

Bachelor- und Masterstudies at the Medical Faculty University Basel



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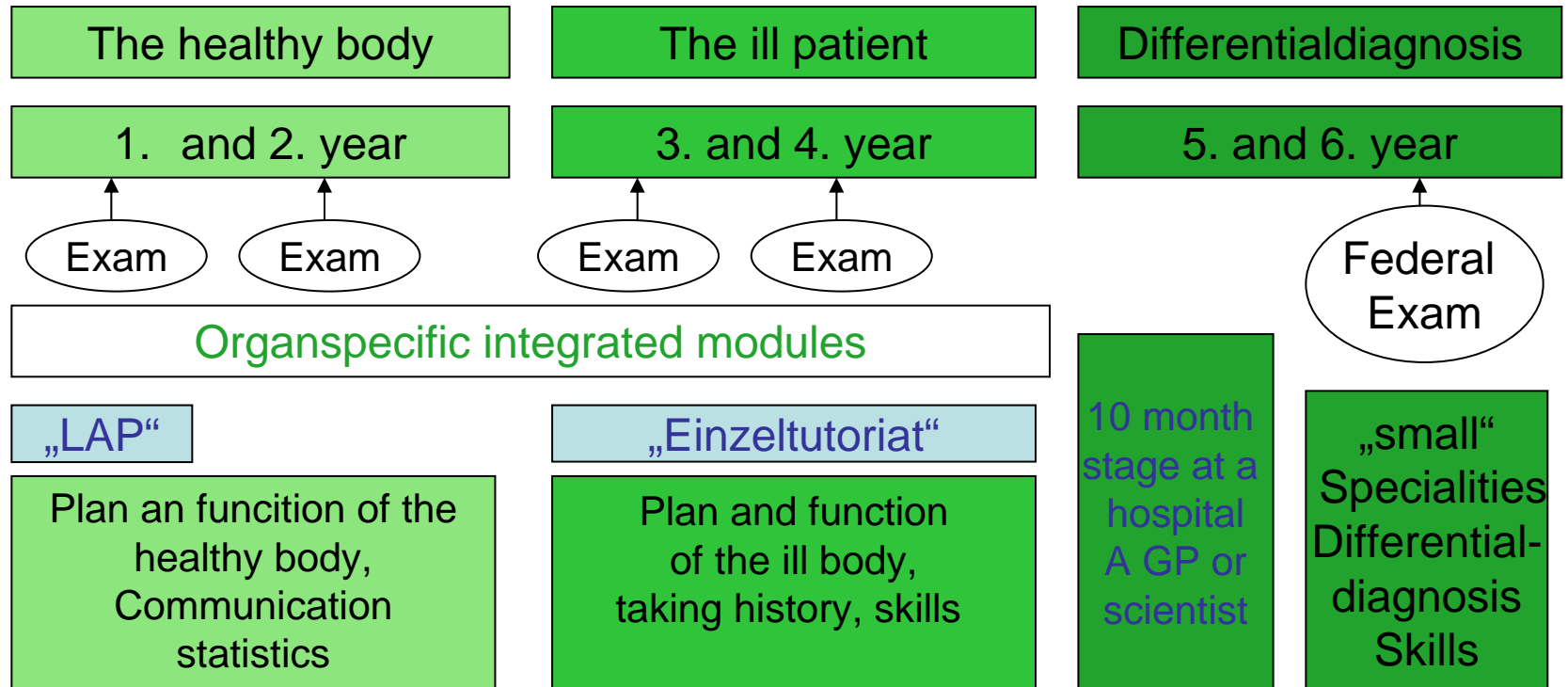
Studyreform 1996-2005

- Triggered by the changing demands and the necessity of patient-oriented medicine.
- Change of the image of an ideal medical doctor:
WHO 5* doctor:
 - care provider
 - decision maker
 - communicator
 - community leader
 - manager

Where we started from

1. Modular Curriculum with organ specific modules
2. Integration of several disciplines in each module
3. Life Long Learning, Problem based Learning
4. Training in three dimensions:
 - Knowledge
 - Skills
 - Attitude

Where we started from



Social and communicative Kompetencies, scientific basics, emergency



Why Bologna?

