

# Специалност “Оптометрист”, ОКС Магистър



13.01.2016

# Цел на презентацията

## ▶ Оценка на ситуацията:

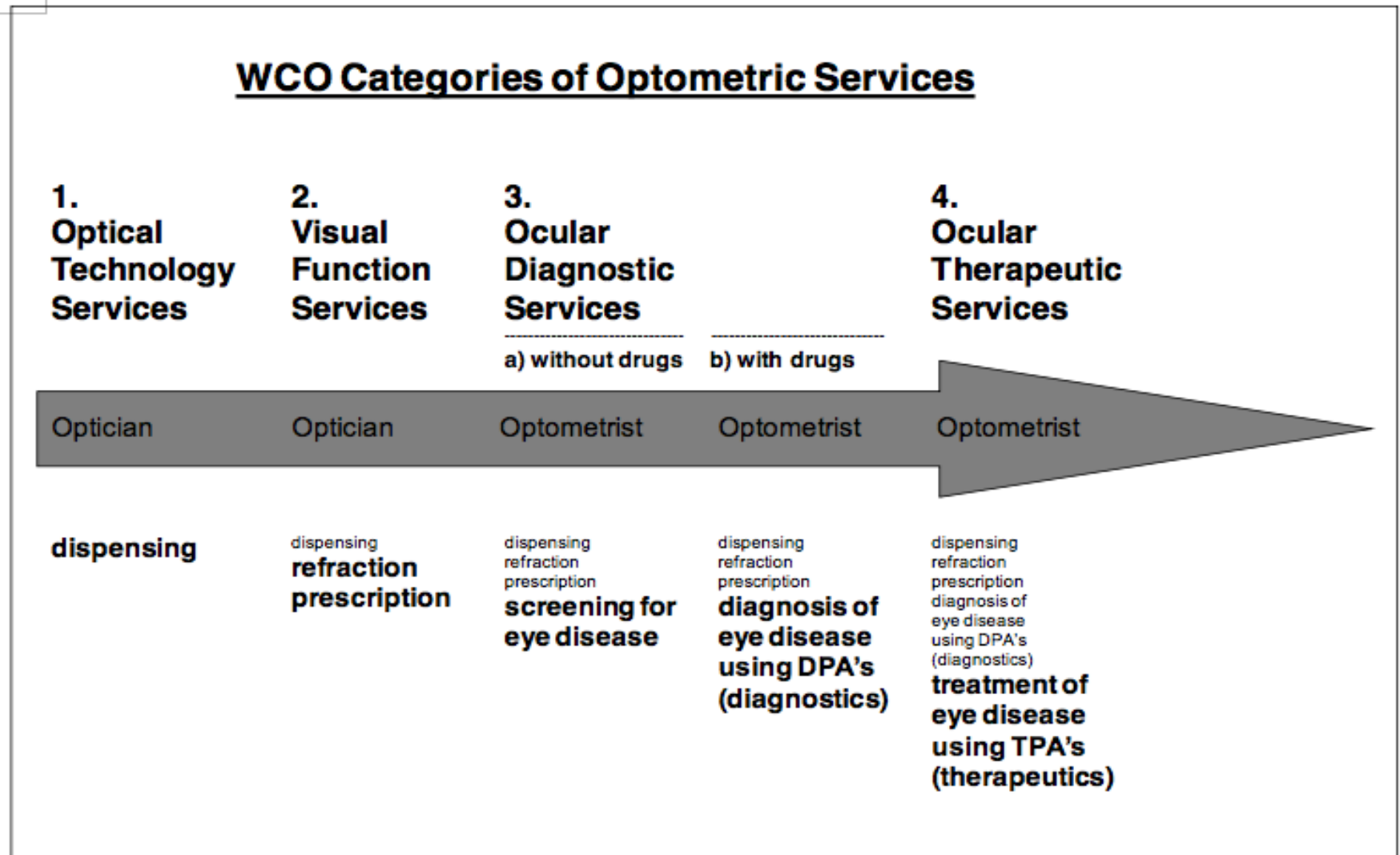
- ✓ Как е организирано обучението на оптометристи в Европейските държави?

