

OCCUPATIONAL HEALTH SCHOOLS IN SEE: CROATIA



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**EASOM Summer School:
OCCUPATIONAL HEALTH CONTINUING MEDICAL EDUCATION
– From Need to Competence Assessment**

Beograd, August 26th-29th, 2004

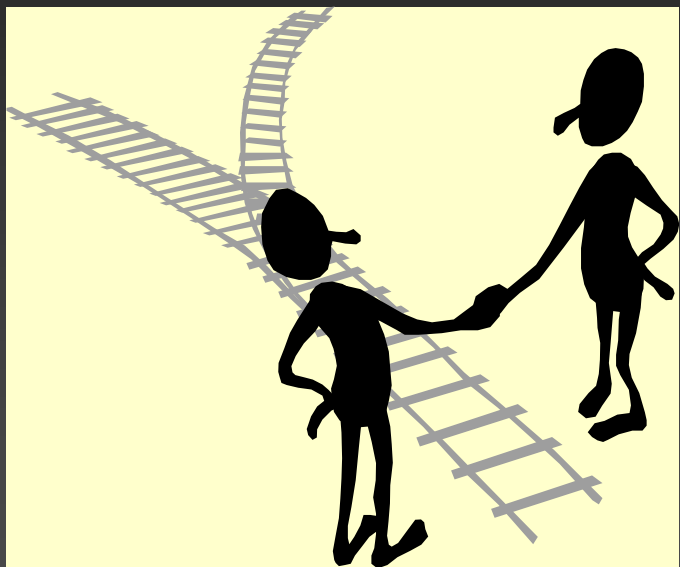
Croatia:



- Since 1949/50. Postgraduate study in Occupational Health has been held in “Andrija Štampar” School of Public Health;
- Since 1955.: 57 doctoral theses and 110 master’s theses have been made.



General aspects of training program



- Harmonization process that followed EU directives,
- Achieving required criteria:
 - Condition for acknowledging certificates and
 - specialist qualifications within the EU.



Postgraduate study: OCCUPATIONAL AND SPORTS MEDICINE

- Duration: 1 year / 2 semesters
- Total hours 410:
Core Curriculum 324 & Electives 86
- Core Curriculum:

Lecture.....	222
Seminar.....	57
<u>Exercise.....</u>	<u>45</u>
Total:	<u>324</u>
- Electives:

Lecture.....	49
Seminar.....	31
<u>Exercise.....</u>	<u>6</u>
Total:	<u>86</u>



CORE CURRICULUM

1st SEMESTER

No	Subject	L	S	E	Σ	ECTS
1.	Occupational Diseases and Toxicology	50	32	-	82	8
2.	Sport's Medicine	55	-	15	70	8
3.	Ecological Analysis of Work Environment	15	10	15	40	4
4.	Physiology of Work and Sport	25	-	15	40	5
5.	Psychology of Work and Sport	10	5	-	15	3

2nd SEMESTER

No	Subject	P	S	V	Σ	ECTS
6.	Sport's and Recreational Medicine	14	-	-	14	3
7.	Work and Sport's Assessment	25	10	-	35	4
8.	Training Theory	28	-	-	28	5
	<u>TOTAL HOURS</u>	222	57	45	324	40



ELECTIVES

No	Subject	L	S	E	Σ	ECTS
9.	Health Hazards Arising from Technological Processes	10	15	-	25	4
10.	Chronic Diseases Occuring in Industrial Workers and Recreational Sportsmen	13	12	-	25	5
11.	Health Care Organization	6	4	-	10	3
12.	Basic ICT Skills	10	-	6	16	4
13.	Kinesiology	10	-	-	10	4
	<u>TOTAL HOURS</u>	49	31	6	86	20



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- Estimated number of attendants: 15 to 20 per course,
 - Professional background of the attendants limited to MDs only,
 - State Exam Certificate,
 - The title gained:
Master of Occupational and Sports Medicine.



