<table>
<thead>
<tr>
<th>Subject Code</th>
<th>BRE291</th>
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<tbody>
<tr>
<td>Level</td>
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</tr>
<tr>
<td>Contact Hours</td>
<td>Lect:21 Tut/Lab:21</td>
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<tr>
<td>Student Effort Hours</td>
<td>120</td>
</tr>
<tr>
<td>Assessment Method</td>
<td>Coursework 40% Examination 60%</td>
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<tr>
<td>Credit Value</td>
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<tr>
<td>Pre-requisites</td>
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<tr>
<td>Co-requisites</td>
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<tr>
<td>Exclusions</td>
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<tr>
<td>Subject Leader/ Lecturer/Dept.</td>
<td>W.K. Kong (BRE)</td>
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### Subject Aim:

*This subject is intended to:*

1. Equip students with an understanding of scientific and engineering principles governing the construction of buildings.
2. Be aware of the range of building materials available for construction and gain an understanding of the key concepts determining classification, properties and applications.

### Learning Outcomes:

*Students will demonstrate their ability to:*

1. Relate basic construction vocabulary and terminology of construction for various building elements/components,
2. Possess a knowledge of functional requirements of various building elements/components.
3. Give preliminary appraisal to the performances of various building elements/components with respect to their corresponding performance requirements.
4. Relate the inter-relationship among building elements/components.
5. Interpret and extract information from construction drawings.

### Brief Syllabus Content:

**Technology:**

Introduction to the development of construction technology. System concept in modeling construction process.

Functional requirements, vocabulary and construction processes of various building elements: including excavation & foundations, walls, floors and roofs.

Functional requirements, vocabulary and construction processes of various building components: including stairs, non-load bearing walls, doors, windows suspended ceiling and finishes.

**Structure:**

Introduction to structural engineering concept and vocabulary. Introduction to forces and their effects on structures.

Simple flexural theories on beams and trusses.

### Learning and Teaching Approach *(tasks and activities designed to achieve learning outcomes):*

Lectures, tutorials and laboratory constitute the delivery of the subject. Lectures aims at delivering the basic core and concepts and knowledge, which are to be discussed and consolidated through tutorials and laboratories.

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*Teaching activities: Lecture (LT)/Tutorial (TU)/Seminar (SM)/Drawing (DW)/Laboratory or Practical (LB)/Studio (ST)/Workshop (WS)/Project (PJ)/Field Study (FS)/Guided Study (GS)/Visit (VS)
**Assessment strategy** (assessment of student performance resulting from learning tasks):

Assessment of the subject will be in the form of written report, journal of site activities and drawing exercises and tutorial exercises on structures.

Written report aims at assessing students’ competence in relating and appraising functional requirements of building elements/components.

Journal of site activities helps students to relate concept and knowledge to actual works on site and relate the inter-relationship among building elements/components.

Tutorial exercises provide opportunities to students to apply structural principles in explaining simple structural behaviour and solving simple structural design problems.

The split between coursework and examinations will be 40/60.

**Reading List:**

**Recommended:**


**Supplementary:**