Decision of the Federal Government

- All curricula have to be changed till 2010
- No exception for Medicine, Dental Medicine

Bologna

Structure of the Curriculum

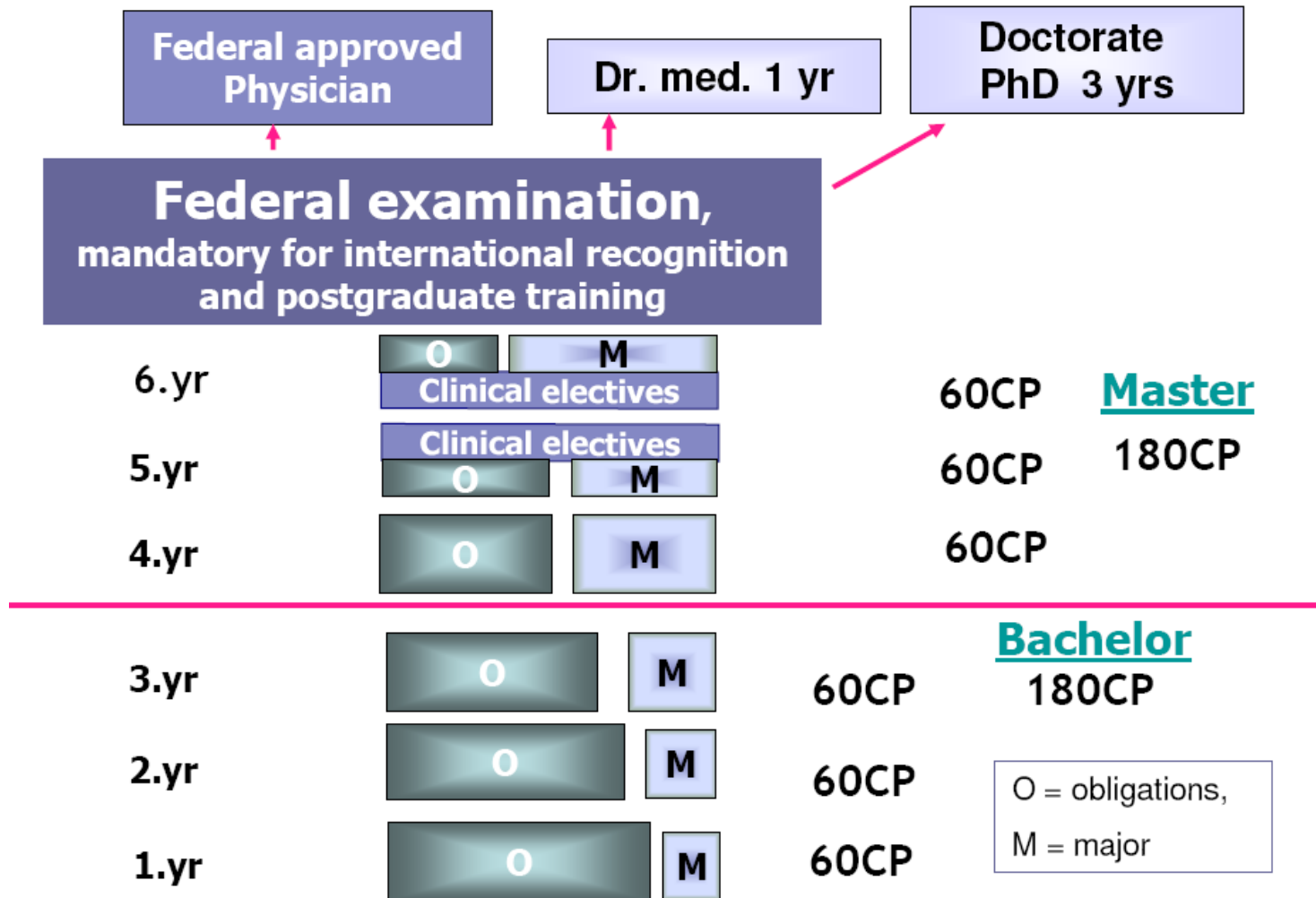
➤ 3 Cycles

- Bachelor 3 years (180 ECTS)
- Master 1.5 – 2 years (90 – 120 ECTS)
- PhD 2 - 3 years

