上海建桥学院课程教学进度计划表

Teaching Schedule

1. 基本信息Basic Information

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| 课程名称  Course Title | 计算机系统与网络技术  Computer System and Network Technology | | | | |
| 课程代码  Course Code | 2140019 | 课程序号 |  | 课程学分/学时  Course Credits/ Hours | 3/48 |
| 授课教师  Professor | 朱曙锋  Shufeng Zhu | 教师工号(ID) | 11046 | 专/兼职  Full/Part Time | 专Full Time |
| 上课班级Class | 数媒技术（国教）B23-2 | 班级人数  Number of Students | 27 | 上课教室  Classroom | 计算机中心 326和315  Computer Room 326 and 315 |
| 答疑安排  Q&A Schedule | 星期三下午5-6节课13：00-14：00 on Wednesday | | | | |
| 课程号/课程网站 |  | | | | |
| 选用教材  Text Book | COMPUTER NETWORKING Top-down Approach, James F. Kurose，Keith W.Ross, PEARSON, Eighth Edition | | | | |
| 参考教材与资料  Bibliography | An Introduction to Computer Networks，Release 2.0.6，Peter L Dordal  计算机网络（第7版），谢希仁 | | | | |

二、课程教学进度Teaching progress

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| 周次  Week | 教学内容  Topics | 教学方式  Methods | 作业  Assignment |
| 1 | Chapter 1 Computer Networks and the Internet  第1章 计算机网络和因特网  What is the Internet? What are protocols? Network edge: hosts, access networks, and physical media. Network Core: Packet/Circuit Switching, Internet Architecture. Safety. Protocol layer, and service model  什么是因特网? 什么是协议? 网络边缘:主机、接入网络、物理介质。网络核心:分组/电路交换，互联网结构。安全。协议层、服务模型。 | Lecture and Discussion  授课与讨论 |  |
| 2 | Chapter 2 Application Layer  第2章 应用层  Principles of network applications, Web and HTTP, E-mail, The Domain Name System DNS, Video streaming and content distribution networks  网络应用原理, Web和HTTP, 电子邮件, DNS, 视频流和内容分发网络. | Lecture and Discussion  授课与讨论 | Homework 1  家庭作业 1 |
| 3 | 用Apache服务器软件搭建一个Web网站。  Setting a Web Site in the Apache | Lab |  |
| 5 | Chapter 3 Transport Layer  第3章 运输层  Transport-layer services, Connectionless transport: UDP, Principles of reliable data transfer. Connection-oriented transport: TCP  传输层服务, 无连接传输：UDP, 可靠数据传输的原则, 面向连接的传输：TCP | Lecture and Discussion  授课与讨论 | Homework 2  家庭作业 2 |
| 6 | Chapter 4 Network Layer  第四章 网络层：数据面  Network Layer Overview, How Routers Work, Internet Protocol.  网络层概述, 路由器工作原理, 互联网协议。 | Lecture and Discussion  授课与讨论 |  |
| 7 | Chapter 5 The Network Layer: Control Plane  第5章 网络层：控制面  Routing Algorithms, Intra-AS Routing in the Internet: OSPF, ICMP: The Internet Control Message Protocol  路由算法，互联网中的AS内部路由：OSPF，ICMP：互联网控制报文协议 | Lecture and Discussion  授课与讨论 | Homework 3  家庭作业 3 |
| 8-9 | 用Cisco Packet Tracer对路由器就行模拟配置。  Setting Routers in Cisco Packet Tracer | Lab |  |
| 10 | Chapter 6 Link Layer & LANs  第6章 链路层和局域网  Introduction to the Link Layer, Switched Local Area Networks, Data Center Networking  链路层概述, 交换局域网, 数据中心网络 | Lecture and Discussion  授课与讨论 | Homework 4  家庭作业 4 |
| 11-12 | 用Cisco Packet Tracer对交换机就行模拟配置。  Setting Switchers in Cisco Packet Tracer | Lab |  |
| 13 | Chapter 7 Wireless & Mobile Network  第7章 无线网络和移动网络  Overview of Wireless and mobile networks, WiFi:802.11 Wireless LAN, Cellular Internet Access, mobile IP  无线网路和移动网路概述，WiFi:802.11无线局域网，蜂窝互联网接入，移动通信IP | Lecture and Discussion  授课与讨论 | Homework 5  家庭作业 5 |
| 14 | Chapter 8 Security in Computer Networks  第8章 计算机网络中的安全  Network security, cryptography principles, message integrity and digital signature, network layer security, making wireless LAN secure, operational security  网络安全，密码学原理，报文完整性和数字签名，网络层安全性，使无线局域网安全，操作安全 | Lecture and Discussion  授课与讨论 |  |
| 15 | Students will present their project which they work on in the semester. The Presentation will include PPT, Recorded Video and Thesis with 1200 words.  学生将展示他们在学期中从事的项目。演讲将包括PPT，录制的视频和论文，1200字。 |  |  |
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三、评价方式以及在总评成绩中的比例 Assessment Index & Weightage

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| 总评构成（X）  Grading Computation | 评价方式  Assessment Index | 占比（%)  Weightage（%） |
| X1 | 期末考核：个人项目报告  Final assessment: personal project report | 50% |
| X2 | 过程考核：个人作业  Process Assessment: Individual Assignments | 20% |
| X3 | 过程考核：3个实验报告  Process assessment: 3 lab reports | 20% |
| X3 | 过程考核：课堂表现  Process Assessment: Classroom Participation | 10% |

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| 撰写人：朱曙锋  Writer:Shufeng Zhu | 系主任审核签名： 审核时间：2025年2月1日  Signature of Dean Review Date: 2/1/2025 |