Hypertext & hypermedia

WIOLETA SZWOCH DR

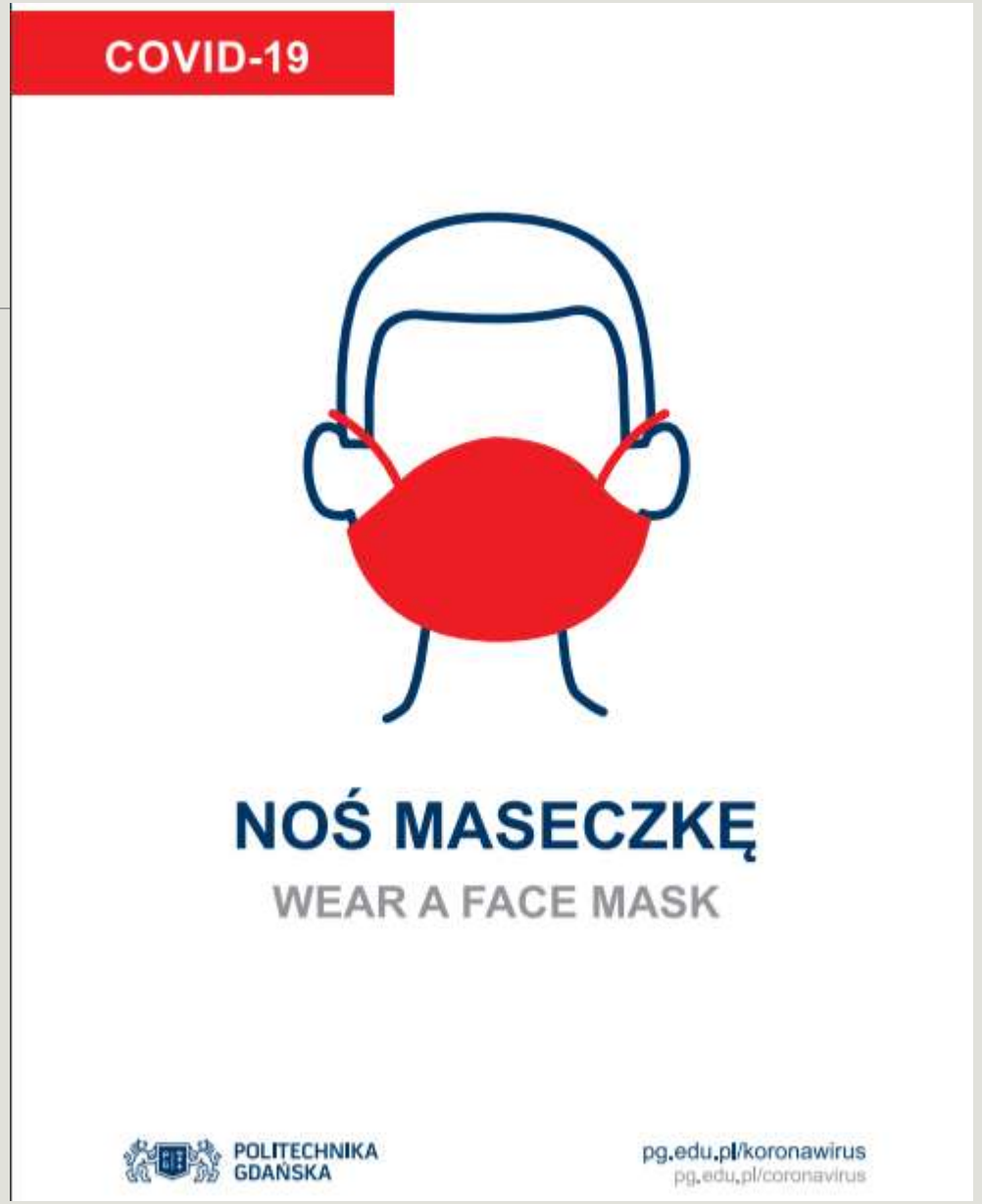
DEPARTMENT OF INTELLIGENT INTERACTIVE SYSTEMS

COVID-19

List

- first name, surname, index number and signature

Mask, distance



Previous years grade

repeating this course

- you can keep the grade (if you want)

mail

- wszwoch@eti.pg.edu.pl
- subject/topic: H&H grade
- contents: name, surname, index number, year, mark
- is my grade on the list at the end of the semester?