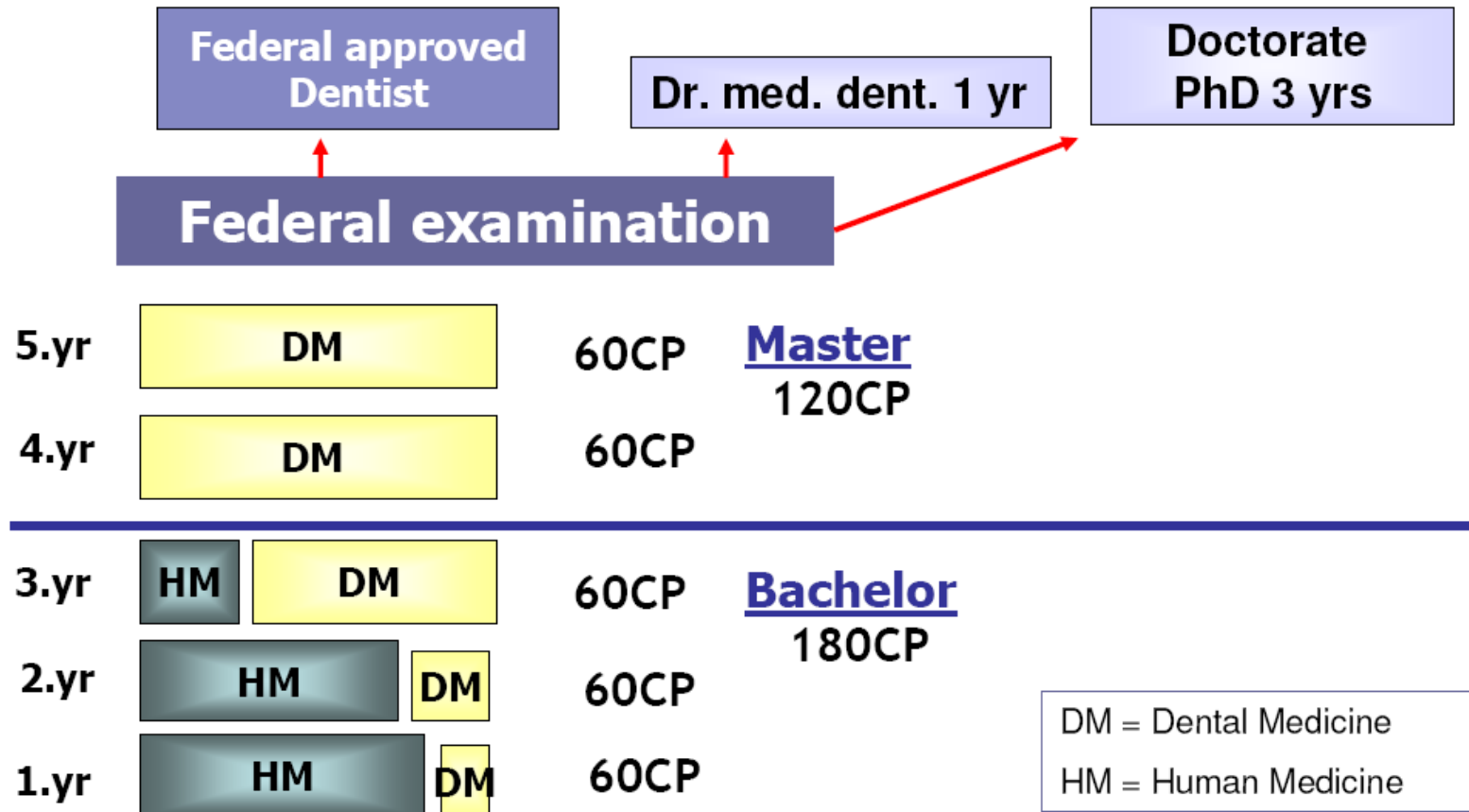
➤ „Exeption medical“

- Master 3 years 180 ECTS
- Dr. med and Dr. med. dent: 1 year

Graph 1: Bologna Model Medicine „Physician Track“



Graph 2: Bologna Model Dental Medicine



Outcome Definition Bachelor

Students have gained basic knowledge of healthy and ill individuals in organspecific integrated modules

They are able to recognize the clinical relation between symptoms and disease

They have basic knowledge of skills and scientific work

They show professional behavior in a clinical setting.

With a Bachelor Degree it is not possible to work as medical doctor.

The BA is an integrated part of the Master.

