



COLLEGE OF TECHNOLOGY AND ENGINEERING

DEPARTMENT OF CIVIL ENGINEERING
3 YEAR BE I SEMESTER SESSION 2015-16

1. Course Code : **CE 315**
2. Course Title : **COMPUTER APPLICATIONS IN CIVIL ENGINEERING**
3. Credit : 1(0+1)
4. Theory Lecture Outlines :

1.	<i>Algorithms and flow charts</i>
2.	Computer Algorithms for problem solution and flow charts
3.	<i>Error Analysis: Approximations and errors</i>
4.	rounding of errors Truncation errors (using Taylor Series)
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6.	Absolute Error
7.	Absolute Error
8.	<i>Roots of Equation: Determination of roots of polynomials</i>
9.	transcendental equations by Secant, Bisection and Newton-Raphson methods
10.	<i>Linear Algebraic Equation: Solutions of simultaneous linear algebraic equations by Gauss Elimination and Gauss- Jordan methods.</i>
11.	<i>Curve Fitting: Linear regression analysis</i>
12.	Least square of fit of a straight line
13.	<i>Simple Programs: To analyze various Structural elements using C/C++</i>
14.	programming
15.	programming

Suggested Books & References

1. Sastry, S. S. "Introductory Methods of Numerical Analysis", 4th ed. Prentice- Hall of India, New Delhi.
2. Jain, Iyengar and Jain, "Numerical Methods for Scientific and Engineering Computation", New Age International, New Delhi.

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