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**اسم الجامعة:ديالى**

**اسم الكلية:الهندسة**

**اسم القسم: الالكترونيك**

**المرحلة: الثالثة**

**اسم المحاضر الثلاثي:حنان بديع**

**اللقب العلمي: مدرس مساعد**

**المؤهل العلمي: ماستر**

**مكان العمل: كلية الهندسة**

**(( استمارة الخطة التدريسية السنوية ))**

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| **حنان بديع احمد** | | | | **اسم التدريسي:** |
| **Hanan1980@yahoo.com** | | | | **البريد الالكتروني:** |
| Engineering & Numerical Analysis | | | | **اسم المادة:** |
| **The aim of this subject is to make the students ready to undestand and comprehend the scientific theories and their applications related to their field of the study.** | | | | **أهداف المادة:** |
| Advanced Mathematics by Wiley. | | | | **الكتب المنهجية:** |
| Calculus by James Stewart ,Barbara Frank. | | | | **المصادر الخارجية:** |
| **الامتحان النهائي** | **المختبرات** | **الفصل**  **الثاني** | **الفصل الأول** | **تقديرات الفصل:** |
| 60% | 0% | 20% | 20% |
|  | | | | **معلومات إضافية:** |

**جدول الدروس الأسبوعي – الفصل الدراسي الأول**

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| **الملاحظات** | **المادة العملية** | **المادة النظرية** | **التاريخ** | | **الأسبوع** |
|  |  | Fourier transform | **29/9/2015** | | 1 |
|  |  | Properties , convolution theorm | **5/10/2015** | | 2 |
|  |  | power spectral density and correlation | **12/10/2015** | | 3 |
|  |  | signals and linear system ,applications. | **19/10/2015** | | 4 |
|  |  | The Z- transform | **26/10/2015** | | 5 |
|  |  | Region of convergence, properties of Z-transform | **2/11/2015** | | 6 |
|  |  | Z-transform pairs, the inverse of Z-transform | **9/11/2015** | | 7 |
|  |  | analysis and discrete- time systems, applications | **16/11/2015** | | 8 |
|  |  | Numerical Analysis | **23/11/2015** | | 9 |
|  |  | Solution of non-linear eguations (Iteration ,bisection and Newton – Raphson). | **30/11/2015** | | 10 |
|  |  | Finite differences | **7/12/2015** | | 11 |
|  |  | Numerical differentiation and Integration | **14/12/2015** | | 12 |
|  |  | Numerical Solution of 1st order ordinary differential equations | **21/12/2015** | | 13 |
|  |  | Matrix anaylsis | **28/12/2015** | | 14 |
|  |  | Review of matrix theory | **4/1/2016** | | 15 |
|  |  | linear transformation | **11/1/2016** | | 16 |
| العطلة الربيعية | | | | 15/1/2016 to  1/2/2016 | |

**توقيع الأستاذ: توقيع رئيس القسم توقيع العميد:**

**جدول الدروس الأسبوعي – الفصل الدراسي الثاني**

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| **الملاحظات** | **المادة العملية** | **المادة النظرية** | **التاريخ** | **الأسبوع** |
|  |  | egin values & egin vectors | **15/2/2016** | 1 |
|  |  | laplace transform of matrices, application of matrices to electric cct. | **22/2/2016** | 2 |
|  |  | Definition, frequency distribution (relative & commulative, mean, standard deviation). | **1/3/2016** | 3 |
|  |  | Definition, frequency distribution (relative & commulative, mean, standard deviation). | **8/3/2016** | 4 |
|  |  | Definition, mutually exclusive & conditional probability | **15/3/2016** | 5 |
|  |  | permutations & combinations, probability distribution, normal & Poisson distributions | **22/3/2016** | 6 |
|  |  | Function of complex variable , complex differentiation | **29/3/2016** | 7 |
|  |  | analytic function & its properties, integration in the complex plane | **5/4/2016** | 8 |
|  |  | Cauchy's theorem , Cauchy's integral, taylor's theorem, Laurent series, the residue theorem. | **12/4/2016** | 9 |
|  |  | Legendre's equation, Legendre's polynomials | **19/4/2016** | 10 |
|  |  | Bessel function of the first and second order kinds, Bessel function properties. | **26/4/2016** | 11 |
|  |  | Partial differential equation | **3/5/2016** | 12 |
|  |  | Wave equation | **10/5/2016** | 13 |
|  |  | laplace's equation | **17/5/2016** | 14 |
|  |  | solution of boundary condition problems | **24/5/2016** | 15 |
|  |  | solution by separation of variables | **1/6/2016** | 16 |

**توقيع الأستاذ: توقيع رئيس القسم توقيع العميد:**