*N/A*
Module objectives/intended learning outcomes	*N/A*
Content	*N/A*
Examination forms	*N/A*

Study and examination requirements	*N/A*
Reading list	*N/A*

Module designation	*Innovation and Entrepreneurship Course* *(The course description is not available in the school education system, because it is newly added and will be available by 2026 spring semester).*
Semester(s) in which the module is taught	*6*
Person responsible for the module	*N/A*
Language	*Chinses*
Relation to curriculum	*Elective*
Teaching methods	*N/A*
Workload (incl. contact hours, self-study hours)	*Contact hours:16including lecture, exercise.Private study including examination preparation, specified in hours: 14*
Credit points	*1 ECTS CP*
Required and recommended prerequisites for joining the module	*N/A*
Module objectives/intended learning outcomes	*N/A*
Content	*N/A*
Examination forms	*N/A*
Study and examination requirements	*N/A*
Reading list	*N/A*