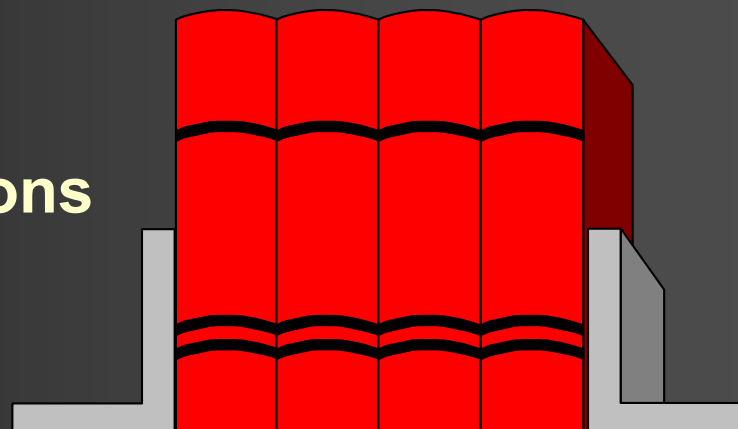
- **Since 1961. Specialization in Occupational Health**

- Postgraduate study is an obligatory and integral part of the four years lasting vocational training-
 - specialization in Occupational and Sports Medicine



A training programme is based on:

- National rules,
- EU directives,
- UEMS recommendations



- A trainee specialist must complete
4 years specialist training programme,
- Postgraduate study is an obligatory and integral part: 410 hours
- The chief of training:
 - accredited specialist in occupational medicine:
 - has been practising OM for at least 5 years,
 - recognized by the Ministry of health.



Knowledge, skills, competences

- A trainee specialist is involved in:
 - Clinical care relevant to occupational medicine,
 - Practical risk assessment in the workplace,
 - training for conducting a scientific investigation.



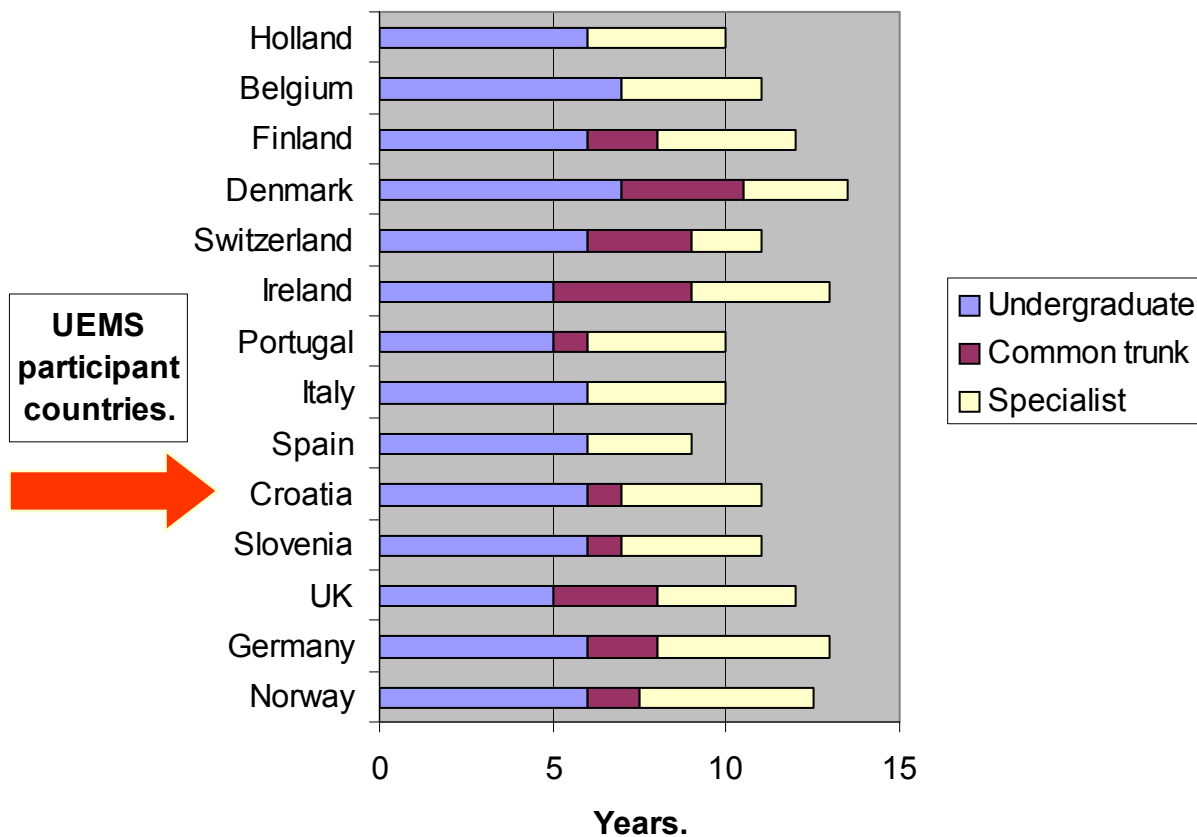
A specialization in OCCUPATIONAL AND SPORTS MEDICINE

