

上海建桥学院课程教学进度计划表

Teaching Schedule

一、基本信息 Basic Information

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| 课程代码 Course Code | 2140019 | 课程名称 Course Title | 计算机系统与网络技术 Computer System and Network Technology |
| 课程学分 Course Credits | 3 | 总学时 Studying Hours | 48 |
| 授课教师 Professor | Shufeng Zhu | 教师邮箱 Email | shufeng_2000@sina.com |
| 上课班级 Class | 数媒体技术(双语)B22-3/B22-3 Bachelor in Digital Media Technology B22-3/B22-3 | 上课教室 Classroom | 计算机中心 228/318 Computer Room |
| 答疑时间 Q&A Schedule | 周一 5-6 节 Monday 5-6 | | |
| 主要教材 Textbook | COMPUTER NETWORKING Top-down Approach, James F. Kurose, Keith W.Ross, PEARSON, Eighth Edition | | |
| 参考资料 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

| 周次 Week/Times | 教学内容 Topics | 教学方式 Teaching Methods | 作业 Assignment |
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| 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 | |

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| 2 | <p>Chapter 2 Application Layer 第 2 章 应用层</p> <p>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.</p> | Lecture and Discussion 授课与讨论 | Homework 1 家庭作业 1 |
| 3 | <p>用 Apache 服务器软件搭建一个 Web 网站。 Setting a Web Site in the Apache</p> | Lab | |
| 5 | <p>Chapter 3 Transport Layer 第 3 章 运输层</p> <p>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</p> | Lecture and Discussion 授课与讨论 | Homework 2 家庭作业 2 |
| 6 | <p>Chapter 4 Network Layer 第四章 网络层: 数据面</p> <p>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。</p> | Lecture and Discussion 授课与讨论 | |
| 7 | <p>Chapter 5 The Network Layer: Control Plane 第 5 章 网络层: 控制面</p> <p>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</p> | Lecture and Discussion 授课与讨论 | Homework 3 家庭作业 3 |
| 8-9 | <p>用 Cisco Packet Tracer 对路由器就行模拟配置。 Setting Routers in Cisco Packet Tracer</p> | Lab | |
| 10 | <p>Chapter 6 Link Layer & LANs 第 6 章 链路层和局域网</p> <p>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</p> | Lecture and Discussion 授课与讨论 | Homework 4 家庭作业 4 |
| 11-12 | <p>用 Cisco Packet Tracer 对交换机就行模拟配置。 Setting Switchers in Cisco Packet Tracer</p> | Lab | |

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| 13 | <p>Chapter 7 Wireless & Mobile Network 第 7 章 无线网络和移动网络</p> <p>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</p> | Lecture and Discussion 授课与讨论 | Homework 5 家庭作业 5 |
| 14 | <p>Chapter 8 Security in Computer Networks 第 8 章 计算机网络中的安全</p> <p>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</p> | Lecture and Discussion 授课与讨论 | |
| 15 | <p>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。</p> | | |
| 16 | <p>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。</p> | | |

三、评价方式以及在总评成绩中的比例 Assessment Index & Weightage

| 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 | 10% |

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| | Process Assessment: Classroom Participation | |
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Signature of Dean: Rui Wang

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