## ▶ Има ли потребност от оптометристи в България?

# Организация на обучението на оптометристи в Европа

- ▶ World Council of optometry (WCO) - Световен съвет по оптометрия
- ▶ European council of optometry and optics ESCOO - европейски съвет по оптометрия и оптика
- ▶ Асоциация на българските оптометристи и оптици

**Figure 1: The WCO Categories of Optometric Services**



**Source:** Institute for Health Care Management and Research based on Grit [2008]

[ECOO](#) > About Optics and Optometry

## About Optics and Optometry

In general terms, optics is the science of vision and light. An optician is the person that assembles and dispenses eyeglasses or contact lenses to correct vision impairments, which are prescribed by ophthalmologists (a medical practitioner) and optometrists.

The optometry profession is defined by the World Council of Optometry (WCO) as follows:

*"Optometry is a healthcare profession that is autonomous, educated, and regulated (licensed/registered), and optometrists are the primary healthcare practitioners of the eye and visual system who provide comprehensive eye and vision care, which includes refraction and dispensing, detection/diagnosis and management of disease in the eye, and the rehabilitation of conditions of the visual system."*

Generally optometry has emerged from optics, as the education of opticians has expanded to include clinical subjects and as their scope of practice has been enlarged as a consequence. Some opticians have become optometrists.

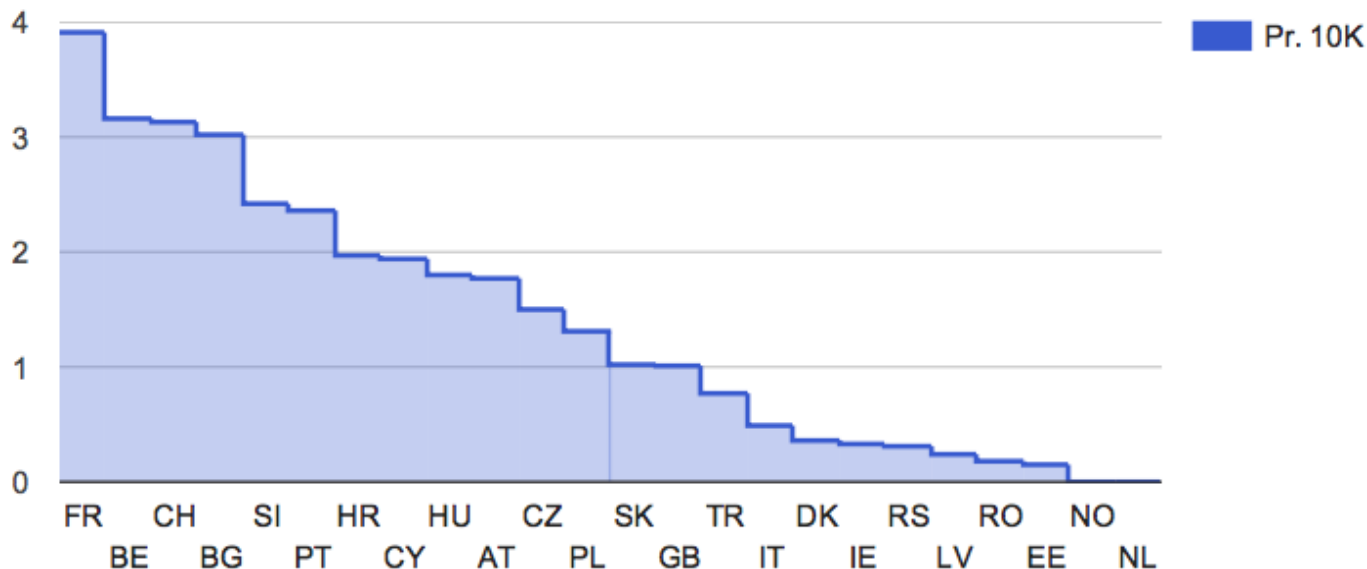
Optometry and optics are linked professions and are in some countries of Europe considered to be one profession. In other countries they reflect separate areas of professional activity and are considered as separate

Depending on the level of training and scope of practice, we can differentiate the following groups in Europe:

- ▶ dispensing opticians
- ▶ refracting opticians
- ▶ optometrists who are trained to detect pathology
- ▶ optometrists using diagnostic drugs and a limited range of therapeutic drugs



