

课程中文名称 教学大纲

English Name fo subject

Subject Syllabus

一、课程信息 Subject Information

课程编号: Subject ID	3100112002	开课学期: Semester	1
课程分类: Category	公共基础 GF	所属课群: Section	专业基础 MF
课程学分: Credit Points	2	总学时/周: Total Hours/Weeks	32
理论学时: LECT. Hours	26	实验学时: EXP. Hours	6
PBL 学时: PBL Hours	0	实践学时/周: PRAC. Hours/Weeks	0
开课学院: College	东北大学 悉尼智能科技学院	适用专业: Stream	通信工程 CE
课程属性: Pattern	必修 Compulsory	课程模式: Mode	互认 EQV
中方课程协调人: NEU Coordinator	辛凤鸣 XIN Fengming	成绩记载方式: Result Type	百分制 Marks
先修课程: Requisites	高等数学建模 Mathematical Modelling		
英文参考教材: EN Textbooks	ALLAN R. HAMBLEY , Electrical Engineering Principles and Applications, Seventh Edition, Publishing House of Electronics Industry, 2018		
中文参考教材: CN Textbooks	LLAN R. HAMBLEY, 电工学原理与应用(第五版)(中文版), 电子工业出版社, 2012		
教学资源: Resources	邱关源, 《电路》, 高等教育出版社, 第五版		
课程负责人(撰写人): Subject Director	辛凤鸣 XIN Fengming	提交日期: Submitted Date	单击或点击此处输入日期。
任课教师(含负责人): Taught by	辛凤鸣 邱新芸 李梅梅 XIN Fengming, QIU Xinyun, LI Meimei		
审核人: Checked by	韩鹏	批准人: Approved by	史闻博
		批准日期: Approved Date	单击或点击此处输入日期。

二、教学目标 Subject Learning Objectives (SLOs)

注：毕业要求及指标点可参照悉尼学院本科生培养方案，可根据实际情况增减行数

Note: GA and index can be referred from undergraduate program in SSTC website. Please add/reduce lines based on subject.

整体目标: Overall Objective	学生应了解电气工程的应用领域。具有一定的电气工程基础知识，能够分析、设计和解决一些实际电气工程的思维和能力。 Students should understand the applied field of electrical and electronic engineering, master the basic knowledge of electrical and electronic engineering, be able to analyze, design and solve some problem of thinking and ability.	
(1) 专业目标: Professional Ability	1-1	掌握基本的电气概念 Master basic electrical concepts
	1-2	将电路理论应用于基本的直流和交流电路的分析和设计 Apply circuit theories to the analysis and design of basic DC and AC electrical circuits.
	1-3	认识电子系统的基本原理, 并能够解决简单的子电路设计问题。培养初步的工程思维和创新的能力 Recognise fundamental principles of electronic systems and be able solve simple sub-system design problems. Cultivate preliminary engineering thinking and innovation ability
	1-4	使用基本的实验室测试设备设计、搭建、测试基本电路, 并对基本电路进行故障排除 Design, construct, test and troubleshoot basic circuits using basic laboratory test equipment
(2) 德育目标: Essential Quality	2-1	具有良好的团队协作意识和能力、较强的表达能力和人际交往能力 A strong sense and capability of teamwork, strong expression and interpersonal skills.
	2-2	具有良好的跨文化、跨领域沟通能力, 能够在本专业相关领域进行有效的技术沟通和交流 Good cross-cultural and cross-field communication skills, able to carry out effective technical communication and exchange in the relevant field of the major.
课程教学目标与毕业要求的对应关系 Matrix of GA & SLOs		
毕业要求 GA	指标点 GA Index	教学目标 SLOs
1、工程知识：能够将数学、自然科学、工程基础和专业 知识用于解决复杂工程问题。	指标点 1-1：掌握数学、自然科学、工程基础和专业 知识，并使用其建立正确的数学、物理学等模型以解释复杂工程问题	1-1,1-2,1-3
3、设计/开发解决方案：能够设计针对复杂工程问题的 解决方案，设计满足特定需求的系统、单元或流程，并能够在设计环节中体现创新	指标点 3-1：能够设计针对本专业相关复杂工程问题的 解决方案，能够设计和开发实现特定功能、满足特定需求的信	1-1,1-2,1-3
		1-1,1-2,1-3

