

## 学生版课程大纲 / Course Syllabus for Students

学科名称 Course Name Statistics      任课教师 Instructor Qiang Song  
 周课时 Weekly Hours 5      授课地点 Classroom 3206  
 学生层次 Grade 12      班级 Class 10

教学目标 Teaching Objectives	The course is the second half part of an introduction to Probability and Statistics, which can be served as an AP Statistics course.
学习效果 Learning Outcomes	Students would understand the basic probability concepts and statistics topics including confidence interval, hypothesis test, chi-square test and simple linear regression model.
使用教材 Textbooks	<i>Introduction to Statistics &amp; Data Analysis, 3<sup>rd</sup> Edition</i> , by Roxy Peck, Chris Olsen, and Jay Devore.
评估方式 Assessment Strategies	10% Attendance, 10% Homework, 15% Participating in Class and 65% Final.
内容和时间安排 Topics & Timeline	第 1 周 Week 1 Review (normal distribution), Ch.8 The Sampling Distribution 第 2 周 Week 2 Ch.9 Confidence Interval for a Population Proportion & a Population Mean 第 3 周 Week 3 Hypothesis Test Procedures & Hypothesis Tests for a Population Proportion (Sec. 10.1, 10.2 10.3) 第 4 周 Week 4 Hypothesis Tests for Population Mean (Sec. 10.3 & 10.4), Type II Error (Sec. 10.5) 第 5 周 Week 5 The Difference Between Two Population Means Using Independent Samples & Paired Samples (Sec. 11.1 & 11.2) 第 6 周 Week 6 The Difference Between Two Population Proportions (Sec. 11.3) 第 7 周 Week 7 Chi-Square Test (Sec. 12.1) 第 8 周 Week 8 Testing Homogeneity and Independence (Sec. 12.2) 第 9 周 Week 9 Simple Linear Regression Model (Ch. 13) 第 10 周 Week 10 Review 第 11 -- 13 周 TBA
说明 Remarks	<ul style="list-style-type: none"> <li>• Outline of concepts and formulas can be found in class homepage <a href="http://mathsong.github.io/APstat">http://mathsong.github.io/APstat</a></li> <li>• We will review AP exam paper in problem session every week to prepare for the test in this May.</li> <li>• You are encouraged to search online supplementary learning resources, like <a href="https://www.khanacademy.org/math/probability">https://www.khanacademy.org/math/probability</a></li> </ul>