

Course Description

Introductory Engineering Design			
Yr. : 1	Sem. : 2	Course Code:	GC0002
This course is aim to cultivate the basic design ability through considerrating actual limited factors of industry standard, economical efficiency, environment, morals, confidence to guide creative solution method of engineering problem.			
Polymeric materials			
Yr. : 2	Sem. : 1	Course Code:	GC2001
This course aims for student s to have fundamental knowledge on polymeric materials from synthesis to applications for cultivating ability to develop polymer and fiber products.			
Chemical Safety Engineering			
Yr. : 2	Sem. : 1	Course Code:	GC2002
This course studies types, characteristics and potential risks of chemicals, safety management of chemical processes and systems, and environmental safety, which are core knowledges in the School of Integrated Chemical Materials Engineering.			
Organic Chemistry 1			
Yr. : 2	Sem. : 1	Course Code:	GC2003
Lecture will be given on the understanding on the structures and reaction of organic materials used for fibers and advanced materials including nomenclature of chemicals, molecular structure and bonding of organic materials, chemical reactions and their mechanisms, etc.			
Fashion and Consumers			
Yr. : 2	Sem. : 1	Course Code:	GC2004
This subject covers fashion theory and social psychology of fashion consumers.			
Fabric Design			
Yr. : 2	Sem. : 1	Course Code:	GC2005
The aim of fabric design is to bring up the weaving skill and understanding the construction of three foundation weaves as plain weave, twill weave and satin weave. Also, it is to undergo empirical studies applied in various dyeing techniques for cultivate fabric design ability			
Color Planning			
Yr. : 2	Sem. : 2	Course Code:	GC2006
As having the basic knowledge of chromatics and creative color coordinate capacities therefore, it is to cultivate the color coordinate abilities so as to lead modern color age.			

Textile materials			
Yr. : 2	Sem. : 2	Course Code:	GC2007
This course aims for student s to have fundamental and practical knowledge on textile materials of natural fibers, man-made fibers and high performance and functional textiles for cultivating ability to develop textile products.			
Organic Chemistry 2			
Yr. : 2	Sem. : 2	Course Code:	GC2008
Based on knowledge of the Organic Chemistry I, lecture will be given on the deeper understanding on the structures and properties of organic materials including biochemistry of natural organic materials, nomenclature of chemicals, molecular structure and bonding, chemical reaction and mechanism, etc.			
Textile Planning and Sourcing			
Yr. : 2	Sem. : 2	Course Code:	GC2009
This course helps students to investigate global textile industry, to analyze fashion fabric trends, and to develop textile planning ability.			
Physical Chemistry			
Yr. : 2	Sem. : 2	Course Code:	GC2010
This lecture is to systemize the theories, laws, and principles about chemistry by mathematical quantification, to derive fundamental equations, to understand their physical meaning, and to learn their practical application.			
Coloration Engineering			
Yr. : 3	Sem. : 1	Course Code:	GC2011
. Lecture will be given on the following textile coloration topics such as physicochemical properties of dyes and pigments, interaction between colorants and textiles, coloration process, evaluation of color and color fastness, computer color matching(CCM), CCK, environmental effect, etc.			
Fashion Marketing			
Yr. : 3	Sem. : 1	Course Code:	GC2012
This subject covers marketing principles and consumer behavior concerning fashion products.			
Apparel Design			
Yr. : 3	Sem. : 1	Course Code:	GC2013
The course of apparel design accompanied the observation of fashion show and fabric exhibition, so as to these inspection can be understand the structure and characteristics of modern apparel industry.			
Advanced Materials Synthesis			
Yr. : 3	Sem. : 1	Course Code:	GC2014