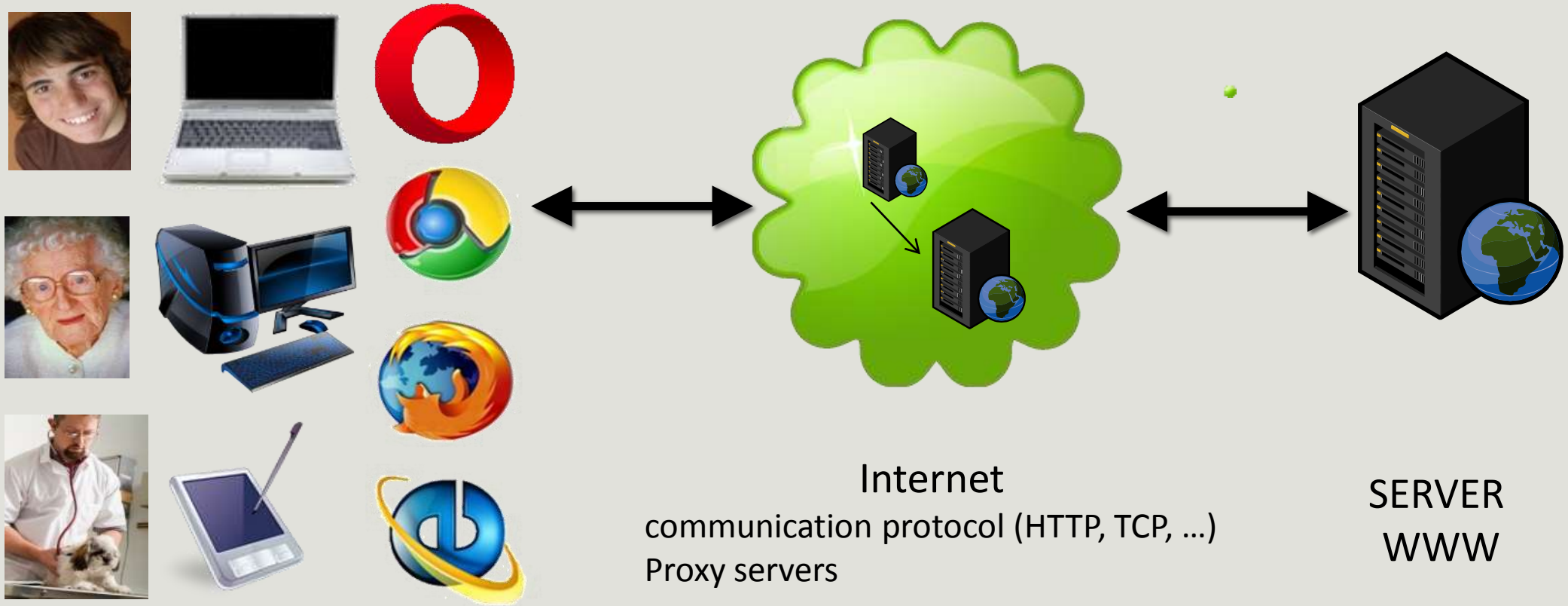
The purposes of the course

- Present the evolution of the concept of hypertext and hypermedia
- Learn basic issues about the presentation and transformation of information
- Get to know the technologies of implementing hypermedia and related services
- Familiarize yourself with the system of acquiring and presenting information using selected technologies

Contents

- Hypertext, hypermedia, Internet, Web
- HTML, CSS
- XML
- Document definitions (DTD, XML Schema)
- Document transformations (XSL)
- SVG
- …

H&H + WAI



CLIENT

Internet

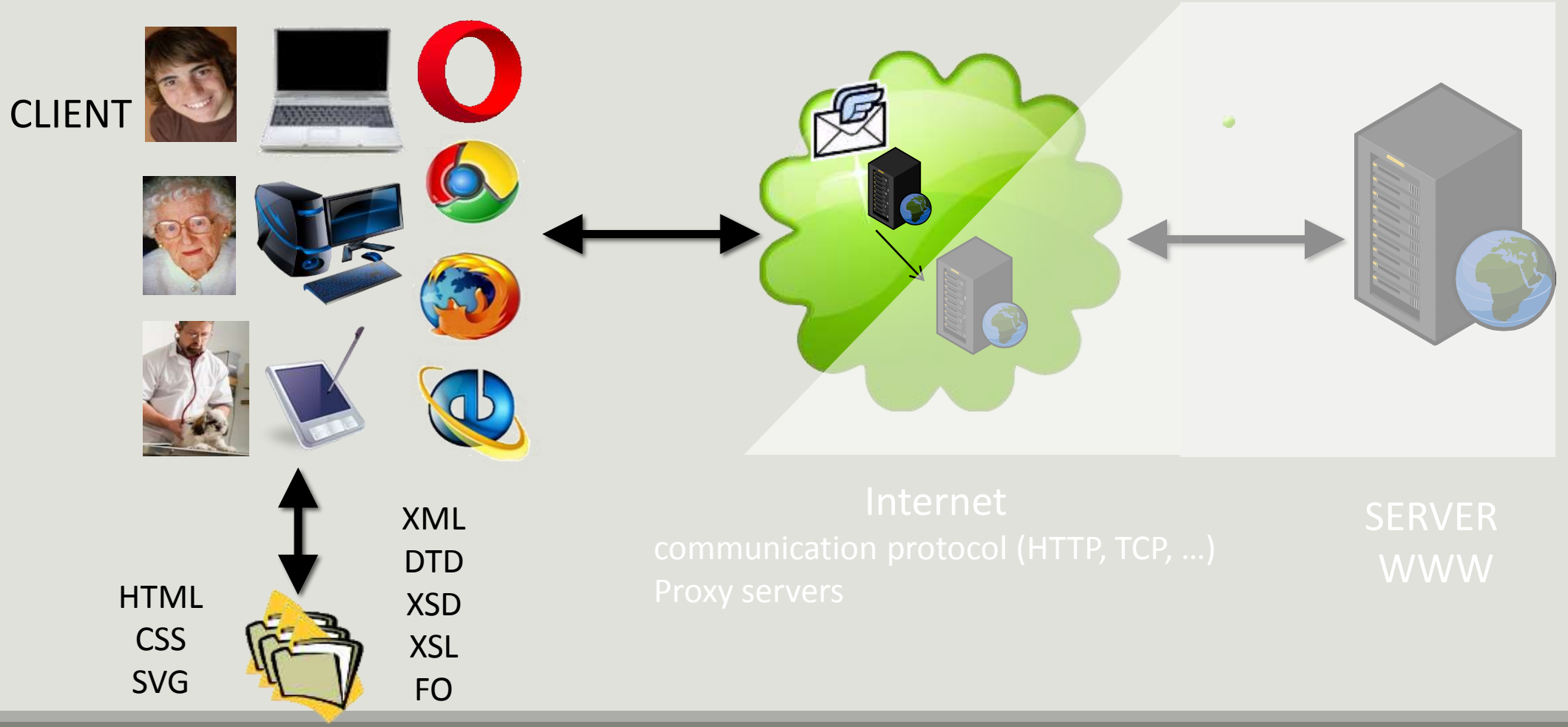
communication protocol (HTTP, TCP, …)

Proxy servers

SERVER

WWW

Hypertext & hypermedia

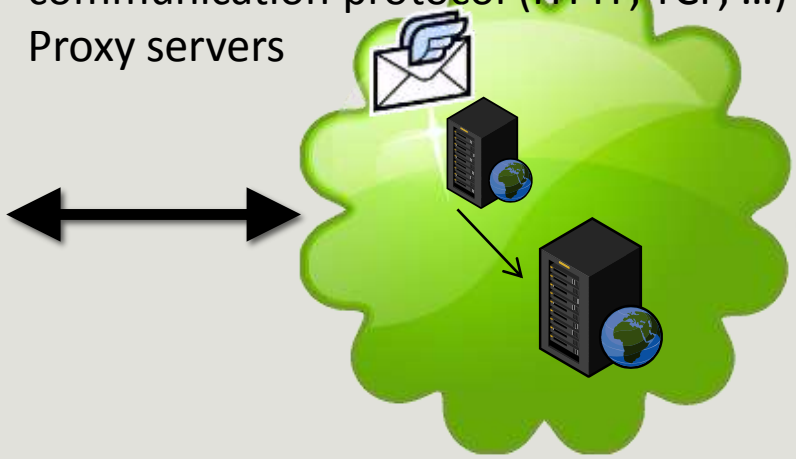


WAI - The web application development

Internet

communication protocol (HTTP, TCP, …)

