



UNIVERSITY OF SARAJEVO



Tempus



Education and Culture



Welcome introduction

**Development of Master Program in
Industrial Ecology**

WORKSHOP – Neum, May 28-31, 2007

**R. Musemić, Reference Team Leader
Faculty of Mechanical Engineering Sarajevo**



Development of Master Program in Industrial Ecology Neum, May 28-31, 2007

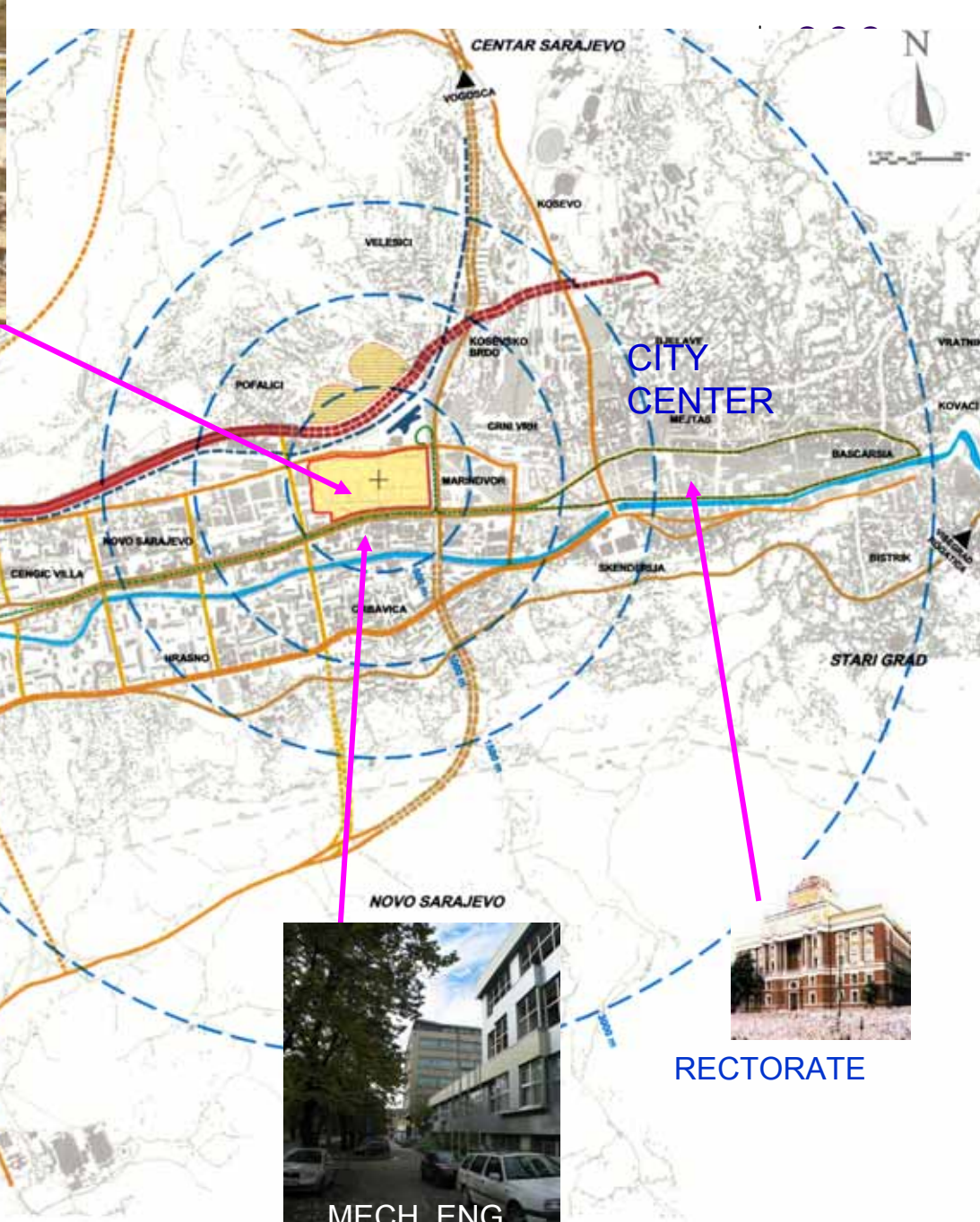
*Where
we
are?*



UNIVERSITY CAMPUS



Old, old



airport

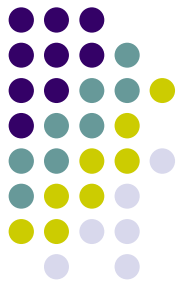


MECH. ENG. FACULTY



RECTORATE

Development of Master Program in Industrial Ecology Neum, May 28-31, 2007



Project partners from Bosnia and Herzegovina

- University of Sarajevo-Mechanical Engineering Faculty (**US-MEF**)
- University of Tuzla-Mechanical Engineering Faculty (UT-MEF)
- University of Mostar (West)-Faculty of Mechanical Engineering and Computing (SM-MEF)
- Chamber of Commerce – Federation of B&H

Development of Master Program in Industrial Ecology Neum, May 28-31, 2007



- **Project Team – B&H**

1. Ass. Prof. Šefko Šikalo, PhD – MEF-SA –
Coordinator Leader of B&H members,
Head of Chair for Process Engineering and
Environment



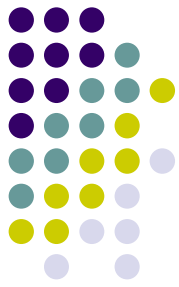


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- **Project Team – B&H**
- 2. Prof. dr. Izet Smajević – US-MEF, State Enterprise “Elektroprivreda” BiH, Sarajevo, Head of Investment and Development Division





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- **Project Team – B&H**
- 3. Prof. dr. Aleksandar Knežević – US-MEF, Sarajevo, Head of REIC, CETEOR – agencies which are dealing with environmental issues





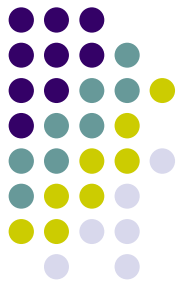