Outcome Definition Master

- Master of Medicine and Master of Dental Medicine are regulated in the Medizinalberufe Gesetz **MedBG** (law that regulates Swiss healthcare professions)
- **Operation in the Swiss Catalogue of Learning Objectives for Medicine** (www.smifk.ch)

Basic Questions

- How does our Bologna Curriculum differ from a Conventional Curriculum?

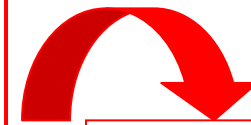
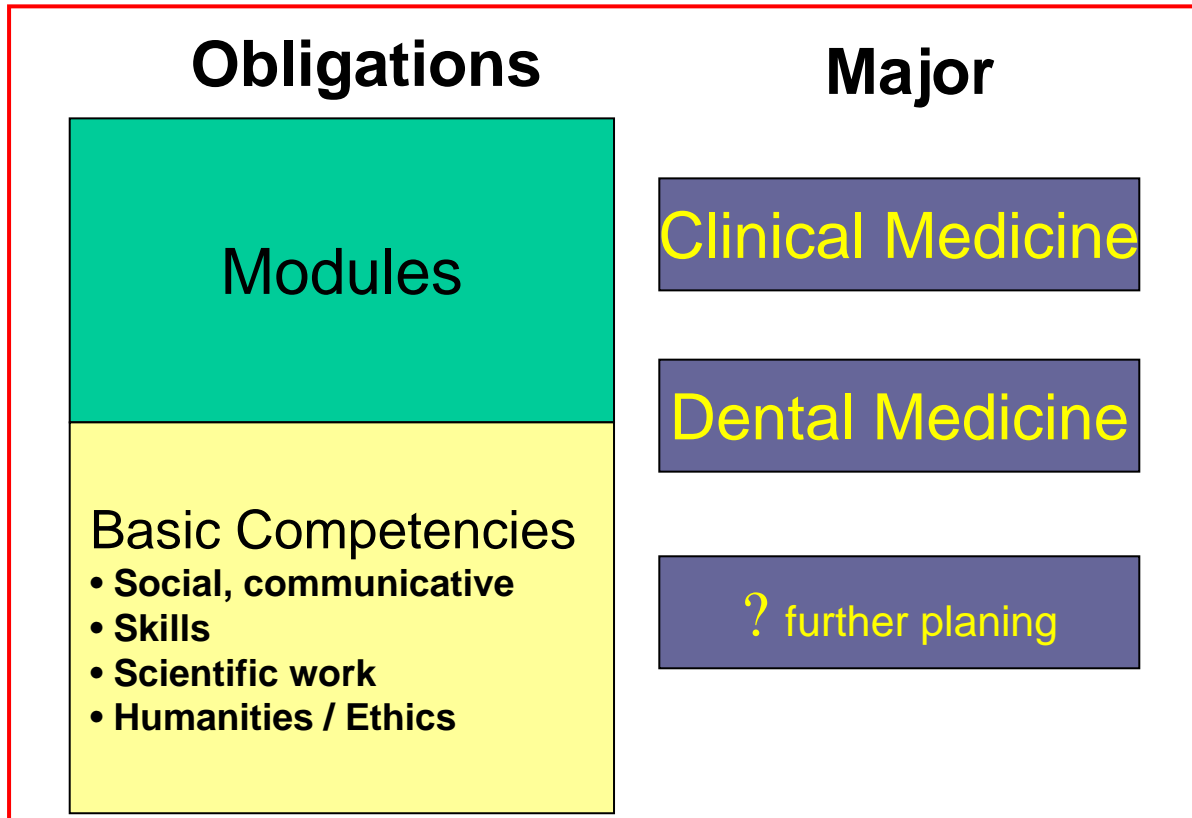
Bologna

- Student centered
- Integrated
- Diversification
- Flexible
- Not so easy to manage

Conventional

- Teacher centered
- Separated (preclinic / clinic)
- Same for all
- Rigid
- Easy to manage