Proxy servers



SERVER
WWW

server applications **PHP**, ASP, JSP, …

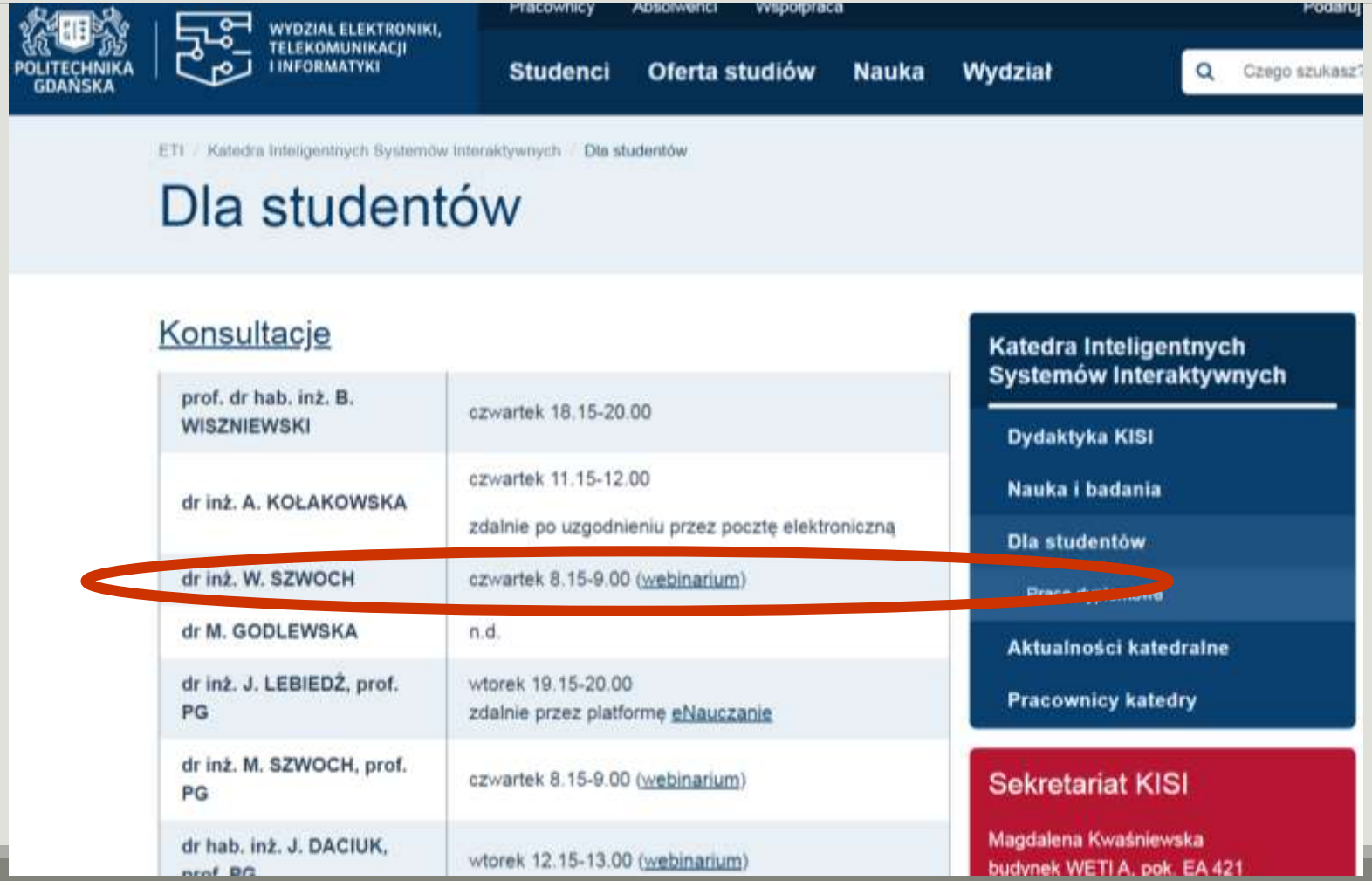
HTML, CSS, **JS**, SVG, XML, XSD, XSL,….

Why?:

- *I don't see,*
- *It looks different,*
- *It doesn't, work*
- *It works slowly*

server or browser error?