意识, 考虑社会、健康、安全、法律、文化以及环境等因素。	息传输、信号处理或网络通信系统	
4、研究: 能够基于科学原理并采用科学方法对复杂工程问题进行研究, 包括设计实验、分析与解释数据、并通过信息综合得到合理有效的结论。	指标点 4-1: 能够基于科学原理并采用科学方法, 在本专业相关理论指导下对复杂工程问题设计实验进行研究	1-4
	指标点 4-2: 能够结合本专业知识对实验数据进行分析与解释, 设计并优化实验方案, 并通过信息综合得到合理有效的结论;	1-4
5、使用现代工具: 能够针对复杂工程问题, 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, 包括对复杂工程问题的预测与模拟, 并能够理解其局限性	指标点 5-2: 熟悉解决本专业相关复杂工程问题所需的技术和资源, 能够运用现代信息技术进行文献检索和资料查询, 获取专业解决方案;	1-2,1-3,1-4
		1-2,1-3,1-4
9、个人和团队: 能够在多学科背景下的团队中承担个体、团队成员以及负责人的角色。	指标点 9-1: 能够认识团队协作的重要性, 具有强烈的团队协作意识和能力、卓越的组织管理能力、较强的表达能力和人际交往能力;	2-1,2-2
		2-1,2-2
10、沟通: 能够就本专业复杂工程问题与业界同行及社会公众进行有效沟通和交流, 包括撰写报告和设计文稿、陈述发言、清晰表达或回应指令。具备一定的国际视野, 能够在跨文化背景下进行沟通和交流。	指标点 10-2: 熟练掌握英语, 能够在本专业相关领域进行有效的技术沟通和交流。	2-2

三、教学内容 Content (Topics)

注: 以中英文填写, 各部分内容的表格可根据实际知识单元数量进行复制、扩展或缩减

Note: Filled in both CN and EN, extend or reduce based on the actual numbers of knowledge unit

(1) 理论教学 Lecture

知识单元序号: Knowledge Unit No.	1	支撑教学目标: SLOs Supported	1-1
知识单元名称 Unit Title	电路模型和电路定律 Circuit models and circuit laws		
知识点: Knowledge Delivery	电路和电路模型, 电流和电压的参考方向, 电功率和能量 Real circuit and circuit model, reference direction, power and energy		

	电路元件：电阻元件，电压源和电流源 Circuit elements: resistance elements, voltage sources and current sources	
	基尔霍夫定律 Kirchhoff's law	
学习目标: Learning Objectives	了解: Recognize	电路和电路模型 Real circuit and circuit model
	理解: Understand	功率守恒 Power conservation
	掌握: Master	电流和电压的参考方向、元件的特性及电压电流关系、基尔霍夫定律 The reference direction of current and voltage, the characteristics of the elements and the relationship between voltage and current, Kirchhoff's law
德育目标 Moral Objectives	具有良好的团队协作意识和能力、较强的表达能力和人际交往能力 A strong sense and capability of teamwork, strong expression and interpersonal skills. 具有良好的跨文化、跨领域沟通能力，能够在本专业相关领域进行有效的技术沟通和交流 Good cross-cultural and cross-field communication skills, able to carry out effective technical communication and exchange in the relevant field of the major.	
重点: Key Points	电压和电流的参考方向；功率的计算；基尔霍夫的定律 The reference direction of voltage and current; Calculation of power; Kirchhoff's law	
难点: Focal points	功率的计算；基尔霍夫定律的应用 Calculation of power; Application of Kirchhoff's law	