# Number of opticians per 10K of population(Pr. 10K)



3.91

France(FR)



3.16

Belgium(BE)



3.13

Switzerland(CH)



3.02

Bulgaria(BG)



2.42

Slovenia(SI)



2.36

Portugal(PT)



1.97

Croatia(HR)



1.94

Cyprus(CY)



1.8

Hungary(HU)



1.77

Austria(AT)



1.5

Czech Republic(CZ)



1.31

Poland(PL)



1.02



1.01



0.77



0.49



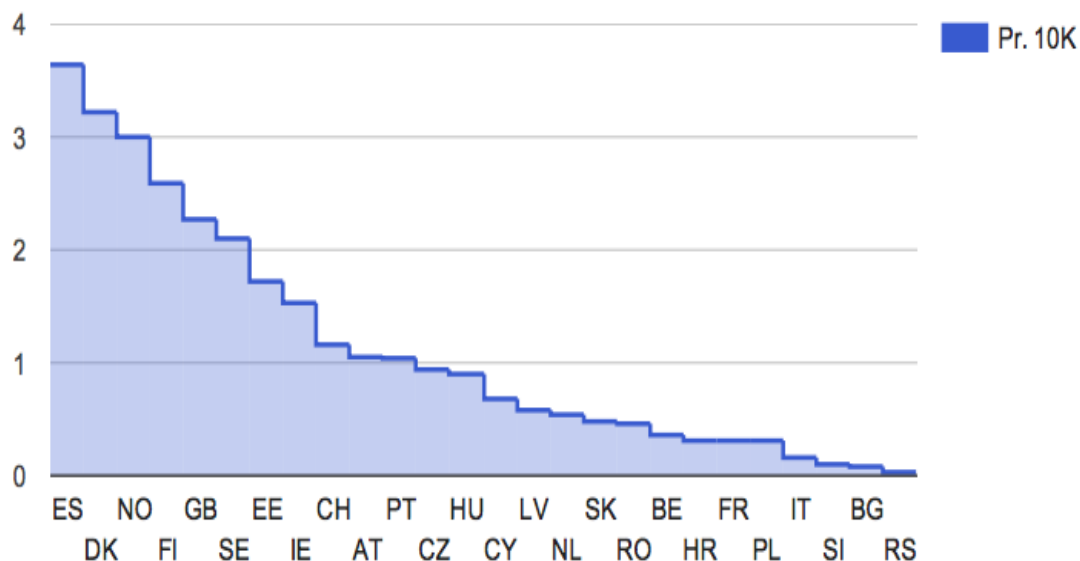
0.36



0.33



## Number of optometrists per 10K of population(Pr. 10K)



 3.64  
Spain(ES)

 3.22  
Denmark(DK)

 3  
Norway(NO)

 2.59  
Finland(FI)

 2.27  
United Kingdom(GB)

 2.1  
Sweden(SE)

 1.72  
Estonia(EE)

 1.53  
Ireland(IE)

 1.16  
Switzerland(CH)

 1.05  
Austria(AT)

 1.04  
Portugal(PT)

 0.94  
Czech Republic(CZ)

 0.9  
Hungary(HU)

 0.68  
Cyprus(CY)

 0.58  
Netherlands(NL)

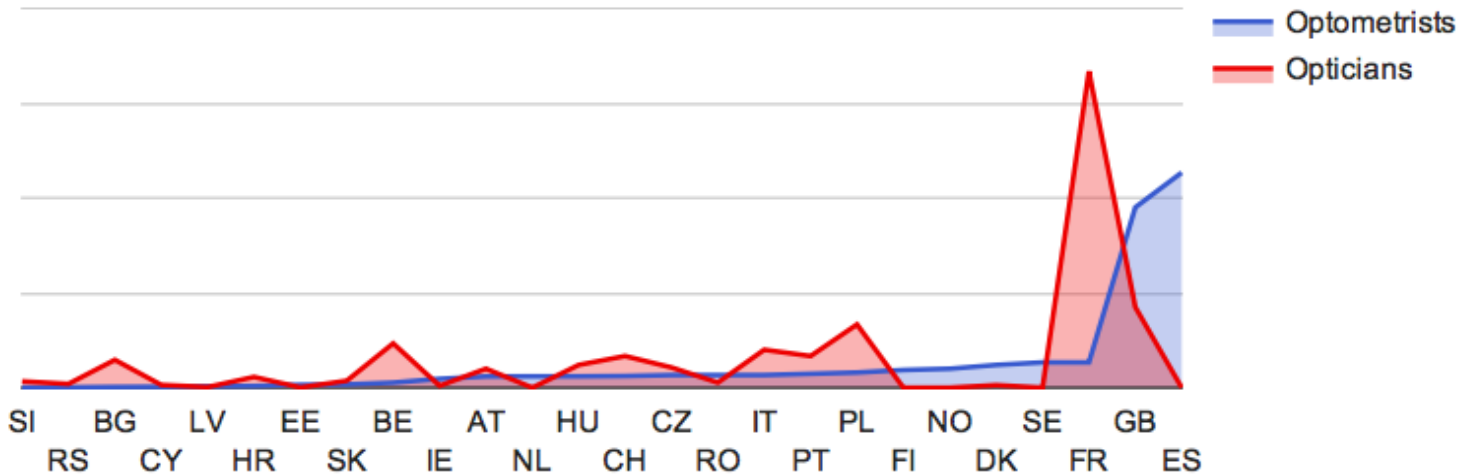
 0.54  
Romania(RO)

 0.48  
Croatia(HR)

 0.46  
Poland(PL)



# Number of Optometrists VS Opticians



Slovenia(SI)

Optometrists	Opticians
20 (4%)	500 (96%)



Serbia(RS)

Optometrists	Opticians
30 (9%)	300 (91%)



Bulgaria(BG)

Optometrists	Opticians
60 (3%)	2200 (97%)



Cyprus(CY)

77 (26%)	219 (74%)
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Latvia(LV)

120 (71%)	50 (29%)
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Croatia(HR)

135 (14%)	850 (86%)
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Estonia(EE)

230 (92%)	20 (8%)
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Slovakia(SK)

260 (32%)	550 (68%)
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Belgium(BE)

400 (10%)	3500 (90%)
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700 (82%)	150 (18%)
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890 (37%)	1500 (63%)
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900 (100%)	0 (0%)
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[ECOO](#) > [European Diploma](#) > The European Diploma in Optometry Examinations

## The European Diploma in Optometry Examinations

## The European Diploma in Optometry Accreditation Scheme

# The European Diploma in Optometry Examinations

### **Important information for the attention of all interested candidates of the European Diploma of optics and optometry**

With the aim of making the European Diploma accessible to a larger number of people and promoting its standards throughout Europe, the European-wide accreditation of interested schools has been started in some cases has already been completed successfully:

- Fachhochschule Nordwestschweiz, Hochschule für Technik, Institut für Optometrie, Olten, Switzerland – fully accredited
- Buskerud College Kongsberg, Norway – fully accredited
- Palacky University, Czech Republic – partially accredited
- Beuth University Berlin, Germany – partially accredited

The graduates of those schools that are fully accredited have the possibility to receive the European Diploma

## Part A: Optics and Optical Appliances

Subject 1: Geometrical Optics

Subject 2: Physical Optics

Subject 3: Visual Optics

Subject 4: Visual Perception (from summer 2010 this belongs to Part C and is examined in Part C, too!)