Office hours



Didactic materials enauczanie.pg.edu.pl/moodle/

materials for project

assignment to project groups

materials for lab

schedule

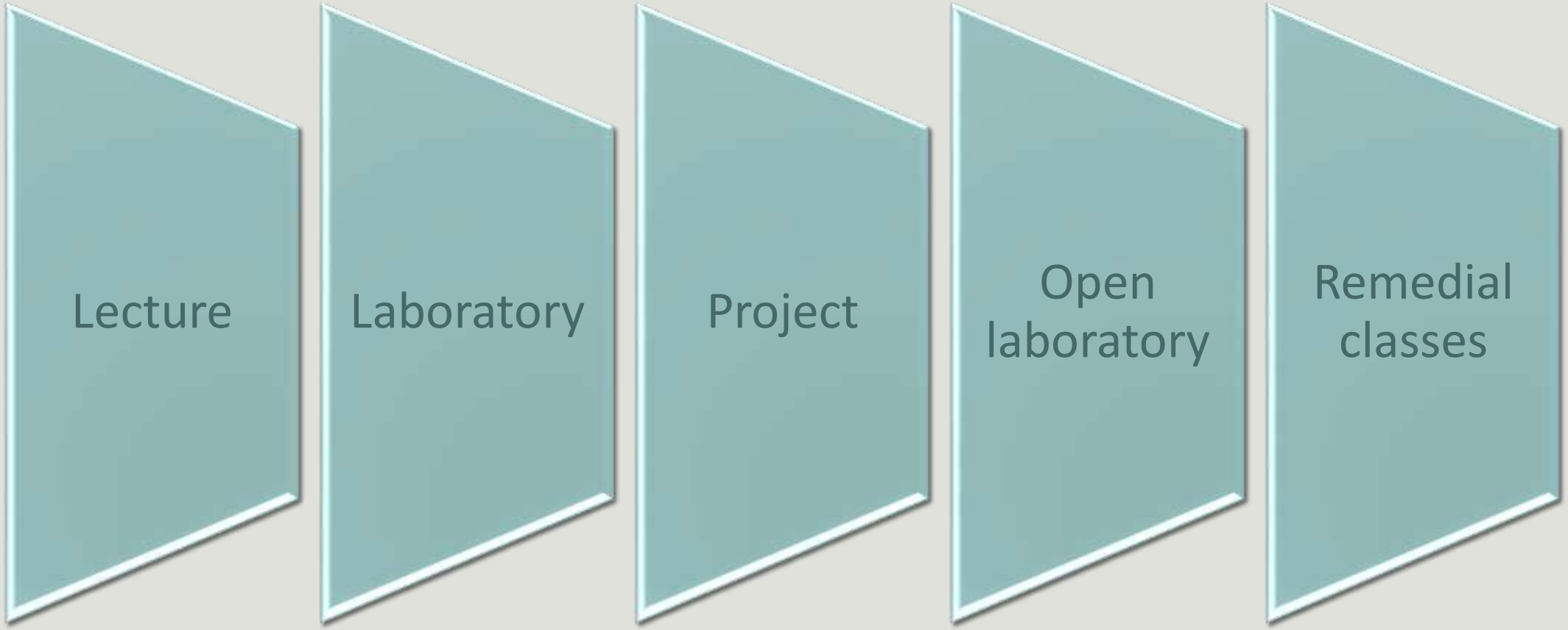
marks, score

additional information

slides from the lecture

important messages

Structure of the course



Structure of the course

Lecture

- theoretical fundamentals of the subject

Structure of the course

Lecture

Laboratory

- tasks allowing to become familiar with the practical application of issues learned during the lecture
- elementary issues of the subject
  - HTML
  - XML + XML Schema
  - XSL
  - detailed instructions
  - prepares for independent work during the project