Development of Master Program in Industrial Ecology Neum, May 28-31, 2007

- **Project Team – B&H**
- 4. Prof. dr. Ejub Džaferović – US-MEF, next Dean, The coordinator of Tempus JEP Project “Master Program in Sustainable Engineering”

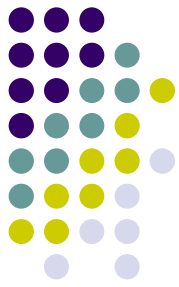


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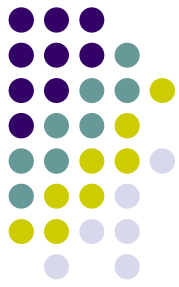
- **Project Team – B&H**
5. Prof. dr. Sulejman Redžić – US-Faculty of Science, Biology Dept., Head of the Center for Ecology
 6. Prof. Dr. Mujo Hebibović, US-Faculty of Electrical Engineering, Vice-Dean,



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- **Project Team – B&H**
- 7. Prof. Dr. Sabit Begić – UT- Faculty of Technology, Tuzla

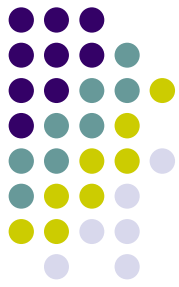




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- **Project Team – B&H**
- 8. Prof. Dr. Sead Delalić – UT- Mechanical Engineering Faculty, Tuzla





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- **Project Team – B&H**

9. Assist. Prof. Adisa Vučina, PhD – SM-
Faculty of Mechanical Engineering and
Computing, West Mostar



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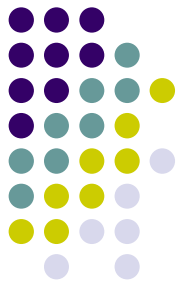
- **Project Team – B&H**

10. Assist. Prof. Zora Pilić, PhD – SM- Faculty of Science, Chemistry Dept, West Mostar



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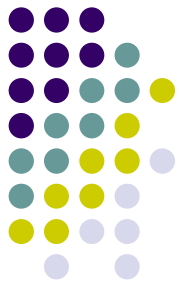


- **Project Team – B&H**

11. Dr. Ibrahim Busuladžić – Sarajevo Gas,
The gas supply and gas system maintain, -
Company, Sarajevo



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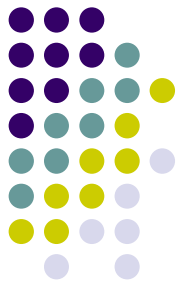
- **Project Team – B&H**