知识单元序号: Knowledge Unit No.	2	支撑教学目标: SLOs Supported	1-1,
知识单元名称 Unit Title	电阻电路的等效变换 The equivalent circuit of a resistance circuit		
知识点: Knowledge Delivery	电路的等效变换，电阻的串联和并联 Equivalent transformation of circuits, resistors in series/parallel		
	电阻的 Y 形连接和 Δ 形连接的等效变换 The equivalent circuit of the resistance Y connection and Δ connection		
	电压源电流源的串联和并联，实际电源的两种模型及其等效变换 Voltage source and current source in series/parallel, two models of actual source supply and their equivalent transformation		
	输入电阻 Input resistance		
学习目标:	了解:	电路等效变换的概念，基本掌握电阻 Y 形联结与 Δ	

Learning Objectives	Recognize	形联结的等效变换 The concept of circuit equivalent, The equivalent circuit of the resistance Y connection and Δ connection.
	理解: Understand	电阻的串并联 resistors in series/parallel
	掌握: Master	实际电源的两种模型及其等效变换 two models of actual source supply and their equivalent circuits
德育目标 Moral Objectives	<p>具有良好的团队协作意识和能力、较强的表达能力和人际交往能力</p> <p>A strong sense and capability of teamwork, strong expression and interpersonal skills.</p> <p>具有良好的跨文化、跨领域沟通能力，能够在本专业相关领域进行有效的技术沟通和交流</p> <p>Good cross-cultural and cross-field communication skills, able to carry out effective technical communication and exchange in the relevant field of the major.</p>	
重点: Key Points	<p>电路的等效变换；电阻网络的等效变换；电源的串并联；实际电源的两种模型及等效变换</p> <p>Equivalent transformation of circuits; Equivalent circuit of resistance network; Equivalent circuit of voltage and current division; the models of actual source supply and their equivalent circuits</p>	
难点: Focal points	<p>电阻的 Y 形连接和 Δ 形连接的等效变换；一端口电路输入电阻的计算</p> <p>The equivalent circuit of the resistance of Y type connection and Δ type connection; Calculation of input resistance of a port circuit</p>	

知识单元序号: Knowledge Unit No.	3	支撑教学目标: SLOs Supported	1-1,1-3
知识单元名称 Unit Title	电阻电路的一般分析 General analysis of resistance circuits		
知识点: Knowledge Delivery	KCL 和 KVL 独立方程数 The number of independent equations for KCL and KVL		
	开路/短路 Short/open circuit		
	结点电压分析 Node-voltage analysis		
	网孔电流分析 Mesh-current analysis		
学习目标: Learning Objectives	了解: Recognize	开路/短路 Short/optn circuit	
	理解: Understand	结点电压；网孔电流 Node voltage; mesh-current	

	掌握: Master	结点电压分析; 网孔电流分析 Node-voltage analysis; Mesh-current analysis
德育目标 Moral Objectives	<p>具有良好的团队协作意识和能力、较强的表达能力和人际交往能力</p> <p>A strong sense and capability of teamwork, strong expression and interpersonal skills.</p> <p>具有良好的跨文化、跨领域沟通能力, 能够在本专业相关领域进行有效的技术沟通和交流</p> <p>Good cross-cultural and cross-field communication skills, able to carry out effective technical communication and exchange in the relevant field of the major.</p>	
重点: Key Points	结点电压分析; 网孔电流分析 Node-voltage analysis; Mesh-current analysis	
难点: Focal points	结点电压分析; 网孔电流分析 Node-voltage analysis; Mesh-current analysis	

知识单元序号: Knowledge Unit No.	4	支撑教学目标: SLOs Supported	1-1,1-3
知识单元名称 Unit Title	电路定理 Basic circuit theories		
知识点: Knowledge Delivery	叠加定理和替代定理 Superposition principle and substitution principle		
	戴维宁定理和诺顿定理 Thevenin theorem and Norton theorem		
	最大功率传输定理 Maximum power transfer for DC circuits		
学习目标: Learning Objectives	掌握: Master	叠加定理和替代定理 Superposition principle and substitution principle 戴维宁定理和诺顿定理 Thevenin theorem and Norton theorem 最大功率传输定理 Maximum power transfer for DC circuits	
德育目标 Moral Objectives	<p>具有良好的团队协作意识和能力、较强的表达能力和人际交往能力</p> <p>A strong sense and capability of teamwork, strong expression and interpersonal skills.</p> <p>具有良好的跨文化、跨领域沟通能力, 能够在本专业相关领域进行有效的技术沟通和交流</p> <p>Good cross-cultural and cross-field communication skills, able to carry out effective technical communication and exchange in the relevant field of the major.</p>		
重点: Key Points	Both all basic circuit theories		