Structure of the course

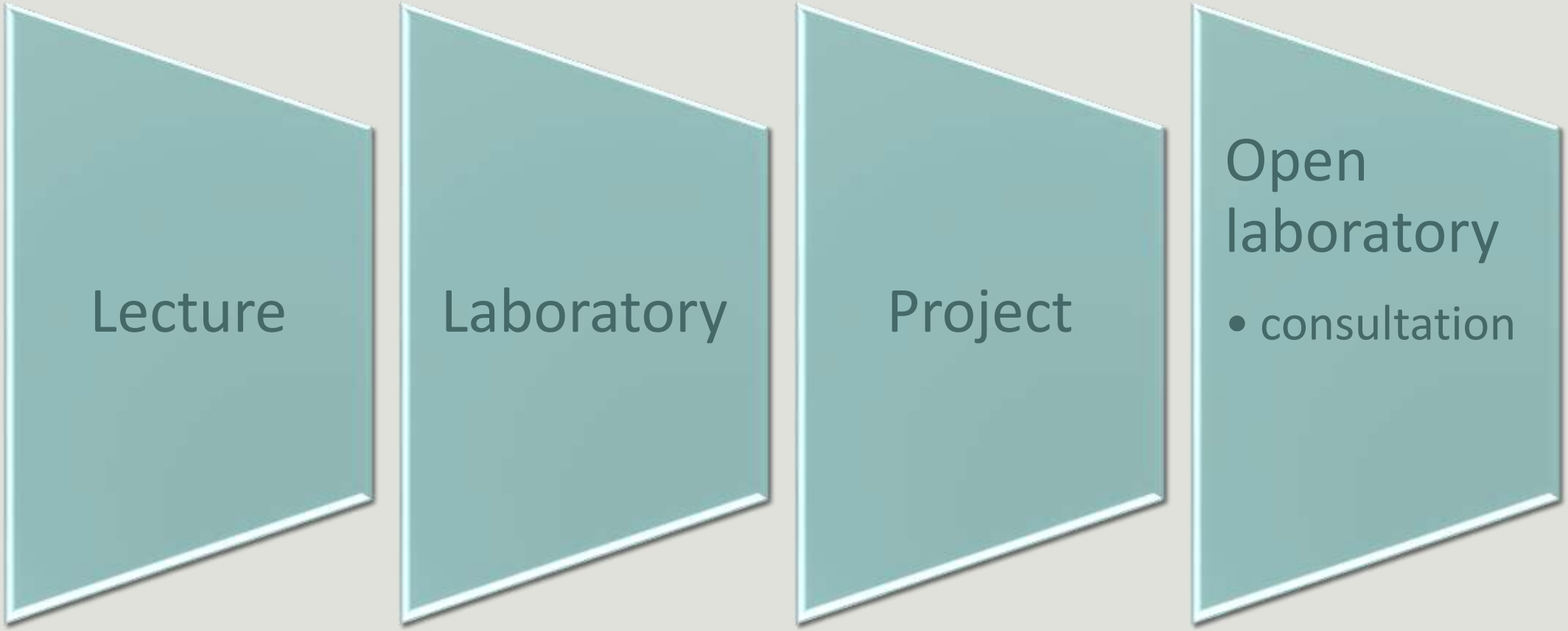
Lecture

Laboratory

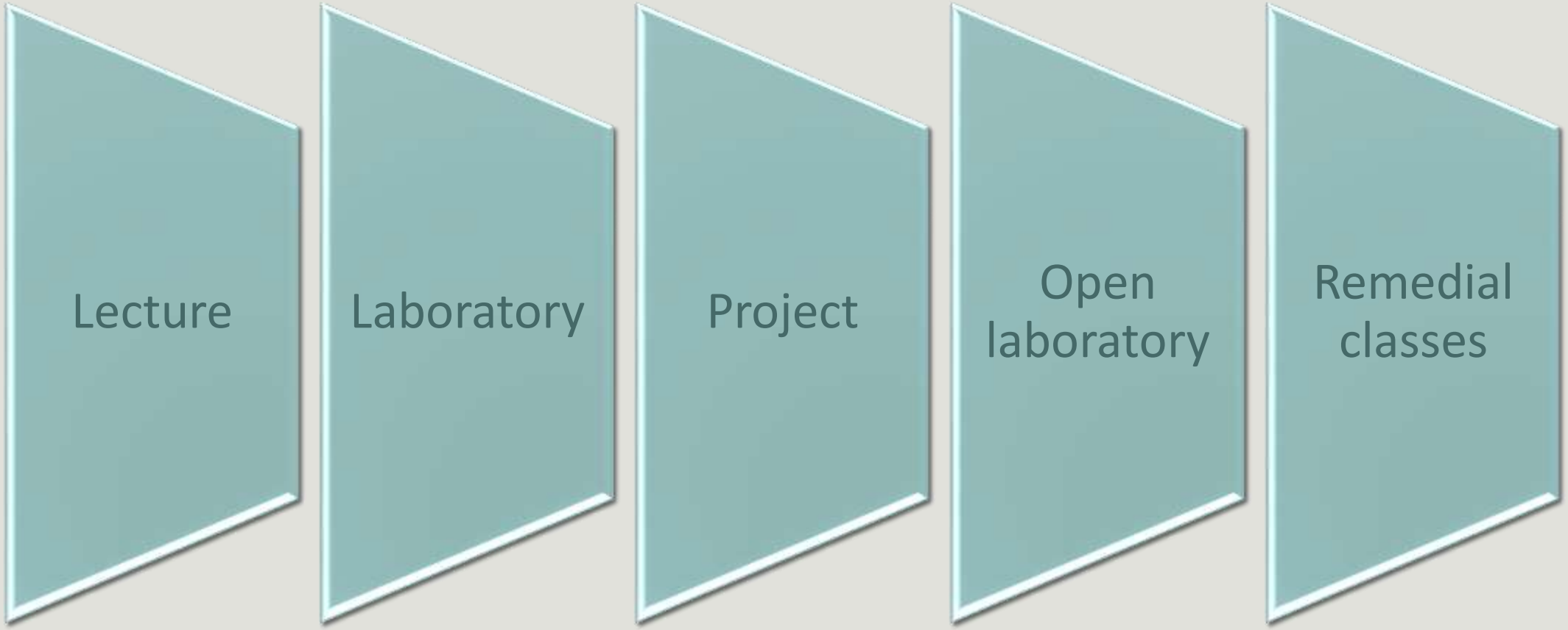
Project

- unassisted work on a given topic using the knowledge obtained during the lecture and laboratory
  - HTML, XML, XML Schema, DTD
  - XSLT

Structure of the course



Structure of the course



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Lecture													**K**	
		Lab 1		Lab 2		Lab 3								
									Project 1			Project 2		
				OL	OL	OL	OL	OL	OL					

Inżynieria danych / gr. 1

	Poniedziałek / Monday	Wtorek / Tuesday	Środa / Wednesday	Czwartek / Thursday	Piątek / Friday
07:00					
08:00	NE 161 [L] REPETYTORIUM Z PODSTAW PROGRAMOWANIA mgr inż. - - co 2 tygodnie	EA AUD.1 [W] Precalculus Magdalena Musielak			NE 160 [L] Basics of computer programming mgr inż. Tomasz Goluch do 03.11.2021
09:00	NE 161 [L] REPETYTORIUM Z PODSTAW PROGRAMOWANIA mgr inż. - - co 2 tygodnie	EA AUD.1 [W] Calculus Magdalena Musielak			NE 160 [L] Basics of computer programming mgr inż. Tomasz Goluch do 03.11.2021
10:00		EA AUD.1 [W] Linear algebra Magdalena Musielak		eNaucz03 [W] Hypertext and hypermedia dr inż. Wioleta Szwoch do 02.12.2021; zajęcia zdalne	
11:00	eNauczZ1 [W] Operating systems dr inż. Katarzyna Lukasiewicz do 29.11.2021; zajęcia zdalne	NE 209 [C] Calculus Magdalena Musielak	EA 504 [L] Operating systems dr inż. Katarzyna Lukasiewicz co 2 tygodnie EA 508 [L] Hypertext and hypermedia Magdalena Godlewska do 24.11.2021 co 2 tygodnie	eNaucz03 [W] Hypertext and hypermedia dr inż. Wioleta Szwoch do 02.12.2021; zajęcia zdalne	
12:00	eNauczZ1 [W] Operating systems dr inż. Katarzyna Lukasiewicz do 29.11.2021; zajęcia zdalne	NE 209 [C] Calculus Magdalena Musielak	EA 504 [L] Operating systems dr inż. Katarzyna Lukasiewicz co 2 tygodnie EA 508 [L] Hypertext and hypermedia Magdalena Godlewska do 24.11.2021 co 2 tygodnie	[W] Business law mgr inż. Maciej Nyka zajęcia zdalne	
13:00	eNauczZ1 [W] Economics and organization of enterpris Magdalena Popowska zajęcia zdalne	ZE 009 [C] Economics and organization of enterpris Magdalena Popowska	NE 239 [L] Basics of computer programming mgr inż. Tomasz Goluch do 24.11.2021	eNaucz03 [W] Basics of computer programming dr hab. Dariusz Dereniowski do 02.12.2021, zajęcia zdalne	
14:00	eNauczZ1 [W] Basics of computer programming dr hab. Dariusz Dereniowski do 29.11.2021, zajęcia zdalne	ZE 009 [C] Economics and organization of enterpris Magdalena Popowska	NE 239 [L] Basics of computer programming mgr inż. Tomasz Goluch do 24.11.2021	eNaucz03 [W] Basics of computer programming dr hab. Dariusz Dereniowski do 02.12.2021, zajęcia zdalne	
15:00	eNauczZ1 [W] Basics of computer programming	ZE 110 [C] Elements of logic and			

Organization of the course

lecture (15h)

- dr inż.W.Szwoch
- wszwoch@eti.pg.edu.pl
- 424 EA
- office hours: Thursday 8^{15} – 9^{00}

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Lecture													K	
		L1	L1	L2	L2	L3	L3							
									Project 1			Project 2		
				OL	OL	OL	OL	OL	OL	OL	OL			

Organization of the course

laboratory (6h) 3 labs x 2h

division into subgroups (18 students)

dr Magdalena Godlewska - maggodle@pg.edu.pl

lab is obligatory

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Lecture													K	
		L1	L1	L2	L2	L3	L3							
									Project 1			Project 2		
				OL	OL	OL	OL	OL	OL	OL	OL			