Duration: 48 months = 4 years

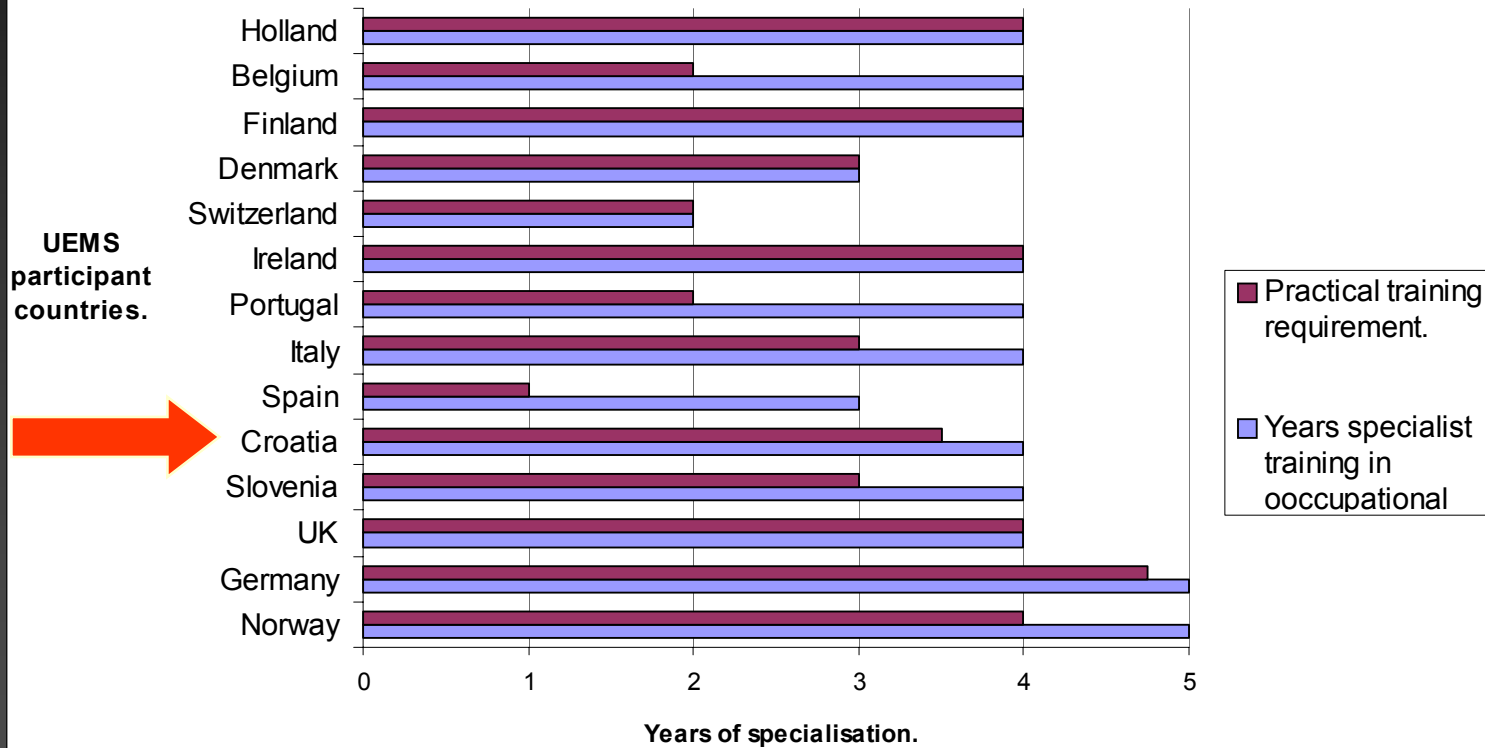
Introduction	6 months
Postgraduate education	6 months
Practical training	32 months
Recreation	4 months



Years of medical training to specialise in occupational medicine: undergraduate, postgraduate clinical 'common trunk' and specialist.



