



UNIVERSITATEA „VASILE ALECSANDRI” din BACĂU

Facultatea de Inginerie

Calea Mărășești, Nr. 157, Bacău, 600115, Tel./Fax +40 234
580170

<http://inginerie.ub.ro>; e-mail: decaning@ub.ro



English for IT Engineering Students

Asist. univ. dr. Gabriela Andrioai

**Alma Mater –Bacău
2019**

CONTENTS	
FOREWORD	5
Unit I. INTRODUCTION – ENGLISH FOR IT	7
The Importance of Studying English/ Technical English	7
I.1. English is Fascinating	7
I.2. Technical English	9
I.3. Getting into the Field of Information Technology	13
Unit II. COMPUTER USE AND APPLICATION	18
2.1. The Need for Computers in the Modern Society	18
2.2. Computer System	24
UNIT III. IT CAREERS	32
3.1. Getting a Diploma in the Field of Information Technology	32
3.2. Job Related Vocabulary	37
3.3. Job Opportunities in Computing	43
UNIT IV. COMPUTER HARDWARE	50
4.1. Input devices	50
4.2. Output Devices	55
UNIT V. SOFTWARE	60
5.1. Programming Languages	60
5.2. The differences between Java, C++, and C#	65
5.3. Compilers	71
UNIT VI. SYSTEM CONCEPTS	78
6.1. Open Loop and Closed Loop Control Systems in the Classical Control Theory	78
6.2. General Nature of the Engineering Control and Automation Problem	84
VII. GRAPHICS, MULTIMEDIA AND DESIGN	90
7.1. Graphics and Design	90
7.2. Multimedia	95
7.3. Engineering Design	100
VIII. NETWORK AND SECURITY	106
8.1. Network Structures and Topologies	106
8.2. Networks and Security	112

UNIT IX. THE WORLD WIDE WEB	118
9.1. The Rise of the World Wide Web	118
9.2. Graphics Piracy on the Internet	124
UNIT X. SOFTWARE ENGINEERING	132
10.1. What is Software Engineering?	132
10.2. Python for Science and Engineering	137
UNIT XI. MODERN TECHNOLOGY	142
11.1. Artificial Intelligence	142
11.2. Improving Robots' Senses	148
XII. REVISION	154
List of Irregular Verbs	165
Bibliography	169