Organization of the course

open laboratory

- Piotr Sokołowski - psokolow@sound.eti.pg.gda.pl
- Maciej Blaszke - mblaszke@sound.eti.pg.gda.pl
- Sebastian Cygert - sebcyg@sound.eti.pg.gda.pl
- Damian Koszewski - damian.koszewski@pg.edu.pl
- Bartłomiej Mróz - bartlomiej.mroz@pg.edu.pl
- Marta Stefaniak - marta.stefaniak@pg.edu.pl

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Lecture													K	
		L1	L1	L2	L2	L3	L3							
									Project 1			Project 2		
				OL	OL	OL	OL	OL	OL	OL	OL			

Organization of the course

project (30min)

- dr hab. inż. Jan Daciuk - jandac@eti.pg.edu.pl

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Lecture													K	
		L1	L1	L2	L2	L3	L3							
									Project 1			Project 2		
				OL	OL	OL	OL	OL	OL	OL	OL			

Organization of the course

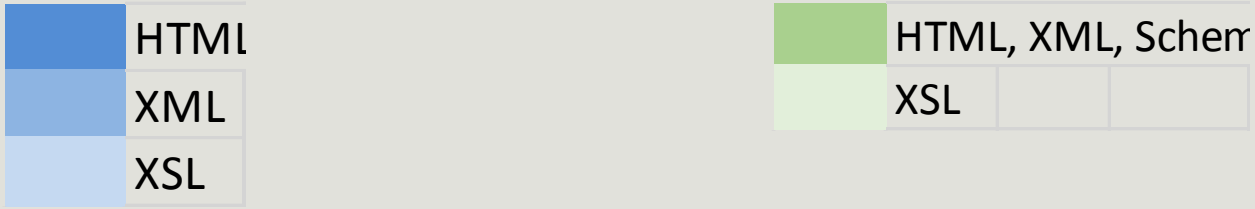
Remedial classes

- dr inż. Michał Sobaszek - micsobas@pg.edu.pl
- dr inż. Katarzyna Karpienko - katkarpi@pg.edu.pl

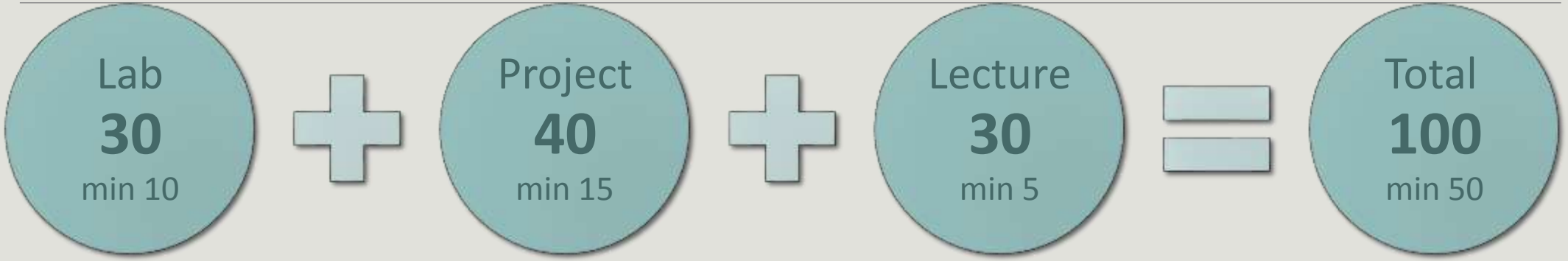
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
Lecture													K	
		L1	L1	L2	L2	L3	L3							
									Project 1			Project 2		
				OL	OL	OL	OL	OL	OL	OL	OL			
			RC				RC		RC					

	October					November				December					January			
Mon		4	11	18	25	**1**	8	15	22	29	6	13	20	27	3	10	17	24
Tue		5	12	19	26	2	9	16	23	30	7	14	21	28	4	11	18	25
Wed		6	13	20	27	3	10	17	24	1	8	15	22	29	5	12	19	26
Thu		7	14	21	28	4	**11**	18	25	2	9	16	23	30	6	13	20	27
Fri	1	8	15	22	29	5	12	19	26	3	10	17	24	31	7	14	21	28
Sat	2	9	16	23	30	6	13	20	27	4	11	18	25	1	8	15	22	29
Sun	3	10	17	24	31	7	14	21	28	5	12	19	26	2	9	16	23	30

Wednesday, 15 XII classes according to Thursday schedule
Friday, 7 I classes according to Thursday schedule



Completing the course



!!! 10 + 15 + 5 < 50 !!!

Laboratory	min 10 (presence at minimum 2 laboratories)
Project	min 15
Lecture	min 5
NP	**min 50**

Number of points	Grade
91-100	5
81-90	4,5
71-80	4
61-70	3,5
50-60	3
0-49	2

Test

24 I 2022 19^{00}

Lecture

- Hypertext, hypermedia
- HTML, CSS
- XML
- Document definition (DTD, XML Schema)
- Document transformation (XSLT)
- SVG
- DOM, SAX, XQuery
- …

Laboratory

HTML

1.1 web page

- structure of the page
- links
- forms
- multimedia
- css

XML + XML Schema

2.1 well formed XML file

2.2 XML Schema

- creating a hierarchy
- defining elements, attributes
- creating types

2.3 validating XML file

XSLT

3.1 XML → HTML transformation

- templates
- conditional instructions

Laboratory

detailed instruction, score

3. (0,5pt) In the `footer` section, enter your name, group number and current date. Refresh the page in the browser.
4. (0,5pt) In the `section` section, place the content downloaded from the file text.doc. Divide the content into two paragraphs using the <p> tag. Format fragment of the text using and tags. Refresh the page in the browser.