**Specialisation in occupational medicine (years);
constituent practical training and theory requirements.**



Guidelines: Workshop

The Future of Occupational Medicine in Europe,

Barcelona, 13-16th September 2002

Training is focused on how to:

- initiate health promotion activities,
- advise companies on occupational health, safety, and hygiene,
- participate in and guide the process of formulating health, environmental and safety policy,
- collaborating in providing information, training and education in the field of occupational health and safety,
- participate in workplace health promotion programmes and
- learn how to work as part of a multidisciplinary service.



Postgraduate study: ENVIRONMENTAL AND OCCUPATIONAL HEALTH

- **Duration: 2 years/ 4 semesters**
- **Total hours: 814**
 - Core Curriculum: 494
 - Electives: 320
- **3 tracks:**
 - MD track
 - Management track
 - Natural science track



COMMON CORE CURRICULUM

No	Compulsory modules	ECTS
1.	Health Care Systems	3
2.	Health and Social Policies	2
3.	Health Ethics and Human Rights	2
4.	Basic Epidemiological Methods	2
5.	Health Statistics	2
6.	Environment and Health	3
SPECIFIC CORE CURRICULUM		
1.	Risk Assessment, Management and Communications	5
2.	Occupational Hygiene and Air Pollution	4
3.	Introduction to OE Physiology and Psychology	4
4.	Rural Health	4
5.	Occupational and Environmental Diseases	4
6.	Occupational and Environmental Toxicology	5
<u>TOTAL</u>		40



RECOMANDED ELECTIVES MODULES in OH

		ECTS
1.	Work Related Injuries	4
2.	Occupational Injuries and Ergonomics	4
3.	Health Surveillance, Work Ability Assessment	4
4.	Gene Environment Interaction	4
5.	Biotechnology Methods in Occupational and Living Environmental Protection	4
6.	Laboratory Techniques in Occupational and Living Environment Evaluation	4
7.	Public Relations and Advocacy in Environmental and Occupational Health	4
8.	Technology and Drug Management	4



- Admission requirements- students with degree in:
 - medicine, public health, engineering, nursing,
 - natural sciences (veterinarians, biologist, chemists, pharmacists, ecologist, biological antropologist),
 - social sciences (management, law and policy making, geography, urban planning and social work),
 - economics, history, social anthropology, and
 - professionals already working in specific field who need further training in environmental and occupational health.

- The title gained:

Master in Environmental and Occupational Health.



Postgraduate study: ENVIRONMENTAL AND OCCUPATIONAL HEALTH

- **Organised by:**
 - **Andrija Stampar School of Public Health,
University of Zagreb, Croatia with**
- **collaboration of academic institutions from
participating countries of SEE:**
 - **Macedonia,**
 - **Serbia and Montenegro,**
 - **Bosnia and Herzegovina, and**
- **endorsement and co-partnership of the
University of Bari.**



Postgraduate study: ENVIRONMENTAL AND OCCUPATIONAL HEALTH

- ◆ Duration: 2 years
 - ◆ The programme has a modular structure,
 - ◆ Each module is focused on a specific topic or subject area,
 - ◆ Each module comprises 120 hours of study time: 40 contact hours plus 80 preparatory hours, and generates therefore 4 credit points.
 - ◆ Because there are 40 contact hours, the actual teaching in each module is concentrated in one week.
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Postgraduate study: ENVIRONMENTAL AND OCCUPATIONAL HEALTH

General structure of a teaching week

Monday	Tuesday	Wednesday	Thursday	Friday
Plenary teaching: Lectures	Plenary teaching: Lectures	Plenary teaching: Lectures	Plenary teaching: Lectures	Plenary study of documents
Workshops with cases and problems	Workshops with cases and problems	Site visits	Workshops with cases and problems	Case analysis Examination Evaluation
Multimedia, discussion		Multimedia, discussion		



