

<b>Course Number and Name</b>	
BCE 201 & Basic Civil Engineering	
<b>Credits and Contact Hours</b>	
2 & 30	
<b>Course Coordinator's Name</b>	
Mr.Pradeep Kumar	
<b>Text Books and References</b>	
<b>Text Books:</b>	
<ol style="list-style-type: none"> <li>1. Raju.K.V.B, Ravichandran .P.T, “Basics of Civil Engineering”, Ayyappa Publications, Chennai, 2012.</li> <li>2. SeetharamanS., “Basic Civil Engineering”, Anuradha Agencies, (1<sup>st</sup> ed. 2005).</li> <li>3. Dr.M.S.Palanisamy, “Basic Civil Engineering” (3<sup>rd</sup>ed. 2000), TUG Publishers, New Delhi/Tata McGraw Hill Publication Co., New Delhi</li> </ol>	
<b>Reference Books:</b>	
<ol style="list-style-type: none"> <li>1. Rangwala.S.C, ”Engineering Materials”, Charotar Publishing House, Anand, 41st Edition: 2014.</li> <li>2. National Building Code of India, Part V, “Building Materials”, 2005</li> <li>3. Ramesh Babu“A Textbook on Basic Civil Engineering” (1998). Anuradha Agencies, Kumbakonam.</li> <li>4. RamamruthamS., “Basic Civil Engineering”, DhanpatRai Publishing Co. (P) Ltd. (1999).</li> </ol>	
<b>Course Description</b>	
Understand the basic concepts of civil engineering.	
<b>Prerequisites</b>	<b>Co-requisites</b>
+2 Level Maths& Physical Science	Nil
<b>required, elective, or selected elective (as per Table 5-1)</b>	
Required	
<b>Course Outcomes (COs)</b>	
CO1: Will gain knowledge in Design, concept preparation CO2: Loading calculation CO3: Structural component design CO4: Drawing and chart preparation CO5: Will understand the components of buildings. CO6: Will learn the engineering aspects to dams , water supply and sewage disposal	
<b>Student Outcomes (SOs) from Criterion 3 covered by this Course</b>	

COs/POs	a	b	c	d	e	f	g	h	i	j	k	l
CO1	H	H			H		L					
CO2					H	H						
CO3							H	L				
CO4									L			
CO5										H	L	
CO6												

### List of Topics Covered

#### **UNIT I CIVIL ENGINEERING MATERIALS 8**

Introduction – Civil Engineering – Materials – Stones – Bricks – Sand – Cement – Plain Concrete – Reinforced Cement Concrete – Steel Sections – Timber – Plywood – Paints – Varnishes (simple examples only)

#### **UNIT II SURVEYING 5**

Surveying – objectives – classification – principles of survey – Measurement of distances – Chain survey – Determination of areas – Use of compass – Use of leveling Instrument – (simple examples only)

#### **UNIT III FOUNDATION FOR BUILDING 5**

Bearing Capacity of Soil – Foundation – Functions – Requirement of good foundations – Types of foundations – Merits & Demerits.

#### **UNIT IV SUPERSTRUCTURE 7**

Stone Masonry – Brick Masonry – Columns – Lintels – Beams – Roofing – Flooring – Plastering – White Washing (Simple examples only)

#### **UNIT V MISCELLANEOUS TOPICS 5**

Types of Bridges – Dam – purpose – selection of site – Types of Dams – Water Treatment & Supply sources – standards of drinking- distribution system. – Sewage Treatment (simple examples only)