



# HANYANG UNIVERSITY

## Hanyang ERICA Summer School

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## 2018 HESS Course Syllabus

Course Information	Course Title(Eng)	Manufacturing Systems	Course Category	Core Major
	Course Title(Kor)	생산시스템설계		
	Credit-Lecture-Lab	3 credits-4.5 hrs-0 hrs	Course Restrictions	None
	College/School	<i>International Summer School(ERICA)</i>	College/School Responsible	College of Engineering Science
	Meeting Times	3.30PM~4.30M	Electronic Attendance	Y/N

Instructor Info	Department	Industrial & Management Engineering	Name	Prof. Biswajit Sarkar
	Contacts	+82-10-7498-1981	E-mail	<a href="mailto:bsbsiswajitsarkar@gmail.com">bsbsiswajitsarkar@gmail.com</a>
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Course Type	Teaching Method	Lecture through PPT presentation		

Course Description	<p>Manufacturing system is a major part of any manufacturing industry. The important part is to design and operate the perfect efficiency of the manufacturing system. It is very important to make a reliable manufacturing system. The contents are as follows: concept, definitions and importance, inventory management, just-in-time system, facility planning and control, manufacturing scheduling, process selection and capacity planning, material requirement planning and purchasing planning, project management, automated manufacturing system.</p>
Course Objectives	<p>After completion of the course, the student can solve real life problem based on manufacturing system. They have the idea related with the manufacturing process, scheduling, automated manufacturing, just-in-time system, process selection and capacity planning. They are able to think about new research ideas related with real life problem.</p>



Notice for Students	PPT Materials needed
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Textbook	No.	Title	Author	Publisher	ISBN	Price(KRW)

Evaluation	Evaluation Criteria	Percentage(%)	Evaluation Criteria	Percentage(%)
	Attendance	10	Quiz	10
	Assignments	10	Mid-term Exam	20
	Discussion	10	Final Exam	20
	Team Project	10	Participation	10
	Other			Percentage(%)
	Total 100 %			

Daily Lecture Plan and Assignments	Day	Title	Activity
	1	Basic Concepts of manufacturing systems	1 <sup>st</sup> Half: Basic concepts on manufacturing systems 2 <sup>nd</sup> Half: Problems on manufacturing systems
	2	Inventory management	1 <sup>st</sup> Half: Inventory management 2 <sup>nd</sup> Half: Inventory management
	3	Research problems allotment	1 <sup>st</sup> Half: Research problem with manufacturing System 2 <sup>nd</sup> Half: Research problem with manufacturing System
	4	JIT	1 <sup>st</sup> Half: Just-In-Time (JIT) manufacturing system 2 <sup>nd</sup> Half: Debate over Manufacturing system and inventory management
	5	Presentations	1 <sup>st</sup> Half: Presentation on research problem 2 <sup>nd</sup> Half: Presentation on research problem
	6	Midterm Quiz	1 <sup>st</sup> Half: Midterm Test on manufacturing systems 2 <sup>nd</sup> Half: Quiz on JIT



	7	Facility location problems	1 <sup>st</sup> Half: Facility location for manufacturing system (FLMS) 2 <sup>nd</sup> Half: Problems on FLMS
	8	Discussion of research problems	1 <sup>st</sup> Half: Research problem with manufacturing System 2 <sup>nd</sup> Half: Research problem with manufacturing System
	9	Process selection	1 <sup>st</sup> Half Process Selection for manufacturing Systems 2 <sup>nd</sup> Half: Process Selection for manufacturing Systems
	10	Presentation Final exam	1 <sup>st</sup> Half: Presentations of research problem 2 <sup>nd</sup> Half: Final Term Test on whole course