

## MS4662 – Appreciating IP in Research & Development

<b>Course Code</b>	MS4662				
<b>Course Title</b>	Appreciating IP in Research & Development				
<b>Pre-requisites</b>	MS4660	Fundamentals of Intellectual Property in Materials Science and Engineering			
<b>Pre-requisite for</b>	NIL				
<b>No of AUs</b>	3				
<b>Contact Hours</b>	Lectures	26	Tutorials	13	
<b>Course Aims</b>					
<p>This course provides you with a working understanding on engineering research and development and intellectual property (IP) in related context. It also trains you to apply and use IP knowledge to address real-life IP-related issues in the R&amp;D context.</p> <p>Key themes that will be covered are assessing IP issues related to R&amp;D, and the implementation and monitoring of suitable approaches to address these IP issues. Expanding on these, the course explores how an understanding of IP rights protection laws and their considerations can guide and support an organisation's R&amp;D activities and strategies.</p> <p>Particular emphasis will be placed on the practical and legal issues in relation to managing the R&amp;D value chain of creation/innovation, identification, ownership, protection, and commercial exploitation of intellectual assets. Case studies related to various branches of engineering including materials science engineering, will be presented and discussed.</p>					
<b>Intended Learning Outcomes (ILO)</b>					
<p>By the end of this course, you (as a student) would be able to:</p> <ol style="list-style-type: none"> <li>1. Appraise the objectives and importance of R&amp;D to an organisation</li> <li>2. Identify IP issues in relation to the R&amp;D life cycle and context</li> <li>3. Assess relevant IP management matters in a given R&amp;D context</li> <li>4. Formulate and recommend suitable approaches or relevant IP practices in order to maximize R&amp;D outcomes.</li> <li>5. Develop ways to address IP issues arising in R&amp;D life-cycle and R&amp;D management processes.</li> <li>6. Explain which stakeholders should be collaborated with in an R&amp;D context</li> </ol>					
<b>Course Content</b>					
<ol style="list-style-type: none"> <li>1. Introduction &amp; Importance of R&amp;D (2 hours)</li> </ol>					

2. Objectives of R&D (4 hours)
3. Assessing IP Issues in Relation to R&D: Types of IP Rights, Knowledge Leakages, Trade Secrets, Collaboration Issues, Methods of Commercialization, Infringement Avoidance (10 hours)
4. Objectives of approaches to address IP issues (4 hours)
5. Implementing Courses of Action to address IP issues (6 hours)
6. Assessing IP Issues in Relation to R&D: Monitoring Implementation (2 hours)

### **Reading and References**

1. IPA-authored Learner's Guide containing key content (required)
2. Martin A. Bader, Intellectual Property Management in R&D Collaborations, SPRINGER, 2006.

### **Course Policies and Student Responsibilities**

As a student of the course, you are required to abide by both the University Code of Conduct and the Student Code of Conduct. The Codes provide information on the responsibilities of all NTU students, as well as examples of misconduct and details about how students can report suspected misconduct. The university also has the Student Mental Health Policy. The Policy states the University's commitment to providing a supportive environment for the holistic development of students, including the improvement of your mental health and wellbeing. These policies and codes concerning students can be found in the following link.

<http://www.ntu.edu.sg/SAO/Pages/Policies-concerning-students.aspx>

### **Academic Integrity**

Good academic work depends on honesty and ethical behavior. Quality of your work as a student relies on adhering to the principles of academic integrity and to the NTU Honor Code, a set of values shared by the whole university community. Truth, Trust and Justice are at the core of NTU's shared values.

As a student of NTU, it is important that you recognize your responsibilities in understanding and applying the principles of academic integrity in all the work you do at the University. Not knowing what is involved in maintaining academic integrity does not excuse academic dishonesty. You need to actively equip yourself with strategies to avoid all forms of academic dishonesty, including plagiarism, academic fraud, and collusion and cheating. If you are uncertain of the definitions of any of these terms, you should go to the [academic integrity website](#) for more information. Consult your instructor(s) if you need any clarification about the requirements of academic integrity in the course.