Subject 5: Optical appliances

Subject 6: Occupational optics

## Part B: Clinical Investigation and Management

Subject 7: Vision and Aging

Subject 8: Refraction

Subject 9: Low Vision

Subject 10: Ocular motility and Binocular Vision

Subject 11: Contact Lenses

Subject 12: Investigative Techniques

Subject 13: Paediatric Optometry

Subject 14: Refractive surgery

## Part C: Biological and Medical Sciences

Subject 15: Anatomy and Histology

Subject 16: Neuroscience

Subject 17: General Physiology and Biochemistry

Subject 18: General Microbiology and Immunology

Subject 19: General Pharmacology

Subject 20: Pathology and General Medical Disorders

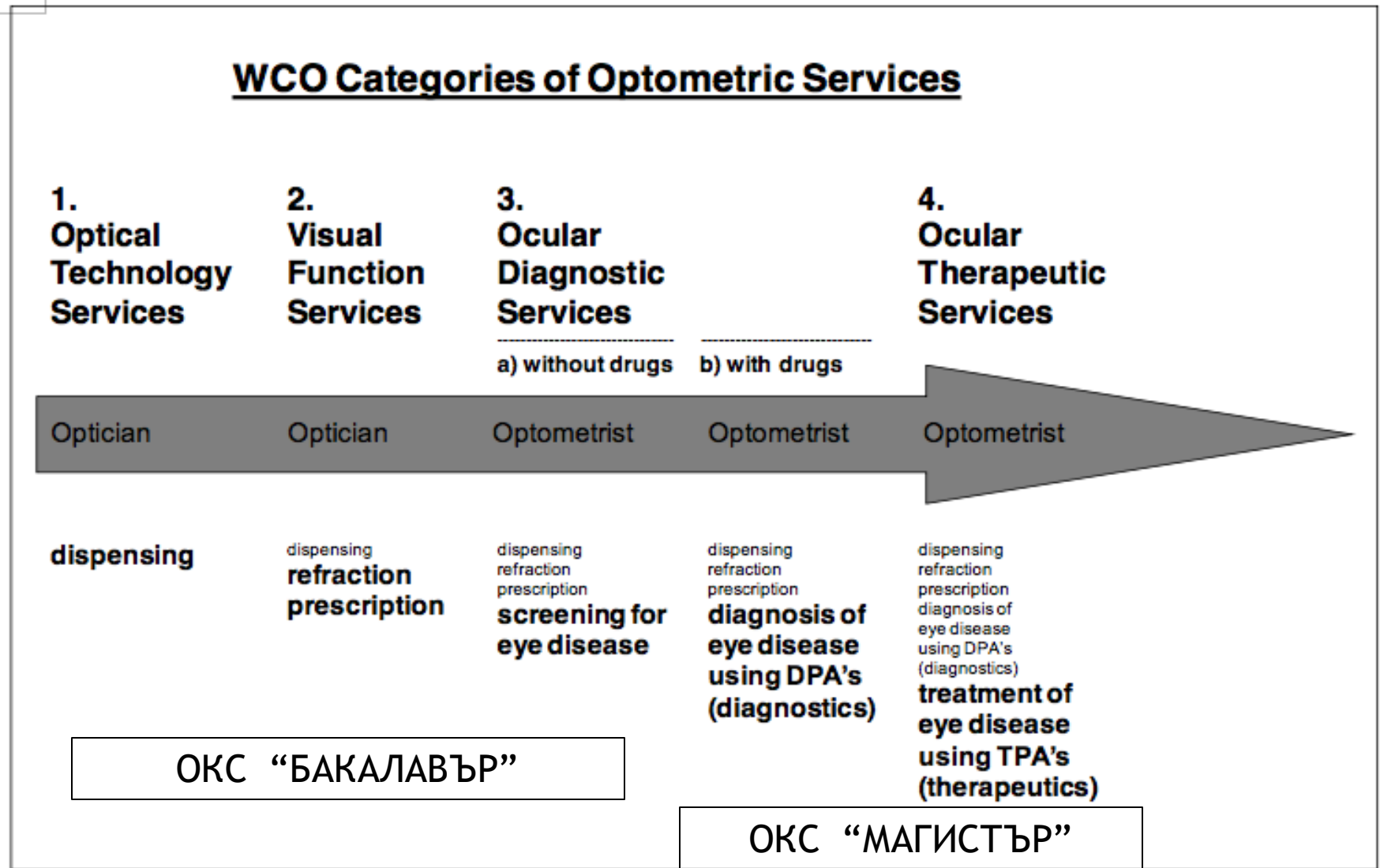
Subject 21: Epidemiology and Biostatistics

