

信息学院本科生计算机科学与技术专业-专业选修课分类图

分方向课程解读:

1. 由于学院提供的培养课程种类丰富，为了让同学们更好地量身定制自己的选课计划，特制定下表供大家参考。
2. 计算机科学与技术是一个大学科概念，下面还可以分为多个子方向（对应于表格的行）。同学们在进入高年级以后，可以根据自己的兴趣，选择某一/多个具体的子方向进行深入学习。
3. 在每一个子方向内，一般情况下应该优先修读本科生课程，再修读研究生课程。
4. 同学们可以结合自己的兴趣和基础，在修完专业必修课，拓展所修课程体系的广度（跨越子方向）或深度（在同一个方向内选择适量的研究生课来修读）。一般来讲，本科阶段的学习以追求广度为先。但是在保证广度的同时，也可以适当拓展课程深度，以更好地应对研究生阶段的专业学习或更深入地学习某一方面的知识。
5. 请注意：培养方案中只会区分专业必修课和专业选修课，本表格仅具有推荐和指导作用，并无任何强制选课关系。

Field of Interest	Courses
Software engineering	Software Engineering, Compilers, Database, Parallel Computing, Networking, Computer Architecture I, Computer Architecture II
Systems	Computer Architecture I, Computer Architecture II, Networking, Compilers, Parallel Computing, Database, Software Engineering
Networking	Networking, Wireless and Mobile Systems, Parallel Computing, Computer Architecture I, Software Engineering
Data science, Artificial Intelligence	Artificial Intelligence, Machine learning, Deep learning, Database, Computer vision, Introduction to Algorithmic Game Theory, Algorithm Design and Analysis
Graphics	Computer Graphics, Digital Image processing, Computer vision, Computer Animation and Physical Simulation, Deep learning
Security	Cryptography, networks, Software Engineering, Wireless and Mobile Systems, Introduction to Algorithmic Game Theory
Bioinformatics	Bioinformatics: Software Development and Applications, Software Development and Validation for Medical Cyber Physical Systems, Algorithm Design and Analysis, Database
Robotics	Mechatronics, SLAM, Computer vision, Artificial Intelligence, Machine learning, Deep learning, Parallel Computing
Theory	Theory of Computation, Algorithm Design and Analysis, Parallel Computing, Cryptography, Deep learning