Structure of the Bachelor Medizin



60 ECTS/
Year

1 ECTS=
25 to 30h stud.
workload

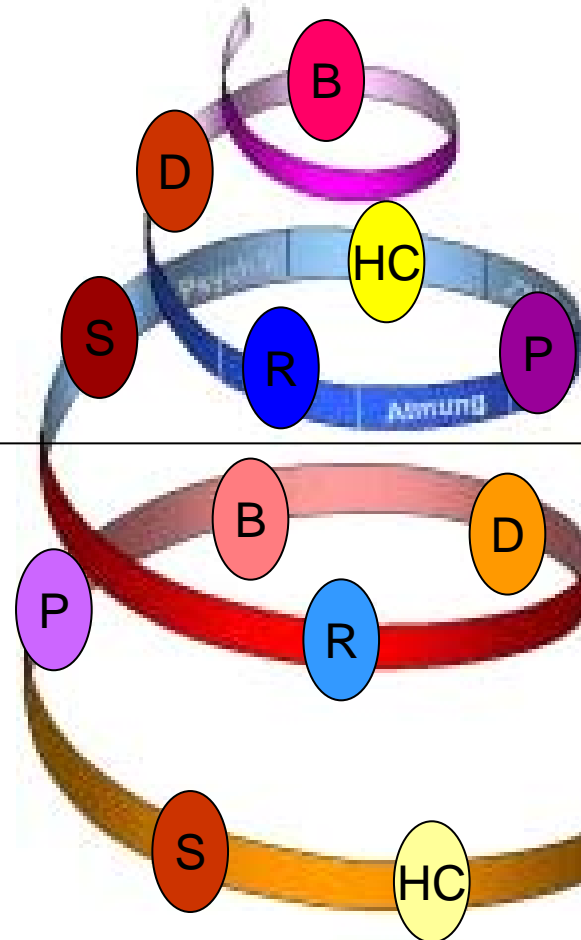
Modules – The idea behind.....

Master

4th and 5th year
Clinical reasoning,
Diagnostic,
Therapy
Differential diagnosis

Bachelor

1st to 3rd Jahr
Anatomy, Histology,
Physiology, Biochemistry
Pathophysiology



Modules - The Idea behind....

- The organspecific modules appear in the Bachelor and the same topics again in the Master
- During the **Bachelor** we put special weight on Anatomy, Physiology, Pathology und Pathophysiology, illustrades with clinical examples.
- During the Master we integrate the basic science, and put emphasis on clinicale reasoning, diagnosis, therapy and differentialdiagnosis

Principles of Module Organisation

- Modules of one organsystem in the BA and MA are an administrative entity
- in the BA the lead is taken by a basic scientist and the co-lead is taken by the clinical counterpart responsible for the integration of clinical content.
- In the MA it is vice versa.

How it looks like....

Graph 3: structure of the Bachelor and Master programme in Basle

weeks	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Semester Break	15	16	17	18	19	20	21	22	23	24	25	26	27	28 *	Start
Bachelor 1. Year	Introduction					Components of Life					KSU					Blueprints of Life					Nervous System		Locomotion						2006/07	
Bachelor 2. Year	Gastrointestinal Tract					Blood/Infection/Defense					Boundary Layers					Cardiovascular System					Respiration			Psyche/ Ethics/ Law				2007/08		
Bachelor 3. Year	Healthy-Sick-Tumor					POEM		Kidney & Urinary Passage			Endocrine Systems					Nervous System/ Sense Systems				Reproduction			Life cycles			EM			2008/09	

weeks	1	2	3	4	5	6	7	8	9	10	11	12	13	14	Semester Break	15	16	17	18	19	20	21	22	23	24	25	26	27	28 *	Start
Master 1. Year	Cardiocascular system				Endocrine Systems			Locomotion				Repiration				Boundaries		Blood/Infection/ Defense			Gastrointestinal Tract			Kidney & Urinary Passage				2009/10		
Master 2. Year	Nervous System / Sense Systems					Psyche/ Ethics/ Law					Reproduction					Scientific Competence			Clinical Electives									2010/11		
Master 3. Year	Clinical Electives															Master Thesis					EM		From Symptom to Diagnosis						2011/12	

