

## 课程大纲 COURSE SYLLABUS

1.	<b>课程代码/名称 Course Code/Title</b>	智能可穿戴技术 Smart Wearable Technology
2.	<b>课程性质 Compulsory/Elective</b>	选修 Elective
3.	<b>开课单位 Offering Dept.</b>	系统设计与智能制造 SDIM
4.	<b>课程学分/学时 Course Credit/Hours</b>	1 学分/ 16 学时
5.	<b>授课语言 Teaching Language</b>	中/英
6.	<b>授课教师 Instructor(s)</b>	白紫千 Bai Ziqian
7.	<b>开课学期 Semester</b>	春季学期 Spring
8.	<b>是否面向本科生开放 Open to undergraduates or not</b>	否
9.	<b>先修要求 Pre-requisites</b>	(如面向本科生开放, 请注明区分内容。 If the course is open to undergraduates, please indicate the difference.) 无 None
10.	<b>教学目标 Course Objectives</b>	<p>(如面向本科生开放, 请注明区分内容。 If the course is open to undergraduates, please indicate the difference.)</p> <p>This course aims to introduce the knowledge, know-how and trend of wearable technology. This course will guide the student to review the latest literatures, find the research gap in this field and discuss the possible solutions.</p> <p>本课程的目标是介绍可穿戴技术领域的知识、技术和趋势。本课程将引导学生学习该领域最新研究成果, 发现该领域的研究问题, 并讨论可能的解决方案。通过这门课的学习, 希望每个学生能够:</p> <ol style="list-style-type: none"> <li>1. 了解可穿戴系统设计的目标, 问题和结构</li> <li>2. 了解可穿戴系统的国际领先技术及成功应用案例</li> <li>3. 理解不同种类的可穿戴设备, 以及对应的智能材料和技术</li> <li>4. 发现可穿戴领域潜在的研究问题</li> </ol>
11.	<b>教学方法 Teaching Methods</b>	<p>(如面向本科生开放, 请注明区分内容。 If the course is open to undergraduates, please indicate the difference.)</p> <p>Lecture&amp; Discussion 理论及讨论</p>
12.	<b>教学内容 Course Contents</b>	(如面向本科生开放, 请注明区分内容。 If the course is open to undergraduates, please indicate the difference.)

<b>Section 1</b>	An Introduction to Smart Wearable Technology 智能可穿戴技术介绍
<b>Section 2</b>	Flexible Electronics and Textiles for Wearable Technologies 柔性电子及可穿戴纺织技术
<b>Section 3</b>	Wearable Systems for Monitoring of Physical and Physiological 可穿戴传感系统及人体生理信号监测
<b>Section 4</b>	Applications and Future trends of Wearable Technologies. 未来可穿戴技术应用及趋势
<b>13. 课程考核 Course Assessment</b>	
<p>( ①考核形式 Form of examination; ②. 分数构成 grading policy; ③ 如面向本科生开放, 请注明区分内容。 If the course is open to undergraduates, please indicate the difference. )</p> <p>①考核形式 Form of examination: 口头报告 Oral Examination &amp; 书面报告 Report; ②. 分数构成 grading policy: 口头报告 Oral Examination (40% ) &amp; 书面报告 Report (60%)</p>	
<b>14. 教材及其它参考资料 Textbook and Supplementary Readings</b>	
<ul style="list-style-type: none"> <li>• Edward Sazonov, Michael R. Neuman (editors), <u>Wearable Sensors: Fundamentals, Implementation and Applications</u>, 2014, Academic Press/Elsevier, ISBN 978-0124186620</li> <li>• <a href="#">Kate Hartman</a>, <u>Make: Wearable Electronics: Design, prototype, and wear your own interactive garments (Make: Technology on Your Time)</u>, 2014, ISBN-13:978-1449336516</li> <li>• Leah Buechley (Editor), Kylie Peppler (Editor), Michael Eisenberg (Editor), Yasmin Kafai (Editor):<u>Textile Messages: Dispatches From the World of E-Textiles and Education</u>, 2013, ISBN-13: 978-1433119194</li> </ul>	