难点: Focal points	Both all basic circuit theories		
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知识单元序号: Knowledge Unit No.	5	支撑教学目标: SLOs Supported	1-1,1-2,1-3
知识单元名称 Unit Title	能量存储元件 Energy storage elements		
知识点: Knowledge Delivery	电容和电感 Capacitors and inductors		
	零状态响应 Zero state response		
	零输入响应 Zero input response		
	全响应 Full response		
	阶跃响应和冲激响应 Step response and impulse response		
学习目标: Learning Objectives	掌握: Master	电容和电感的 VCR The VCR of capacitors and inductors	
		动态电路方程的建立 The establishment method of dynamic circuit equations	
		一阶 RC 电路的瞬态响应 Transients in first order RC circuits	
德育目标 Moral Objectives	<p>具有良好的团队协作意识和能力、较强的表达能力和人际交往能力</p> <p>A strong sense and capability of teamwork, strong expression and interpersonal skills.</p> <p>具有良好的跨文化、跨领域沟通能力,能够在本专业相关领域进行有效的技术沟通和交流</p> <p>Good cross-cultural and cross-field communication skills, able to carry out effective technical communication and exchange in the relevant field of the major.</p>		
重点: Key Points	储能元件特性 Characteristics of energy storage elements		
	动态电路方程及其初始条件 Equations of dynamic circuits and their initial conditions		
	一阶 RC 电路的瞬态响应 Transients in first order RC circuits		
难点: Focal points	对一阶电路的理解和应用 Understanding and application of first order circuits		

知识单元序号: Knowledge Unit No.	6	支撑教学目标: SLOs Supported	1-1,1-3
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知识单元名称 Unit Title	相量法基础和复阻抗 Basic complex numbers, phasors and complex impedances	
知识点: Knowledge Delivery	复数, 相量, 电路定律的相量形式 Complex, phasor and the phasor form of the circuit law	
	阻抗和导纳 Impedance and admittance	
学习目标: Learning Objectives	掌握: Master	正弦量的三要素 Three elements of sinusoidal voltages and currents
		电路定律的相量形式 the phasor form of the circuit law
		阻抗和导纳 Impedance and admittance
德育目标 Moral Objectives	<p>具有良好的团队协作意识和能力、较强的表达能力和人际交往能力</p> <p>A strong sense and capability of teamwork, strong expression and interpersonal skills.</p> <p>具有良好的跨文化、跨领域沟通能力, 能够在本专业相关领域进行有效的技术沟通和交流</p> <p>Good cross-cultural and cross-field communication skills, able to carry out effective technical communication and exchange in the relevant field of the major.</p>	
重点: Key Points	电路定律的相量形式, 阻抗和导纳 the phasor form of the circuit law, impedance and admittance	
难点: Focal points		

知识单元序号: Knowledge Unit No.	7	支撑教学目标: SLOs Supported	1-1,1-2,1-3
知识单元名称 Unit Title	正弦稳态电路的相量法分析 Circuit analysis with phasors and complex impedance		
	稳态交流电路的结点电压和网孔电流法 Steady-state AC node-voltage and mesh-current analysis		
	等效电路和最大功率传输 Equivalent circuits and maximum average power transfer for AC sources and complex load impedances		
学习目标: Learning Objectives	掌握: Master	用相量法分析电路 Analyze the circuit with phasor method	
		等效电路 Equivalent circuits for AC sources and complex load impedances	
		最大功率传输 maximum average power transfer for AC sources and complex load impedances	