12. Dr. Aida Šapčanin, Ass. Teacher US-
Faculty of Pharmacy, Chemistry Dept.



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- **Project Team – B&H**

13. Assist. Prof. Maida Čohodar,
PhD, US-MEF



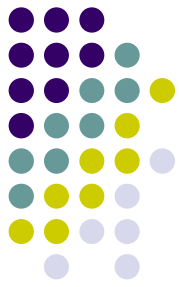
15. Ass. Azrudin Husika, US-MEF,
Dept. Process Engineering and
Environment

14. Ass. Teacher Nijaz
Delalić, US-MEF, Dept.
Process Engineering
and Environment



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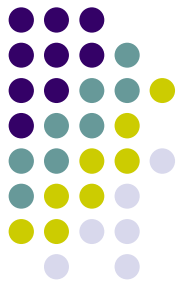
- **Project Team – B&H**

16. Prof. dr. Rajfa Musemić – US-MEF, Head of the Chair for Math. & Physics, Sarajevo



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Reference Team:

- Rajfa Musemić
- Prof. Dr. Anto Mišković, SM- Mechanical and Computation Engineering Faculty
- Salko Ćosić, MSc, Teaching Ass., UT-MEF
- Nafija Šehić-Mušić, MSc, Chamber of Economy, Federation B&H
- Dr. Ante Rezić, Company Aluminij dd Mostar
- Rasim Pirić, MSc, Rudarski institut, Tuzla

Development of Master Program in Industrial Ecology

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Individual expert:

- Academic prof. dr. Kemal Hanjalić, US-MEF,
At present - University of Roma, Italy



University of Sarajevo

- Established 1949 – the biggest University in Bosnia and Herzegovina**

- Balanced range of academic and professional training courses in the following sciences:**
 - **social**
 - **humanities**
 - **natural**
 - **technical**
 - **medical**

- 55.000 students, including full-time, part-time and foreign students**

- 1.640 professors, associates and lecturers**

- 890 administrative and technical staff**

University of Sarajevo

- ❖ **18 Teaching and Research Faculties**
- ❖ **3 Academies of arts**
- ❖ **2 Colleges**
- ❖ **4 University Institutes**
- ❖ **3 University Centres**



University of Sarajevo

BOLOGNA PROCESS

- 3 cycle studies and ECTS starting in the accademic year 2005 / 2006
- 7000 students enrolled
- Prevailing system 3 + 2 + 3
- The University enters the phase of external evaluation of the new curricula and programmes of the faculties and academies