Project

HTML

XML + XML Schema, DTD

1.1 web page, HTML

- hypertext links
- media, forms, css

1.2 XML document

- tags, atributes, hierarchy

1.3 XML Schema

- definition of the structure of an XML document
- definitions of the elements and attributes
- types definitions
- lists, unions, groups

1.4 DTD

XSLT

2.1 XML -> HTML transformation

- templates
- loops, conditional instructions
- numbering, sorting, variables
- XPath

2.3 XML -> XML transformation

- creating new elements and attributes

Evaluation of the project

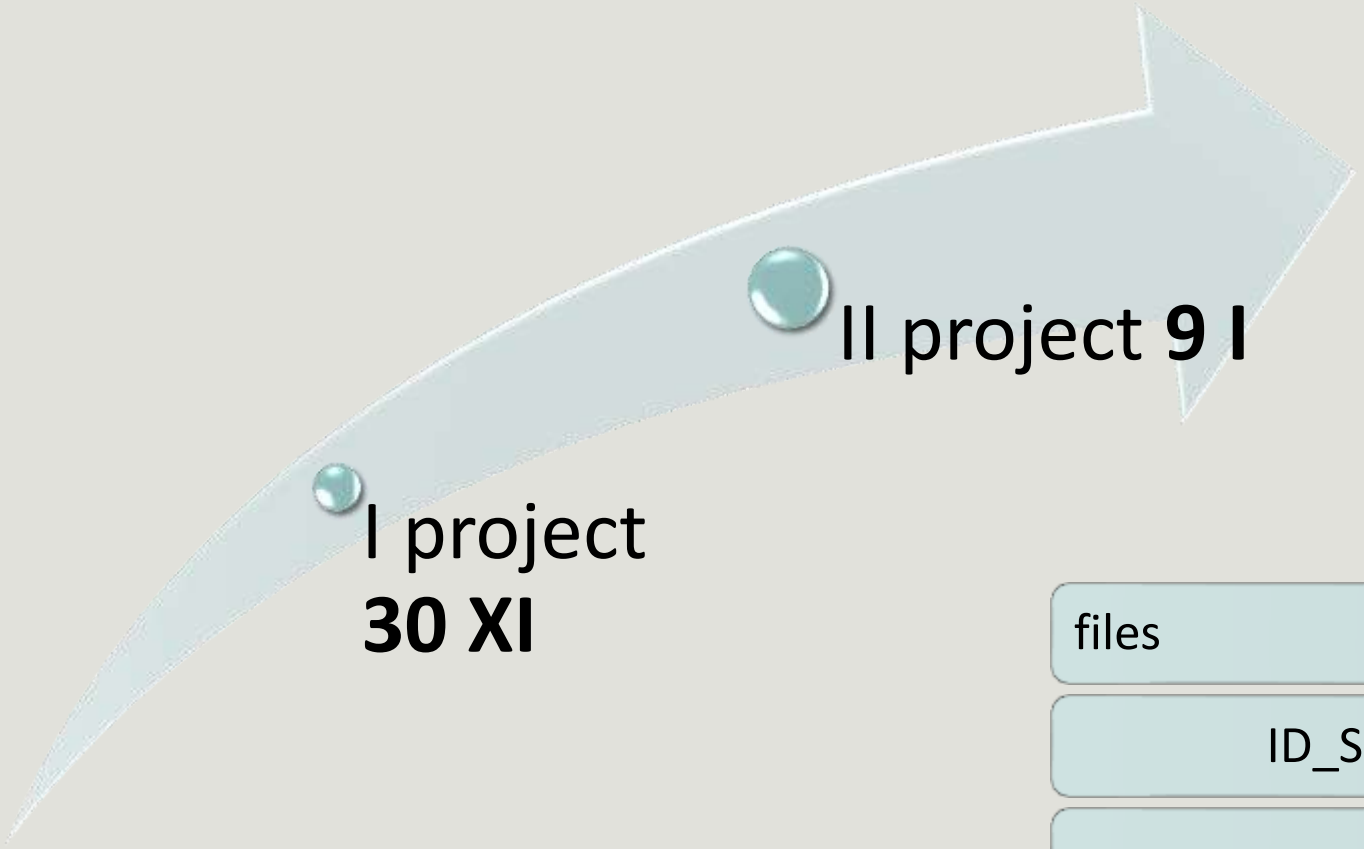
15 minutes

Individual date

it is not possible to change the date

you can exchange terms with each other

Evaluation of the project



files

ID_Surname_Name_NumberOfProject.**zip**

ID_Kowalski_Jan_1.**zip**

Evaluation of the project

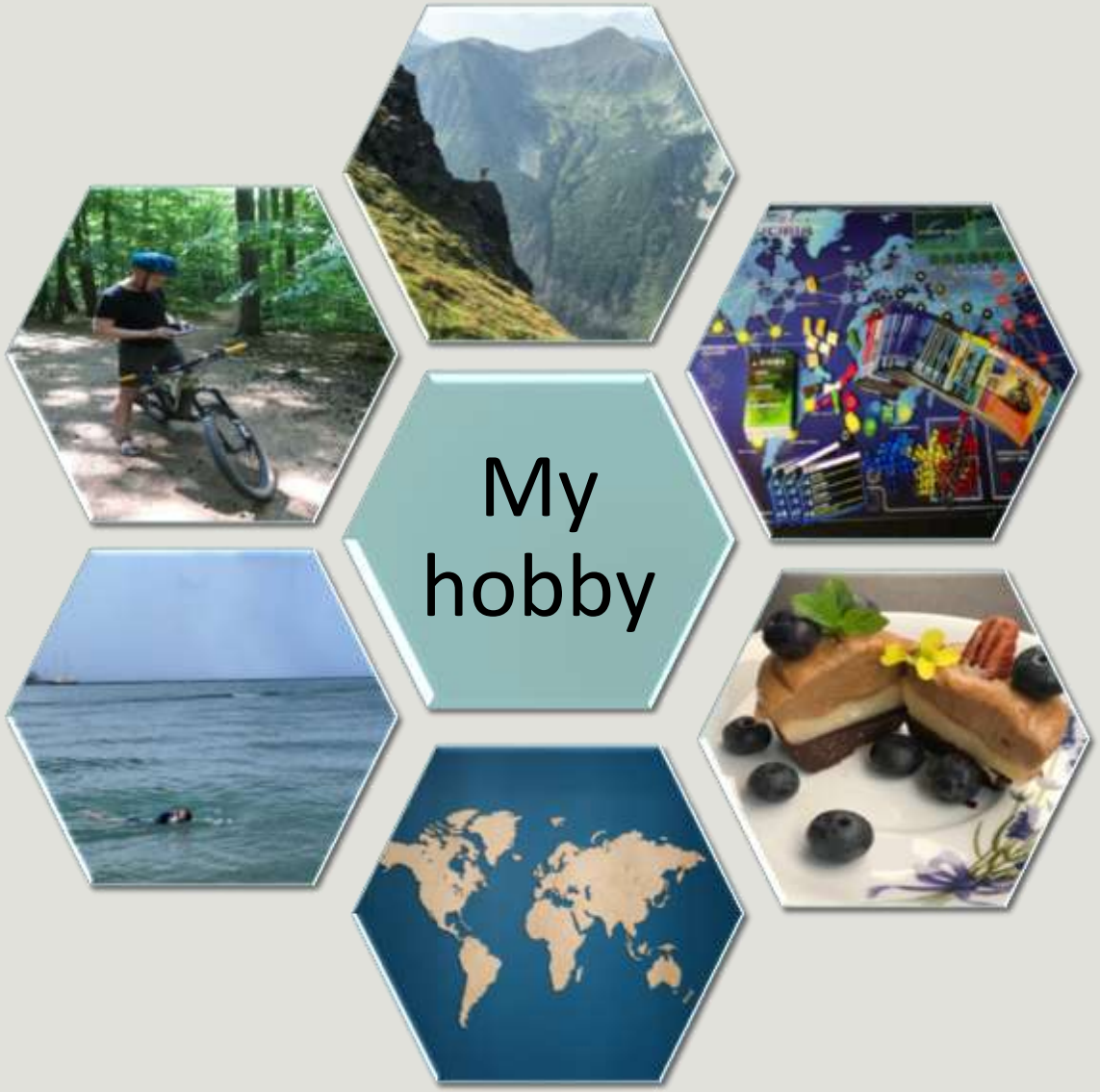
15 minutes

it is not possible to correct projects during verification

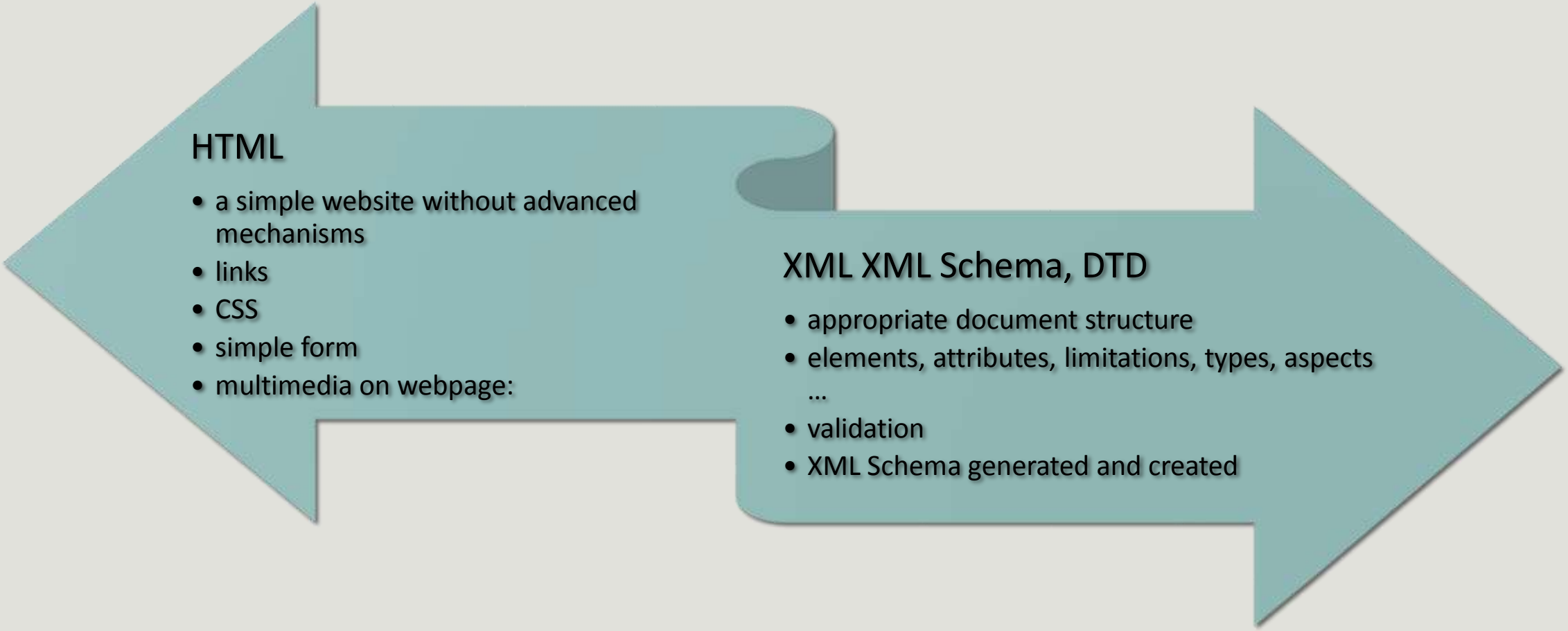
it is not possible to correct projects that have been evaluated

no comments in files

Theme of the projects



1. project HTML, XML



For the second project, **you can** (and sometimes even should) make **changes** / corrections in the XML file from the first project

2. Project XSLT

presentation and processing of an XML file

- XSLT
  - 2 different transformation for the same XML file
    - different graphic form and content
    - various xslt (not just css)

XML structure transformation (XSLT)

- XML → XML

Project – assessment method

detailed requirements, score

Detailed requirements:

In the XML Schema file, declare and use:

- at least 6 definitions of global complex types **(1,6 pts)**
- at least 5 definitions of global simple types **(1,6 pts)**
- at least 2 definitions of local complex types **(0,8 pts)**
- at least 2 definitions of local simple types **(0,8 pts)**
- using different order indicators (choice, sequence, all), mixed content models **(0,4 pts)**
- at least one definition of a group (of elements or attributes) **(0,4 pts)**

Select example errors in schemas:

- validation errors XML(the file will not validate) (**up to -10 pts**)
- trivial definition of a simple type (e.g. a simple type being a simple string type) (**-2 pts**)
- repetition of type definitions (multiple definitions of the same types) (**-2 pts**)

Important notice

The final number of points for the project depends on the answers given during project submission

e-mail

wszwoch@eti.pg.edu.pl

H&H mail subject

Literature

www.w3schools.com

www.w3.org

www.microsoftvirtualacademy.com

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