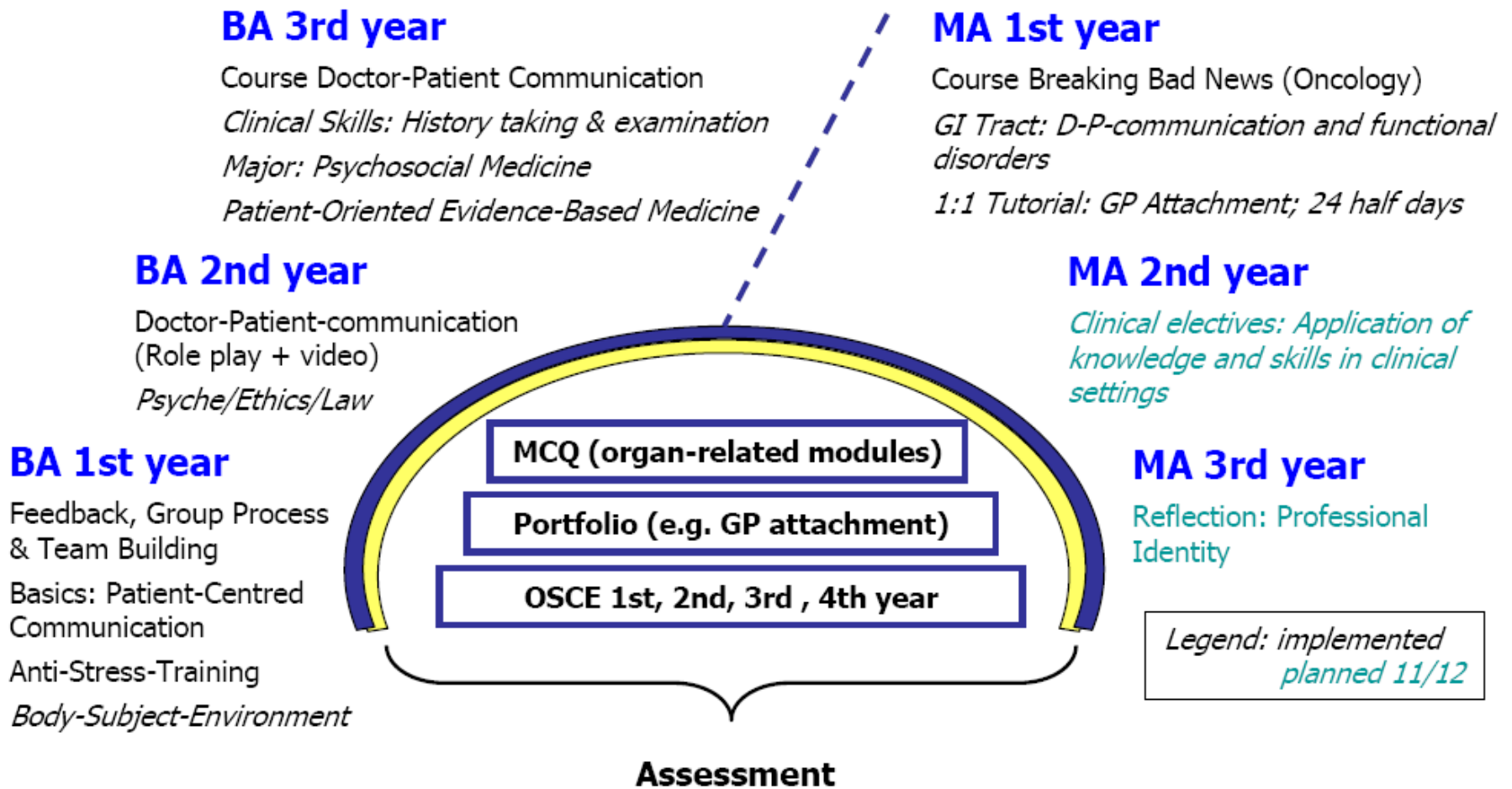
Abbr. KSU Body/Subjekt/Environment
 POEM Patient-oriented evidence-based Medicine
 EM Emergency medicine

Basic competencies (BC) and Extended Competencies (EC)

They are a continuum during BA and MA

1. Social and communicative competencies
2. Skills
3. Scientific Work
4. Humanities and Ethics

Graph 4: longitudinal curriculum “communication and social competences “



Master Clinical Medicine

- Modules Part 2 of the learning coil
- Extended competencies
- Major: „Einzeltutoriat“, social and preventiv medicine, prescription course
- Year for elecives
- Modul „ From Symptom to Diagnosis“

Year of Electives

4. and 5. semester of the MA

- 1st month mandatory: scientific work
- 3 month Surgery
- 3 month Internal Medicine
- 3 Monate free choice

Log-Book: all skills of the SLCO with signature of the tutor → 60 ECTS

The new „Eidgenössische Prüfung“

- Claimed by the Parliament → MedBG
- Condition of admission: successful finished studies of human medicine/ dental medicine in an accredited curriculum at Master level
- Organisation by the Federal Office of Health (Medizinalberufekommission)
- Format: MC + CS (clinical skills) + CBA

Dr. med. und Dr. med.dent.