Subject 22: Ocular anatomy and Physiology

Subject 23: Ocular Pharmacology

Subject 24: Abnormal Ocular Conditions

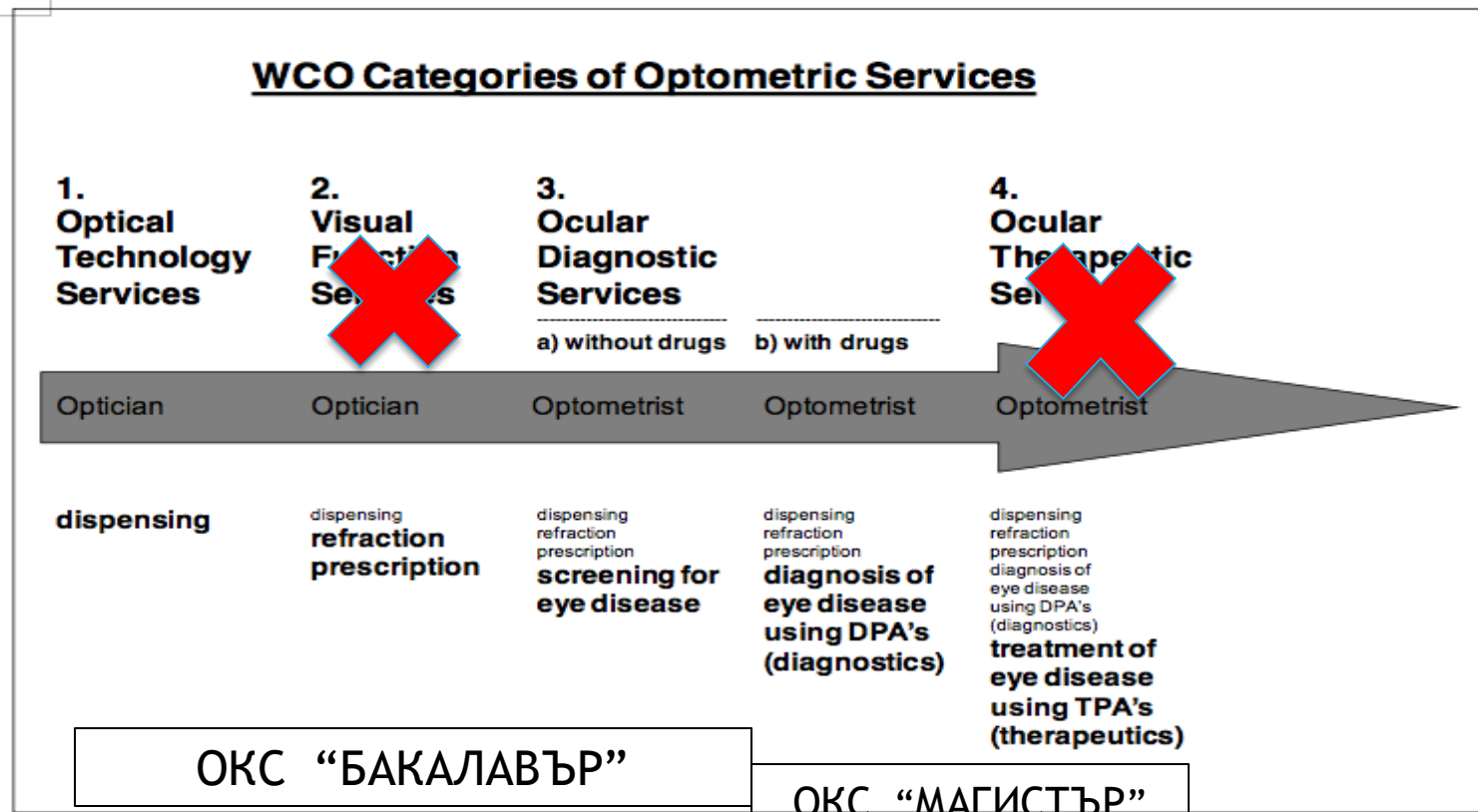
**Figure 1: The WCO Categories of Optometric Services**



**Source:** Institute for Health Care Management and Research based on Grit [2008]

# Великобритания

Figure 1: The WCO Categories of Optometric Services



Source: Institute for Health Care Management and Research based on Grit [2008]

# Обучение за оптометрист, УК

- ▶ Тригодишно обучение за ОКС “Бакалавър”, +1г. платена работа - в 8 университета;
- ▶ Четиригодишно обучение за ОКС „Магистър“ -Манчестър

Course description: Optometrists work in high street practice or hospital eye clinics, where they prescribe and dispense spectacles and contact lenses, and low vision aids; treat problems with binocular vision; work alongside ophthalmologists to monitor the treatment of ocular disease. In the last few years, however, there has been a steady increase in optometrists being involved in the primary care of patients with diseases such as diabetes and glaucoma.