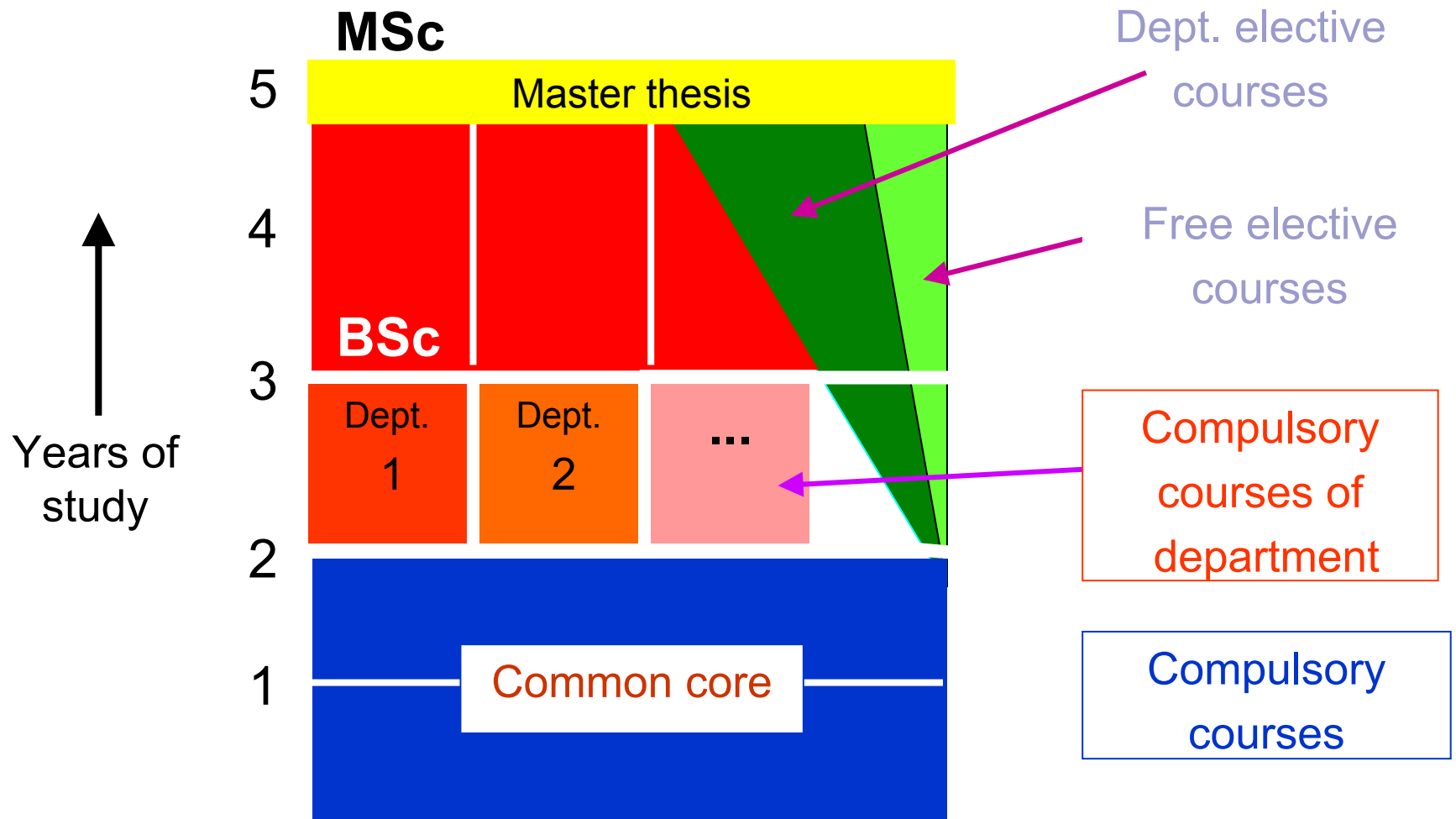
Main principles

- ❑ The average number of **courses** per semester is **6**, with average number of **contact hours** **25**.
- ❑ The concept of study includes the **continual student and lecturer work** during semesters (lectures, exercises, seminars, laboratories, projects, pre-exams, etc.).
- ❑ It is recommended that student may **finish all obligations about courses during the semester** or closely after finishing it.
- ❑ **Replacement one final exam** (hard and long) with a number of pre-exams, seminars, projects etc., during the semesters.

THE COMMON PART OF STUDY

- The first **two years** of study are the common part of study (core) for all students of Mechanical Engineering Faculty
- Basic knowledge from the **fundamental disciplines**: mathematic, physic, mechanics, materials, electro-technique, informatics, etc
- The purpose of this basic part of study is preparing for applied courses and **base for master program**
- After finishing the basic part of study, students may continue the study on one of departments

STUDY STRUCTURE



Year	Semester							Hours / week	Cumulative ECTS
MSc V	10	MASTER THESIS							300
	9					Elective course		25	270
IV	8					Elective courses		25	240
	7						Elective course	25	210
BSc III	6					Elective courses		25	180
	5						Elective course	25	150
II	4	Business economics and organisation (4)	Mechanics IV (4)	Fluid mechanic I (5)	Machine Elements II (4)	Numerical methods in engineering (4)	Heat and mass transfer I (3) / Chemistry (3) (td)	25	120
	3	Mathematics III (6)	Mechanics III (4)	Engineering thermodynamics I (4)	Machine Elements I (4)	Programming (4)	Basic of measurement and data proc. (4)	26	90
I	2	Mathematics II (6)	Mechanics II (5)	Physics II (4)	Technical documentation and CAD (6)	Electrotechnic (3)	Material sc.II (2) Wood science I (td) (4)	26	60
	1	Mathematics I (7)	Mechanics I (4)	Physics I (4)	Material science I (4)	Manufacturing technologies (4)	Sport *	25	30
		1	2	3	4	5	6		

3th YEAR OF STUDY

- Department for mechanical production engineering
- Department for industrial engineering and management
- Department for Energetic, Process Technique and Environment Engineering with modules:
 - Energetic
 - Process Technique
 - Heating, Ventilating and Air Conditions
 - Environment Engineering (new)
- Department for wood technology
- Department for IC Engines and Vehicles – MMV
- Department for Defence Technologies
- Department for Mechanical Design (new)