德育目标 Moral Objectives	<p>具有良好的团队协作意识和能力、较强的表达能力和人际交往能力</p> <p>A strong sense and capability of teamwork, strong expression and interpersonal skills.</p> <p>具有良好的跨文化、跨领域沟通能力，能够在本专业相关领域进行有效的技术沟通和交流</p> <p>Good cross-cultural and cross-field communication skills, able to carry out effective technical communication and exchange in the relevant field of the major.</p>
重点: Key Points	<p>正弦电路的相量分析</p> <p>Analysis of sinusoidal circuit with phasors method</p>
难点: Focal points	<p>正弦稳态电路分析，正弦稳态电路的功率，最大功率传输</p> <p>Sinusoidal steady state circuit analysis with phasors and complex impedance and its power, maximum average power transfer for AC sources and complex load impedances</p>

知识单元序号: Knowledge Unit No.	8	支撑教学目标: SLOs Supported	1-1,1-3
知识单元名称 Unit Title	理想变压器，二极管和整流电路 Ideal transformers, diodes and rectifier circuits		
知识点: Knowledge Delivery	磁感和理想变压器 Magnetic induction and ideal transformers		
	二极管 Diodes		
	整流电路 Rectifier circuits		
学习目标: Learning Objectives	掌握: Master	耦合电感的伏安关系，含有耦合电感电路的分析 The volt-ampere relation of coupled inductance, including the analysis of coupled inductance circuits	
		变压器原理 Principle of transformer	
		耦合电感的功率 The power of a coupled inductor	
德育目标 Moral Objectives	<p>具有良好的团队协作意识和能力、较强的表达能力和人际交往能力</p> <p>A strong sense and capability of teamwork, strong expression and interpersonal skills.</p> <p>具有良好的跨文化、跨领域沟通能力，能够在本专业相关领域进行有效的技术沟通和交流</p> <p>Good cross-cultural and cross-field communication skills, able to carry out effective technical communication and exchange in the relevant field of the major.</p>		

重点: Key Points	互感, 变压器原理 Mutual inductance, Principle of transformer
难点: Focal points	耦合电感的功率 The power of a coupled inductor

知识单元序号: Knowledge Unit No.	9	支撑教学目标: SLOs Supported	1-1,1-2,1-3
知识单元名称 Unit Title	传递函数和滤波器 Transfer functions and filters		
知识点: Knowledge Delivery	传递函数 Transfer functions		
	一阶 RC 低通滤波器 First-order RC lowpass filters		
	波特图 Bode plots		
	一阶 RC 高通滤波器 First-order RC high-pass filter		
学习目标: Learning Objectives	掌握: Master	传递函数, 波特图 Transfer functions, Bode plots	
		一阶 RC 低通滤波器 First-order RC lowpass filters	
		一阶 RC 高通滤波器 First-order RC high-pass filters	
德育目标 Moral Objectives	<p>具有良好的团队协作意识和能力、较强的表达能力和人际交往能力</p> <p>A strong sense and capability of teamwork, strong expression and interpersonal skills.</p> <p>具有良好的跨文化、跨领域沟通能力, 能够在本专业相关领域进行有效的技术沟通和交流</p> <p>Good cross-cultural and cross-field communication skills, able to carry out effective technical communication and exchange in the relevant field of the major.</p>		
重点: Key Points	传递函数和波特图 Transfer functions and Bode plots		
难点: Focal points	波特图 Bode plots		

(2) 实验教学 Experiments

注: 可根据实际情况增减行数。实验类型可分为验证性、设计性、综合性, 实验性质可分为选做、必做。

Note: Please add/reduce lines based on subject. The Type contains Verify, Design, and Comprehensive, while the Pattern contains Required and Elective

序号 No.	实验项目名称 Experiment Topic	学时 Hours	每组人数 MPG*	实验类型 Type	实验性质 Pattern
1	基尔霍夫定律的验证 Experimental verification of Kirchhoff's law	2	1	验证性 Verify	必做 Elec
2	戴维宁定理和诺顿定理的验证 Experimental verification of Thevenin's theorem and Norton theorem	2	1	验证性 Verify	必做 Elec
3	一阶 RC 电路的响应测试 First-order RC circuit response test	2	1	验证性 Verify	必做 Elec
总计 Total		6			

