



**CURRICULAR STRUCTURE**

FORM Nº 19 – **COURSE SYLLABUS/ACTIVITY**

**CONTENT OF STUDIES**

**DIGITAL AND ANALOGUE ELECTRONICS**

SUBJECT NAME/ACTIVITY	CODE	CONCEPTION ( ) ALTERATION: NAME ( ) CL ( ) TRANSLATION: (X)
Digital Electronics Laboratory	TEE00131	

DEPARTMENT/IMPLEMENTATION COORDINATION: ELECTRICAL ENGINEERING DEPARTMENT

COURSE LOAD: 30 HOURS      THEORETICAL: 0 HOURS      PRACTICAL: 30 HOURS      INTERNSHIP: 0 HOURS

**PROGRAM CONTENT**

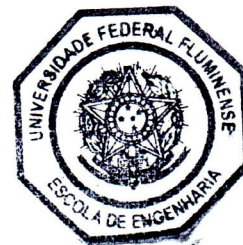
- 1ST PRACTICE - INTRODUCTION TO THE RULES OF THE LAB AND IDENTIFICATION OF THE RESOURCES;
- 2ND PRACTICE - NAND AND NOR GATES;
- 3RD PRACTICE - BOOLEAN ALGEBRA AND KARNAUGH'S SIMPLIFICATION;
- 4TH PRACTICE - ARITHMETIC CIRCUITS: SUBTRACTOR AND ADDERS;
- 5TH PRACTICE - ASTABLE AND MONOSTABLE MULTIVIBRATOR;
- 6TH PRACTICE - FLIP FLOP RS, JK AND D;
- 7TH PRACTICE - COUNTERS;
- 8TH PRACTICE – MULTIPLEXER PROJECT;
- 9TH PRACTICE - DECODERS;
- 10TH PRACTICE - A/D CONVERTER;
- 11TH PRACTICE - D/A CONVERTER;
- 12TH PRACTICE - DISPLAYS AND COUNTERS OPERATION;
- 13TH PRACTICE - FREQUENCY METER IMPLEMENTATION WITH FLIP-FLOPS AND 74LS161;
- 14TH PRACTICE - MICROPROCESSOR PROGRAMMING.

**BASIC BIBLIOGRAPHY:**

1. F. CAPUANO, V. IDOETA, "ELEMENTOS DE ELETRONICA DIGITAL", - ED. ÉRICA, 2001;
2. N.S. WIDMER, R.J. TOCCI, "SISTEMAS DIGITAIS – PRINCIPIOS E APLICAÇÕES", ED. PRENTICE HALL, 11ª EDIÇÃO, 2011;
3. R. L. BOYLESTAD, L. NASHELSKY, "DISPOSITIVOS ELETRÔNICOS E TEORIA DE CIRCUITOS", 8ª EDIÇÃO, 2004;
4. W.S. ZANCO, "MICROCONTROLADORES PIC – TÉCNICAS DE SOFTWARE E HARDWARE PARA CIRCUITOS ELETRONICOS", ED. ÉRICA;
5. J.W. BIGNELL, "ELETRONICA DIGITAL", ED. CENARGE LEARNING.

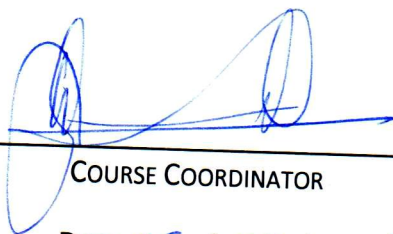


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COMPLEMENTARY BIBLIOGRAPHY:

1. A. CAPELLI, "ELETRÔNICA PARA AUTOMAÇÃO", ANTENNA EDIÇÕES TÉCNICAS, 1ª. EDIÇÃO, 2007;
2. D.E. LALOND, J.A. ROSS, PRINCÍPIOS DE DISPOSITIVOS E CIRCUITOS ELETRÔNICOS, VOLUMES 1 E 2, MAKRON BOOKS, 1999;
3. A.S.SEDRA, "MICROELETRONICA", 5ª EDIÇÃO, ED. PEARSON.



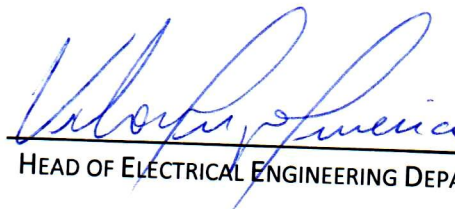
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COURSE COORDINATOR

DATE 05 / 03 / 2018

November/2017

*Daniel Henrique N. Dias*  
Coordenador do Curso de  
Graduação em Eng. Elétrica  
Matr. SIAPE 1847851



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HEAD OF ELECTRICAL ENGINEERING DEPARTMENT

DATE 05 / 03 / 2018

*Prof. Vitor Hugo Ferreira, D.Sc.*  
Chefe do Depto. Eng. Elétrica UFF  
Matr. SIAPE 1672218