Дисциплини: Личностно и проф. развитие; Геометрична оптика; Физическа оптика, Анатомия на окото, Изследване на зрението, Зрителна неврофизиология и основи на зрителното възприятие, Физиология за оптометристи, Системи в чов. тяло, Цитология, Продажба на зрит. пом. средства; Зрителна оптика, Бинокулярно зрение, Конт. лещи, Намалено зрение, Очни болести, Новости в оптометрията.

# Великобритания

- ▶ Binocular vision
- ▶ Professional Higher Certificate in Contact Lenses
- ▶ Diabetic eye disease
- ▶ Professional Certificate in Glaucoma
- ▶ Professional Certificate in Medical Retina
- ▶ Critical Thinking in Ophthalmic Practice
- ▶ Primary Eye Care
- ▶ Paediatric Optometry
- ▶ Refractive surgery co-management
- ▶ Vision in the aged
- ▶ Professional Certificate in Low Vision

Additional supply and independent prescribing modules:

- ▶ Principles of therapeutics (module 1)
- ▶ Principles of prescribing (module 2)
- ▶ Independent prescribing (module 3)

The screenshot displays the City University London website for the Clinical Optometry course. The page features a navigation menu with options like 'Courses and Study', 'Research', 'Business Services', 'Alumni', 'International', and 'About City'. The main content area is titled 'Clinical Optometry MSc / Postgrad Diploma / Postgrad Certificate' and includes sub-sections for 'Overview', 'Content & Structure', 'Teaching & Assessment', 'Fees & Funding', and 'Careers/Further Study'. The 'Content & Structure' section is active, showing 'Course Content' with details on the length of the course (1 year for full-time, 2 years for part-time) and the course content, which focuses on enhanced clinical care and the expansion of the optometrist's role in ocular therapeutics.

# Германия

- ▶ *Augenoptikergeselle* = dispensing optician;
  - ▶ *Augenoptikermeister* (or the equivalent degrees) without a biomedical education = refracting optician;
  - ▶ *Augenoptikermeister* (or the equivalent degrees) with a biomedical education = optometrist.
- 
- ▶ *Beuth University of Applied Sciences Berlin*
  - ▶ *University of Applied Sciences Ostfalia*
  - ▶ *University of Applied Sciences Jena (also in cooperation with the ZVA Academy Knechtsteden)*
  - ▶ *University of Applied Sciences Aalen*
  - ▶ *University of Applied Sciences Munich*
  - ▶ *University of Applied Sciences Lubeck*



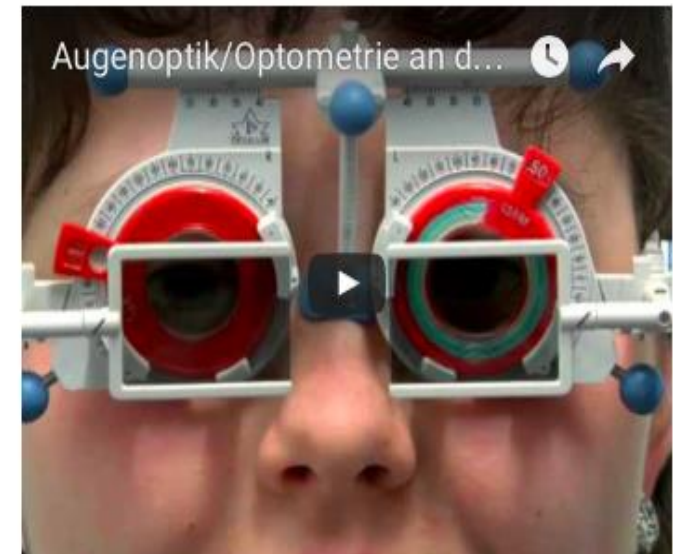


Home > Studium > Studiengänge

# Augenoptik/Optometrie

## Bachelorstudiengang am Fachbereich VII

NC:	nein
Studienbeginn:	Wintersemester
Akkreditiert:	ja
Abschluss:	Bachelor of Science
Fachsemester:	7
Vorpraktikum:	nicht erforderlich
Sonstige Voraussetzungen:	Augenoptiker/-in-Ausbildung vor Studienbeginn erforderlich
Homepage:	<a href="http://studiengang.beuth-hochschule.de/ao/">http://studiengang.beuth-hochschule.de/ao/</a>



<http://www.beuth-hochschule.de/bao>



# Das Studium

- ▶ Studieninhalte
- ▶ Praxisbezug
- ▶ Studiendauer und -abschluss
- ▶ Berufliche Perspektiven

## Studienplan

1. Semester

2.

