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|  | **APPLIED MATHEMATICS (ITC 301) – LESSON PLAN** |

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| **Course & Branch** | **S.E. (PRODUCTION)** | **Current Semester** | **III** |
| **Academic Year** | **2019-20** | **Contact Hours** | **04 hours per week** |
| ***Teacher In-charge: Prof. Sundary S.Prabavathy***  |

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| ***Sr. No.*** | ***Name of the Topic*** | ***Planned Date***  | ***Executed Date*** | ***Remark*** |
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| 1 | Introduction to basic Calculus & other prerequisites | 01/07/2019 | 01/07/2019 |   |
| 2 | Introduction to Laplace Transform | 03/07/2019 | 03/07/2019 |   |
| 3 | Definition &formulae for L.T of standard functions | 08/07/2019 | 08/07/2019 |   |
| 4 | Properties of L.T | 12/07/2019 | 12/07/2019 |   |
| 5 | Problems on Standard functions &First Shifting  | 15/07/2019 | 15/07/2019 |   |
| 6 | ……………Multiplication by t &powers of t(>0) | 16/07/2019 | 16/07/2019 |   |
| 7 | ……………Division by t | 17/07/2019 | 17/09/2019 |   |
| 8 | ……………Change of scale &Second Shifting | 19/07/2017 | 19/07/2019 |   |
| 9 | Evaluation of integrals using L.T | 22/07/2019 | 22/07/2019 |   |
| 10 | Determining unknown constant in integrand using L.T | 23/07/2019 | 23/07/2019 |   |
| 11 | Inverse L.T: Definition &problems on Standard functions | 24/07/2019 | 24/07/2019 |   |
| 12 | Problems using Partial Fractions | 26/07/2019 | 25/07/2019 |   |
| 13 | ………………First Shifting  | 29/07/2019 | 29/07/2019 |    |
| 14 | ……………………………&Partial fractions combined | 30/07/2019 | 30/07/2019 |   |
| 15 | ……………….Convolution Theorem | 31/07/2019 | 02/08/2019 |  |  |
| 16 | ……………………………..&First Shifting combined | 02/08/2019 | 02/08/2019 |   |
| 17 | ………………derivatives of F(s) for special cases(log etc) | 05/08/2019 | 06/08/2019 | holiday  |
| 18 | ………………Heavy side ,Unit step& Dirac delta | 06/08/2019 | 06/08/2019 |   |
| 19 | Solving Differential equations using L.T& Inverse L.T | 07/08/2019 | 07/08/2019 |   |
| 20 | Problems on……………………continued | 09/08/2019 | 09/08/2019 |   |
| 21 | Complex Variables(Introduction) | 19/08/2019 | 19/08/2019 | 13-16,U.T  |
| 22 | Definition of Analytic, Harmonic, Regular functions,theorems | 20/08/2019 | 20/08/2019 |   |
| 23 | Problems on Constructions of analytic functions(given :u) | 21/08/2019 | 21/08/2019 |   |
| 24 | ………………………………………………….(given :v) | 23/08/2019 | 23/08/2019 |   |
| 25 | …………………………………….(given: u+v or u-v) | 26/08/2019 | 26/08/2019 |   |
| 26 | …………finding Harmonic Conjugate & Ortho’l Trajectories | 27/08/2019 | 27/08/2019 |   |
| 27 | ……….proving f(z) is constant given 2 conditions | 28/08/2019 | 28/08/2019 |   |
| 28 | ………….finding second order derivatives of given functions | 30/08/2019 | 29/08/2019 | Mid break  |
| 29 | Bilinear Transformations(B.T)Definitions & theorems | 09/09/2019 | 09/09/2019 |   |
| 30 | Problems for finding images of given curves under given B.T | 11/08/2019 | 11/09/2019 |   |
| 31 | ……………………(CONTINUED) | 13/09/2019 | 11/09/2019 | extra  |
| 32 | …………………….Fixed Points &Normal Form | 16/09/2019 | 13/09/2019 |   |
| 33 | …………………..B.T given 3 points z &their images w | 17/09/2019 | 17/09/2019 |   |
| 34 | ……………………………using Cross Ratio | 18/09/2019 | 20/09/2019 |   |
| 35 | Complex Integration: Line Integrals :using Cartesion co ordi’s | 20/09/2019 | 20/09/2019 | extra  |
| 36 | …………………………………………..Parametric form | 23/09/2019 | 23/09/2019 |   |
| 37 | Cauchy’s Integral Theorem & problems | 24/09/2019 | 25/09/2019 |   |
| 38 | …………Residue ……………………. | 25/09/2019 | 26/09/2019 |   |
| 39 | …………Integral Formula…………… | 27/09/2019 | 29/09/2019 |   |
| 40 | Evaluation of Real Integrals using CRT(Initeg’d f(cos,sin)) | 30/09/2019 | 30/09/2019 |   |
| 41 | …………………………………………(Integ’d f(x))  | 01/10/2019 | 01/10/2019 |  |
| 42 | Laurent’s Series | 03/10/2019 | 03/10/2019 |  |
| 43 | Numerical method :Bender’s for solving P.D.E | 04/10/2019 | 04/10/2019 |  |
| 44 | …………………...:Nicholson’s ………………… | 07/10/2019 | 04/10/2019 | extra |
| 45 | Analytical method :One dimensional heat equation. | 09/10/2019 | 07/10/2019 |  |
| 46 | …………………..: Two …………………………. | 10/10/2019 | 09/10/2019 |  |
| 47 | …………………...:Wave Equation | 11/10/2019 | 09/10/2019 | extra |
| 48 | ……………………………………..(continued) | 17/10/2019 | 11/10/2019 | 14-16 UT |
| 49 | Correlation Co-efficient(Karl Pearson)Theory &formulae | 21/10/2019 | 01/11/2019 |  |
| 50 | Regression Analysis(Theory &Formulae) | 22/10/2019 | 01/10/2019 |  |
| 51 | Problems on Regression &Correlation | 23/10/2019 | 02/11/2019 |  |
| 52 | Fitting of Curves :Principle of Least Squares(Problems) | 24/10/2019 | 02/11/2019 |  |
| 53 | Rank Correlation(Spearman):Repeated &Non-repeated ranks | 25/10/2019 | 08/11/2019 |  |
| 54 | Extra Problems on Correlation&Regression | 01/11/2019 | 08/11/2019 |  |
| ***Signature and Date: C:\Users\cpmputer\Desktop\2.png08/11/2019Faculty: Sundary S Prabavathy HOD***  |
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Note:01/11/2019 to 08/11/2019:Extra Lectures taken( after term ended)to complete 100% syllabus