

ST. MARY'S COLLEGE
FORM Upper Six
SUBJECT- GMED
Course Outline 2014-2015

Term 1

Proposed Date/Week	Unit/Section	Topic	Modules
Wk 1	02 : 03	Design Process	<ul style="list-style-type: none"> • Stages in design process
Wk 1 & 3	02 : 01	System of Forces	<ul style="list-style-type: none"> • Triangle • Parallelogram • Polygon • Resultant • Equilibrant • Forces on beams • Forces on frames
Wk 4		Internal Assessment	<ul style="list-style-type: none"> • IA Discussion - 1st Preliminary Design • Sketches and write-up
Wk 5	02 : 03	Transmission of Motion & Power	<ul style="list-style-type: none"> • Belt Drives • Chain Drives • Couplings
Wk 6		Internal Assessment	<ul style="list-style-type: none"> • IA Discussion - 2nd Preliminary Design • Sketches and write-up
Wk 7	02 : 03	Transmission of Motion & Power	<ul style="list-style-type: none"> • Gears • Brakes • Clutches
Wk 8	02 : 02	Bearings & Bushings	<ul style="list-style-type: none"> • Roller • Ball • Journal • Bush
Wk 9	02 : 02	Lubrication & Seals	<ul style="list-style-type: none"> • Types of lubricants • Methods of applications • Static • Dynamic

Wk 10	02 : 03	Design Principles	<ul style="list-style-type: none"> • Elements • Aesthetics and Ergonomics • Cost
Wk 11		Internal Assessment	<ul style="list-style-type: none"> • IA Discussion - 3rd & 4th (Final) Design • Sketches and write-up
Wk 12 & 13	02 : 03	Construction of Spur Gears	<ul style="list-style-type: none"> • Involute spur gears • IA Discussion 4th (Final) Design

Department of Technical Studies

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Term 2

Proposed Date/Week	Unit/Section	Topic	Modules
Wk 1 & 3	02 : 01	Skew Lines	<ul style="list-style-type: none"> • True angle between intersecting lines • True angle between intersecting planes • True angle between lines and planes • Traces of lines on planes • Traces of planes on planes • Traces of perpendicular planes • Traces of oblique planes • Oblique planes and its inclination to the planes of reference
Wk 4 & 5	02 : 02	Materials	<ul style="list-style-type: none"> • Metals • Plastics • Rubber • IA Discussion 4th (Final) Design
Wk 6 & 7	02 : 02	Manufacturing Processes	<ul style="list-style-type: none"> • Machine Tools Operations • Casting • Forging • Fabrication • Safety in Manufacturing • IA Discussion 4th (Final) Design
Wk 8 & 9	02 : 03	Design Details	Design for: <ul style="list-style-type: none"> • Casting • Forging • Fabrication • Machining • IA Discussion 4th (Final) Design
Wk 10 & 11		Internal Assessment	Final write-up and submission