This course addresses the mechanism and characteristics of polycondensation, radical/ionic polymerizations, and miscellaneous reactions to synthesize fiber and polymer materials with commercial importance and advanced applications.			
3D Apparel CAD			
Yr. : 3	Sem. : 1	Course Code:	GC2015
This course is aim to make students become textile professionals for digital age with empirical studies applied in CAD system.			
Nano-Technology and Materials			
Yr. : 3	Sem. : 1	Course Code:	GC2016
This course deals with fundamental and practical knowledge as well as trend in convergence of nanotechnology in organic materials such as polymers and textiles on the purpose of cultivating student's ability to develop advanced polymeric and textile materilas.			
Fiber Frocessing			
Yr. : 2	Sem. : 1	Course Code:	GC2035
General knowlede on fiber and fabric manufacturing processes, including fiber spinning, weaving, knitting and non-wovens. Also current trends in industrial fiber processing is also introduced.			
Advanced Materials Finishing			
Yr. : 3	Sem. : 2	Course Code:	GC2018
Lecture will be given on the following physico-chemical finishes, which improve the aesthetic and functional properties of textile-related products, such as easy-care finish including durable press and shrink resistant treatments, antistatic finish, UV and electromagnetic radiation shield finish, antimicrobial finish, flame-retardant finish, health-care finish, moisture-permeable waterproof fnish, color deepening finish, etc.			
Fashion Textile			
Yr. : 3	Sem. : 2	Course Code:	GC2019
The aim of fashion textile is to bring up design professionals who will be the leader of materials fashion age and making high value added fashion textiles which are reflected the fashion trend.			
Practice of Dyeing and Finishing			
Yr. : 3	Sem. : 2	Course Code:	GC2020
. tudents carries out several experiments and materials designs related to the coloration and finishing of textiles such as preparation of textiles, dyeing formulation and procedures suitable for specific fibers, color fastness tests, color assessment, spectrophotometer measurement, functional finishes, etc.			
Information-Technology and Materials			

Yr. : 3	Sem. : 2	Course Code:	GC2021
This course deals with fundamental and practical knowledge as well as trend in convergence of information technology in organic materials such as polymers and textiles on the purpose of cultivating student's ability to develop smart materials and systems.			
Marketing Research			
Yr. : 3	Sem. : 2	Course Code:	GC2022
This course helps students to study research methodology and basic statistics, and to perform a marketing research project.			
Instrumental analysis of Advanced Materials			
Yr. : 3	Sem. : 2	Course Code:	GC2023
This course is intended to understand and apply various instrumental methods such as thermal analysis, nuclear magnetic resonance spectroscopy, Infrared spectroscopy, UV-visible spectroscopy, optical microscopy, electron microscopy, and chromatography to identify structures and properties of fibers, polymers, and functional materials.			
Product Planning and Development for New Materials			
Yr. : 4	Sem. : 1	Course Code:	GC2024
This course is a cooperative team project launching a new textile/fashion brand.			
Planning for Materials Design Engineering I			
Yr. : 4	Sem. : 1	Course Code:	GC2025
Planning for textile engineering enabling students to become professionals and leaders in the nano-bio textile industry by team work study for selected subject.			
Technical textiles			
Yr. : 4	Sem. : 1	Course Code:	GC2026
This course deals with practical knowledge and trend on technical textiles applied in the fields including automotive applications, medical textiles, geotextiles, agrotextiles, and protective clothings.			
Shop Master			
Yr. : 4	Sem. : 1	Course Code:	GC2027
Learning the ability of shop management in the fashion industry and cultivated the ability of VMD and shop manager by applying the basic fashion knowledge of color and materials.			
Functional Modification of Advanced Materials			
Yr. : 4	Sem. : 1	Course Code:	GC2028
Lecture will be given on the physicochemical surface modification of textiles in order to improve the functionality of textiles-related advanced materials and to cultivate the students' ability to develop new textile products.			

Textile experiments			
Yr. : 4	Sem. : 1	Course Code:	GC2029
. This course aims to cultivate student's ability to apply theoretical and fundamental knowledge obtained from the courses in experiments including preparation of materials, fabrication, analysis and measurements of polymeric/textile materials and products.			
Medical Textiles			
Yr. : 4	Sem. : 2	Course Code:	GC2030
Lecture will be given on the biotechnology-derived advanced textile products such as medical and bioactive fibers, and the students' own development of new medical textiles will be encouraged.			
Advanced Composite Materials			
Yr. : 4	Sem. : 2	Course Code:	GC2031
Composites incorporating fibers and polymers have been used as structural and functional materials in various areas such as transportation, sports, construction, electronics, etc. This course addresses design, structure, and property of composite and nanocomposite materials.			
Fashion Internet Marketing			
Yr. : 4	Sem. : 2	Course Code:	GC2032
This subject provides the knowledge of fashion internet business including the characteristics of internet marketing and internet consumers.			
Textile Studio			
Yr. : 4	Sem. : 2	Course Code:	GC2033
Cultivated the practical ability of fashion industry and planning the textiles were reflecting the fashion trends in color and materials by the basic fashion knowledge and textile CAD skill.			
Planning for Materials Design Engineering II			
Yr. : 4	Sem. : 2	Course Code:	GC2034
Planning for materials design engineering enabling students to become professionals and leaders in the materials design industry by team work study for selected subject.			