*MPG: Members per group

实验项目序号: Experiment No.	1	支撑教学目标: SLOs Supported	1-3,1-4
每组成员: Members per Group	1	指导教师: Tutor	李梅梅
实验名称: Experiment Title	基尔霍夫定律的验证 Experimental verification of Kirchhoff's law		
实验内容: Content	电流电压参考方向的设定 Set the reference direction of voltage and current		
	电压电流测量方法 Master method of measuring voltage and current		
	验证基尔霍夫定律 Verify Kirchhoff's law		
学习目标: Learning Objectives	理解电压和电流的参考方向, 掌握电压和电流的测量方法, 验证基尔霍夫定律 Understand the reference direction of voltage and current, master the measurement method of voltage and current, and verify Kirchhoff's law		
教学要求: Requirements	每个学生独立完成实验, 撰写实验报告 Each student completes the experiment independently, and writes the experiment report		
实验场地: Location	综合楼 1111; comprehensive building 1111		
实验软硬件设备: Software/Hardware	MULTISIM 仿真软件 MULTISIM simulation software		

实验项目序号: Experiment No.	2	支撑教学目标: SLOs Supported	1-3,1-4
每组成员: Members per Group	1	指导教师: Tutor	李梅梅

实验名称: Experiment Title	戴维宁定理和诺顿定理的验证 Experimental verification of Thevenin theorem and Norton theorem
实验内容: Content	验证戴维宁定理 Verify Thevenin's theorem
	验证诺顿定理 Verify Norton theorem
学习目标: Learning Objectives	理解和验证戴维宁等效电路和诺顿等效电路 Understand and verify the Thevenin and Norton equivalent circuits
教学要求: Requirements	每个学生独立完成实验, 撰写实验报告 Each student completes the experiment independently, and writes the experiment report
实验场地: Location	综合楼 1111; comprehensive building 1111
实验软硬件设备: Software/Hardware	MULTISIM 仿真软件 MULTISIM simulation software

实验项目序号: Experiment No.	3	支撑教学目标: SLOs Supported	1-3,1-4
每组成员: Members per Group	1	指导教师: Tutor	李梅梅
实验名称: Experiment Title	一阶 RC 电路响应测试 First-order RC circuit response test		
实验内容: Content	观察一阶电路的过渡过程 Observe the transition process of the first-order RC circuit		
学习目标: Learning Objectives	搭建一阶 RC 电路, 观察一阶 RC 电路的过渡过程 Built first-order RC circuit, and Observe its transition process		
教学要求: Requirements	每个学生独立完成实验, 撰写实验报告 Each student completes the experiment independently, and writes the experiment report		
实验场地: Location	综合楼 1111; comprehensive building 1111		
实验软硬件设备: Software/Hardware	MULTISIM 仿真软件 MULTISIM simulation software		

四、教学安排 Teaching Schedule

注: 可根据实际情况增减行数

Note: Please add/reduce lines based on subject.

教学内容 Teaching Content	学时(周) Hour(Week)			
	理论	实验	课外实践	实践

	LECT.	EXP.	PBL	PRAC.
综述、电路的基本概念 Basic concepts of simple circuits	4			
基尔霍夫定律的验证 Experimental verification of Kirchhoff's law		2		
基本电路理论, 结点电压法, 网孔电流法 Basic circuit theories, node-voltage and mesh-current analysis	2			
戴维宁和诺顿定理, 叠加定理, 最大功率传输 Thevenin theorem and Norton theorem, superposition theorem, maximum power transfer theorem	4			
戴维宁和诺顿定理的验证 Experimental verification of Thevenin theorem and Norton theorem		2		
储能元件 energy storage components	2			
一阶电路瞬态分析 Transient analysis of first order circuit	2			
一阶 RC 电路响应测试 First-order RC circuit response test		2		
复数, 相量和阻抗 Complex number, phasor, and impedance	2			
正弦稳态电路的相量法分析 Circuit analysis with phasors and complex impedance	4			
理想变压器, 二极管和整流电路 Idea transformers, diodes, and rectifier circuits	2			
传递函数和滤波器 Transfer functions and filters	4			
RLC 串联谐振电路的研究 Study on RLC resonance circuit				
总计 Total	26	6		

五、教学方法 Teaching Methodology

注: 可根据实际情况增减行数或修改内容

Note: Please add/reduce lines or revise content based on subject.