First year - Fall

Module	Biostatistics	Epidemiology	Risk assessment, management and communication	Occupational hygiene and air pollution
Teaching time	40 hrs	40 hrs	40 hrs	40 hrs
Preparatory time	80 hrs	80 hrs	80 hrs	80 hrs

First year - Spring

Module	Introduction to occupational & environmental physiology and psychology	Rural Health	Integral environmental health of human settlements	Introduction to health policy and health systems
Teaching time	40 hrs	40 hrs	40 hrs	40 hrs
Preparatory time	80 hrs	80 hrs	80 hrs	80 hrs



Second year - Fall

Module	Environmental ethics	Occupational and environmental toxicology	Occupational and environmental diseases
Teaching time	40 hrs	40 hrs	40 hrs
Preparatory time	80 hrs	80 hrs	80 hrs



Second year - Spring MD track

Module	Work related disorders	Occupational injuries and ergonomics	Health surveillance, work ability assessment
Teaching time	40 hrs	40 hrs	40 hrs
Preparatory time	80 hrs	80 hrs	80 hrs



Second year - Spring management track

Module	Public relations and advocacy in environmental and occupational health	Health Policy	Technology and drug management
Teaching time	40 hrs	40 hrs	40 hrs
Preparatory time	80 hrs	80 hrs	80 hrs



Second year - Spring natural science track

Module	Gene environment interaction	Biotechnology methods in occupational and living environment protection	Laboratory techniques in occupational and living environment evaluation
Teaching time	40 hrs	40 hrs	40 hrs
Preparatory time	80 hrs	80 hrs	80 hrs



Second year

Module	Writing a scientific paper or a thesis
Teaching time	Through distance learning
Study time	120 hrs



Postgraduate study: **AVIATION MEDICINE**

- Duration: 1 year / 2 semesters
- Total hours 390:
Core Curriculum 300 & Electives 90

- Core Curriculum:

Lecture.....	105
Seminar.....	13
<u>Exercise.....</u>	<u>17</u>
Total:	<u>300</u>

- Electives:

Lecture.....	60
Seminar.....	120
<u>Exercise.....</u>	<u>75</u>
Total:	90



CORE CURRICULUM

1st SEMESTER

No	Subject	L	S	E	Σ	ECTS
1.	Physiology of Flying	20	10	10	40	5
2.	Psychology of Flying	10	5	5	20	3
3.	Toxicology and Health Risks in Aviation	30	10	-	40	6
4.	Medical Insurance of Flying	20	20	20	60	9

2nd SEMESTER

No	Subject	P	S	E	Σ	ECTS
5.	Health Assessment in Aviation	20	30	20	70	8
6.	Protection of Pilots	20	30	20	70	9
	<u>TOTAL HOURS</u>	120	105	75	300	40



ELECTIVES

No	Subject	L	S	E	Σ	ECTS
7.	Psychiatry	10	2	3	15	3
8.	Neurology	10	2	3	15	3
9.	Internal Medicine	20	5	5	30	6
10.	Ophtalmology	10	2	3	15	3
11.	Otorhinolaryngology	10	2	3	15	5
	<u>TOTAL HOURS</u>	60	13	17	90	20



RECOMANDED ELECTIVES of OTHER PROGRAMMES

		ECTS
1.	Medical Informatics-selected topics	2
2.	Ecological Analysis of Work Environment	4
3.	Rheumatology-selected topics	1
4.	Professional eye Diseases	1
5.	Pulmology-selected topics	1



Admission requirements- specialist or trainee in:

■ A)

- Occupational and sports medicine,
- Internal medicine,
- Otorhynolaringology,
- Surgery,
- Physical medicine,
- Neurology.

B)

- MDs working in emergency medicine,
- Family medicine specialists working in larger tourist centers.



CME

- CME <> CHAMBER
- every 6 years - licence
- 120 credits - 20 per year: courses, congress\ seminars, written materials- papers, books...
- Value of credit depends on:
 - hours
 - teachers
 - materials
 - evaluation of participants
 - evaluation of course
- payed by participants





Thanks!!