3.

4.

5.

6.

7.

Modul	Modulname	SU SWS	Ü SWS	Cr	P/WP	FB
B01	Anatomie und Physiologie	4		5	P	VII
B02	Grundlagen der Contactlinsen-Anpassung I	4	1	5	P	VII
B03	Ophthalmoskopie und Skiaskopie	3	3	5	P	VII
B04	Physiologische Optik I	3		5	P	VII
B05	Technische Optik	4	2	5	P	VII
B06	Wahlpflichtmodul I (WP01 oder WP02)		3	5	WP	VII
	<b>Wahlpflichtmodule</b>					
WP01	Computeranwendungen in der Optometrie		3	5	WP	VII
WP02	Office Anwendungen		3	5	WP	VII

# Оценка на потребности от оптометристи в България

- ▶ Три анкетни проучвания сред:
  - ✓ офталмолози
  - ✓ студенти от специалност „Медицински оптик“
  - ✓ работещи в оптики

# Анкетно проучване сред офталмолози

## ▶ 9 попълнени анкети, от които:

- ✓ 6-ма подкрепят идеята
- ✓ 2 смятат, че няма необходимост от оптометристи и не биха работили с оптометрист;

## ▶ Мястото на оптометриста:

- ✓ 100% оптика;
- ✓ 5 от 9 в специализираната извънболнична и болнична помощ; в научни звена;

## ▶ Какви задачи могат да се поверят на оптометристи:

- ✓ Измерване на рефракция (6 от 9)
- ✓ Измерване на зрителна острота (5 от 9)
- ✓ Изписване на очила и КЛ (3 от 9)

## ▶ Какви изследвания:

- ✓ Авторефрактометрия (8 от 9)
- ✓ Тонометрия (6 от 9)
- ✓ Периметрия (4 от 9)

# Анкетно проучване сред студенти от специалност “Медицински оптик”

- ▶ От 13 завършващи студенти - 11 са участвали в анкетата;
- ▶ 10 студенти имат потребност да продължат обучението си;
- ▶ Предпочитана форма - редовна магистратура;
- ▶ Предпочитани дисциплини - всички в клиничния спектър.

# Алтернативна анкета

- ▶ 42 карти, 40% мъже, средна възраст 24.5г.
- ▶ 71% смятат, че оптометристът може да е в помощ на офталмолога

## Задачи на оптика:

1. Измерване на зрителна острота
2. Всичко, свързано с рефракция и оптична корекция

## Задачи на оптометриста:

1&2 Изписване на очила за близо и далеч

# Апаратни изследвания извършвани от:

	ОПТИК	ОПТОМЕТРИСТ
Само авторефрактометрия	74%	60%
Периметрия	26%	50%
Тонометрия	17%	17%
Оптическа кохерентна томография	12%	21%
Роговична топография	2%	10%
Всички апаратни изследвания	2%	24%

# ИЗВОДИ

- ▶ Разнообразие в Европейските страни
- ▶ Предимно с ОКС „Бакалавър“, но има и ОКС „Магистър“
- ▶ Изключително клинично съдържание на учебния план и компетенциите
- ▶ Офталмолозите не познават спецификата на работата оптометриста
- ▶ Възможно е да се очаква негативна реакция от страна на офталмолозите в ИМП

# Дисциплини от ФОЗ на МУ- Варна:

- ▶ Въведение в ЗМ;
- ▶ Интегрирани грижи в очните болести;
- ▶ Счетоводни и данъчни аспекти на оптометричната практика;
- ▶ Обща епидемиология;
- ▶ Статистика;
- ▶ Водене на пациентска документация - бази-данни;
- ▶ Методология на НИР;
- ▶ Комуникация с пациенти.