勾选 Check	教学方法与特色 Teaching Methodology & Characters
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<input checked="" type="checkbox"/>	多媒体教学：基于信息化设备的课堂教学 Multi-media-based lecturing
<input checked="" type="checkbox"/>	实践能力传授：理论与行业、实际案例相结合 Combining theory with industrial practical problems
<input checked="" type="checkbox"/>	课程思政建设：知识讲授与德育相结合 Knowledge delivery with ethic education
<input type="checkbox"/>	PBL 教学：问题驱动的分组学习与交流 Problem-based learning
<input type="checkbox"/>	其他:单击或点击此处输入文字。 Other:单击或点击此处输入文字。

六、成绩评定 Assessment

注：可根据实际情况增减行数或修改内容

Note: Please add/reduce lines or revise content based on subject.

考核环节: Assessment Content	平时 Behavior	环节负责人: Director	
给分形式: Result Type	百分制 Marks	课程总成绩比重(%): Percentage (%)	20
考核方式: Measures	满分 100 分，使用学习通记录学生平时的课堂表现，每次考勤计 10 分，缺勤不得分，缺勤五次及以上取消考试资格。每次作业计 10 分，抄袭、给他人抄袭或未交作业不得分。每次课堂正确回答问题计 5 分，每次课堂注意力不集中、影响课堂纪律等情况扣 5 分。最后总分不超过 100 分，不低于 0 分。		

考核环节: Assessment Content	实验 Experiment	环节负责人: Director	李梅梅
给分形式: Result Type	百分制 Marks	课程总成绩比重(%): Percentage (%)	20
考核方式: Measures	满分 100 分，实验成绩不及格（低于 60 分）不得参加期末考试。通过课堂表现及实验报告记录学生成绩，实验报告 50 分，课堂操作 50 分。抄袭、给他人抄袭或未交实验报告不得分，缺席一次或多次实验无实验成绩。最后总分不超过 100 分，不低于 0 分。		

考核环节: Assessment Content	期中 Mid-term	环节负责人: Director	辛凤鸣, 邱新芸
给分形式: Result Type	百分制 Marks	课程总成绩比重(%): Percentage (%)	30
考核方式: Measures	试卷满分 100 分，通过批阅期中考试试卷给出学生成绩，期中试卷成绩占最终考核成绩 30%。		

考核环节: Assessment Content	期末 Final	环节负责人: Director	邱新芸, 辛凤鸣
给分形式: Result Type	百分制 Marks	课程总成绩比重(%): Percentage (%)	30

Result Type		Percentage (%)	
考核方式: Measures	试卷满分 100 分, 通过批阅期末考试试卷给出学生成绩。期末试卷成绩占最终考核成绩 30%		

七、改进机制 Improvement Mechanism

注: 未尽事宜以教学团队以及学院教学指导委员会商定为准。

Note: Matters not covered in this file shall be determined by TAB of SSTC, NEU.

教学大纲改进机制 Subject Syllabus Improvement Mechanism			
考核周期(年): Check Period (YR)	4	修订周期(年): Revise Period (YR)	4
改进措施: Measures	课程负责人根据课程教学内容与人才培养目标组织课程团队讨论并修改教学大纲, 报分管教学工作副院长审核后由执行院长批准。 The subject coordinator shall be responsible for the syllabus discussion and improvement, and the revised version shall be submitted to deputy dean (teaching affairs) for reviewing then to executive dean for approval		
成绩评定改进机制 Assessment Improvement Mechanism			
考核周期(年): Check Period (YR)	1	修订周期(年): Revise Period (YR)	1
改进措施: Measures	课程负责人根据课程教学内容、课堂教学效果以及成绩分布, 对课程教学方法和成绩评定环节进行改进, 并同步优化评定办法。 The subject coordinator shall revise the syllabus based on the teaching content, effect and result distribution while optimize the assessment measures.		