COURSE GUIDE

Dean, Prof. Daniela Tărniceriu

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1. Program info

1.1 Higher education institution	"Gheorghe Asachi" Technical University of Iaşi
1.2 Faculty / Department	Electronics, Telecommunications and Information Technology
1.3 Department	Telecommunications and Information Technologies
1.4 Field	Electronic Engineering, Telecommunications and Information Technology
1.5 Study level	Bachelor's Degree Studies
1.6 Study program / Qualification	Telecommunications Systems and Technologies

2. Course info

2.1 Course name: Applied Informatics 1						Code: EDOF135	
2.2 Course organizer (lecturer)		PhD Lecturer Daniel Matasaru					
2.3 Teaching assistants		PhD Lecturer Daniel Matasaru					
2.4 Year of study	1	2.5 Semester	1	2.6 Assessement	C	2.7 Type of subject	MD

3. Estimated total time (hours per semester for teaching activities)

3.1 Number of hours per week	3	3.2 lecture	2	3.3 seminar/laboratory	1
3.4 Total number of hours in curricula	42	3.5 lecture	28	3.6 seminar/laboratory	14

Time distribution	hours
Textbook, course support, references and course notes study	28
Library, electronic platforms and on site documentation	14
Seminar/laboratory preparation, homework, reports, portfolios and essays	14
Tutoring	4
Assessment	10
Other activities	16

3.7 Total individual study hours	86
3.9 Total hours per semester	128
3. 10 Number of credit points	4

4. Prerequisites (where applicable)

4.1 curricula type	
4.2 competence type	

5. Infrastructure (where applicable)

5.1. for lectures	Lectures will be held with logistic support (computer, projector, intranet access)
5.2. for laboratories	Laboratories must be completed entirely, there is a bonus system for excellence. Participation in the final exam is conditioned by full completion of labs and project achievement and presentation.

6. Specific competences

Professional competences	● Cognitive competences: ■ Using a browser on Internet, advanced level . ■ Using e-communications (email,instant messaging,forum,blog,chat, FTP etc), advanced level. ■ Getting relevant information from the Internet, advanced level (searching engines; SEO; RSS, newsletter, blogging, social media) ● Technical competences: ■ Network design and implementation, entry level. ■ Creating/appending web pages in HTML, advanced level. ■ Creating/appending dynamic web pages in HTML, entry level. (CSS, Javascript, XML) ● Professional competences ■ Creating information web directories, entry level. ■ Creating a personal webpage, advanced level. ■ Ability to customize blogging platforms (Wordpress, Blogspot), entry level. ■ Creating and customizing personal accounts and page on social media (LinkedIn, Facebook)
Transversal competences	✓ Efficient use of informational sources and communication resources and assisted professional formation through the use of Internet services ✓ Training of analytical and synthetical skills for professional enhancement all life long ✓ Ability to work in an international/multicultural private companies, eventually being part of remote located teams

7. Course targets (as resulting from **6. Specific competences** table)

7.1 Course main target	Deep knowledge of thehourstical and practical developments in web technologies.
7.2 Course specific targets	✓Getting students acquainted to Internet essentials (browsers, searching engines,client-server model,applications, email, protocols, social media, SEO) ✓Minimal knowledge for web page design (HTML, CSS, Javascript, XML) ✓Student awareness for advantages of new web technologies and developing skills for Internet applications and services in order to build a strong succesfull professional career in the field of telecom engineering.

8. Contents

8. 1 Lectures	**Teaching methods**	**Notes**
Internet – introduction and history.	Case study Explanation Giving examples Exercises Debate Connections with real life situations	1 hours
Some reference data, structure and development of the Internet		1 hours
Browser, web server, HTTP protocol (the client-server model, HTTP Request, HTTP Response)		2 hours
HTML language, Introduction and history		1 hours
HTML tags, attributes, formatting, structure of a HTML document		1 hours
HTML, the <head> section, Main tags		1 hours
HTML, the <body> section, Main tags		1 hours
CSS styles, Syntax, Selectors, CSS Box Model		2 hours
Javascript language – main concepts (Variables, Data types, Operators, Conditional statements - if, else, switch, Loops - for, while, do-while, Functions)		2 hours
XML language –introductory elements (tree structure, syntax rules, naming rules, metadata, XML validators, XML editors)		2 hours
Internet applications – email, FTP, forum, instant messaging, newsletter, RSS feeds, Feedburner		2 hours
Internet applications – traditional blogging services (Wordpress, Blogspot), microblogging services (Tumblr, Tweeter, Pinterest, Facebook)		2 hours
Searching engines – histroy, examples, how it works, biasing, limitations, PageRank, SEO, data privacy		2 hours
Social Media – definitions and clasification, platforms, social networks, marketing and data mining, criticism, employment impact, statistics		2 hours
TCP/IP protocol (definitions, ISO/OSI vs TCP/IP, TCP/IP layers, aplications, IP adress, network address, host address, IP classes static and dynamic IP's)		2 hours
Internet protocol (routing, DNS, IPv4, IPv6)		2 hours
Crypto-currencies and Blockchain technology - introductory elements.		2 hours
8. 2 Laboratories	**Teaching methods**	**Notes**
General aspects for computer networks (software and hardware, LAN, WAN)	Case study Explanation Giving examples	2 hours

TCP/IP model, Browsers	Exercises Debate Connections with real life situations	2 hours
Searching engines, PageRank, SEO		2 hours
Email, FTP		2 hours
HTML applications I		2 hours
HTML applications II		2 hours
Creating a webpage using HTML, CSS, Javascript and XML		2 hours
Bibliography (selection)		

1. Laboratorul de Microunde si Optoelectronica, http://rf-opto.etc.tuiasi.ro

2. Matasaru, Casian, Damian, Utilizare Internet , Indrumar de laborator, Rotaprint UTI, 2005

3. World Wide Web Consortium (W3C), http://www.w3c.org, Specificatii HTML

4. Tutoriale HTML, CSS, Javascript, XML, http:// www.w3schools.com

5. Free Online Learning at GCFLearnFree http://www.gcflearnfree.org/

10. Assessment

Activity type	10.1 Assessment criteria	10.2 Assessment methods	10.3 Percentage of final grade
10.4 Lectures	Degree of assimilationof a technical vocabulary Corectness and completness of knowledge Logical coherence and proper use of knowledge	Mixt examination: (50%); a) problem solving; b) traditional (written), all sources accepted; 2. Knowledge test - HTML, CSS, XML, Javascript, Internet applications and services (50%); a) Closed and open questions test; b) traditional (written), all sources accepted;	50%
10.5 Laboratory	Ability to use knowledge in order to design a personal webpage Creativity in problem solving Autenticity	Project	25%
	Frequency and sense of verbal interventions , Quality of work -Criteria for atittude towards the lectures and content (conscientiousness, interest)	Evaluare pe parcurs	25%

10.6 Minimum performance standard
Basic knowledge for designing a web page.

Completion date:
10.09.2019

Course organizer signature,
PhD Lect. Matasaru Petre-Daniel

Teaching assistant signature,
PhD Lect. Matasaru Petre-Daniel

Department approval date
16. SEP. 2019

Department director signature,
Conf. Dr.ing. LUMINITA SCRIPCARIU