CRUS Mai 2009

- **After Master of medicine / dental medicine and successful federal exam**
- **1 year scientific work**
- **Masterthesis can be the basis for further scientific work**
- **Univesities are responsible for further modalities**
- **PhD curriculum: Development ongoing**

Part 2

Bologna and the Healthcare System

Bologne survient à un moment de crise universelle dans le domaine de la santé

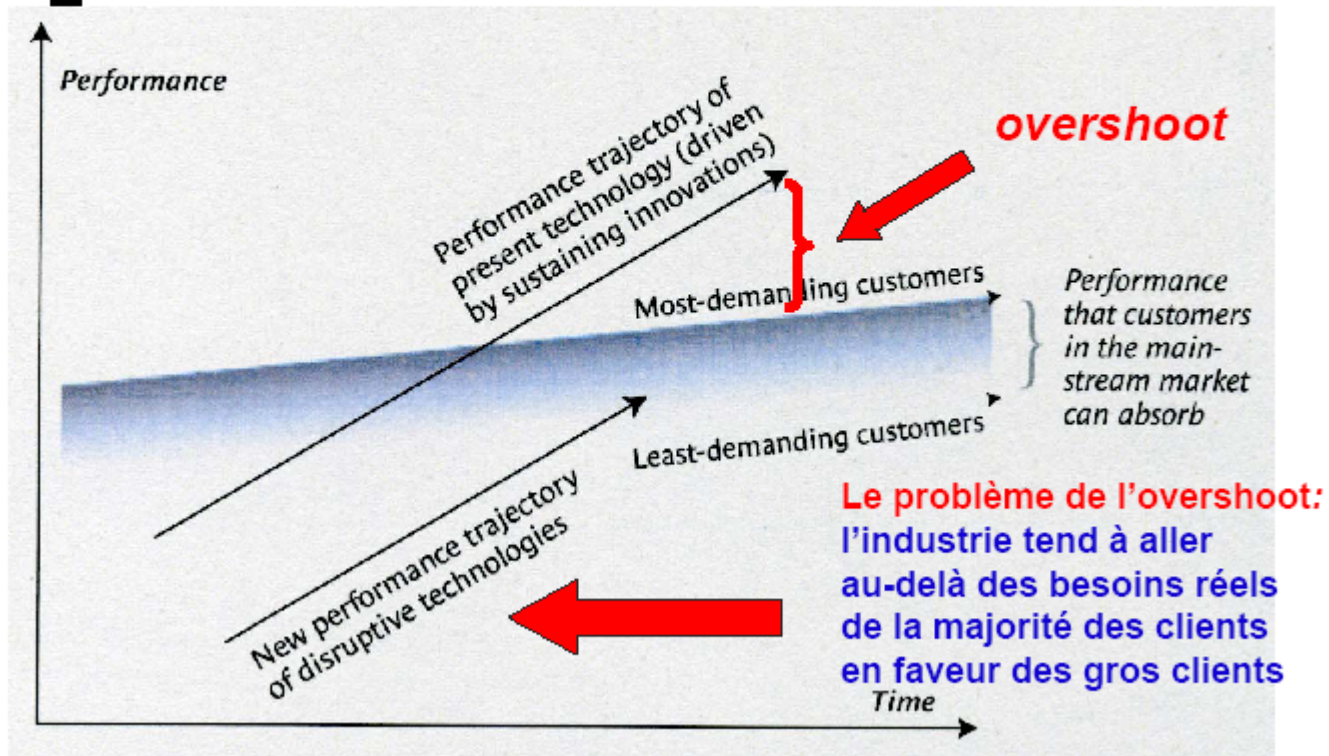
C.M. Christensen et al. *Will disruptive innovation cure health care?*
Harvard Business Review (sept-octobre 2000; revu en 2004)

- US health care industry is in crisis
- **The Symptoms**
 - Prestigious teaching hospitals lose millions of \$ every year
 - Health care delivery is convoluted, expensive, and often deeply dissatisfying to consumers
 - Managed care seems increasingly to contribute to these problems
 - Some best managed-care agencies are on the brink of insolvency

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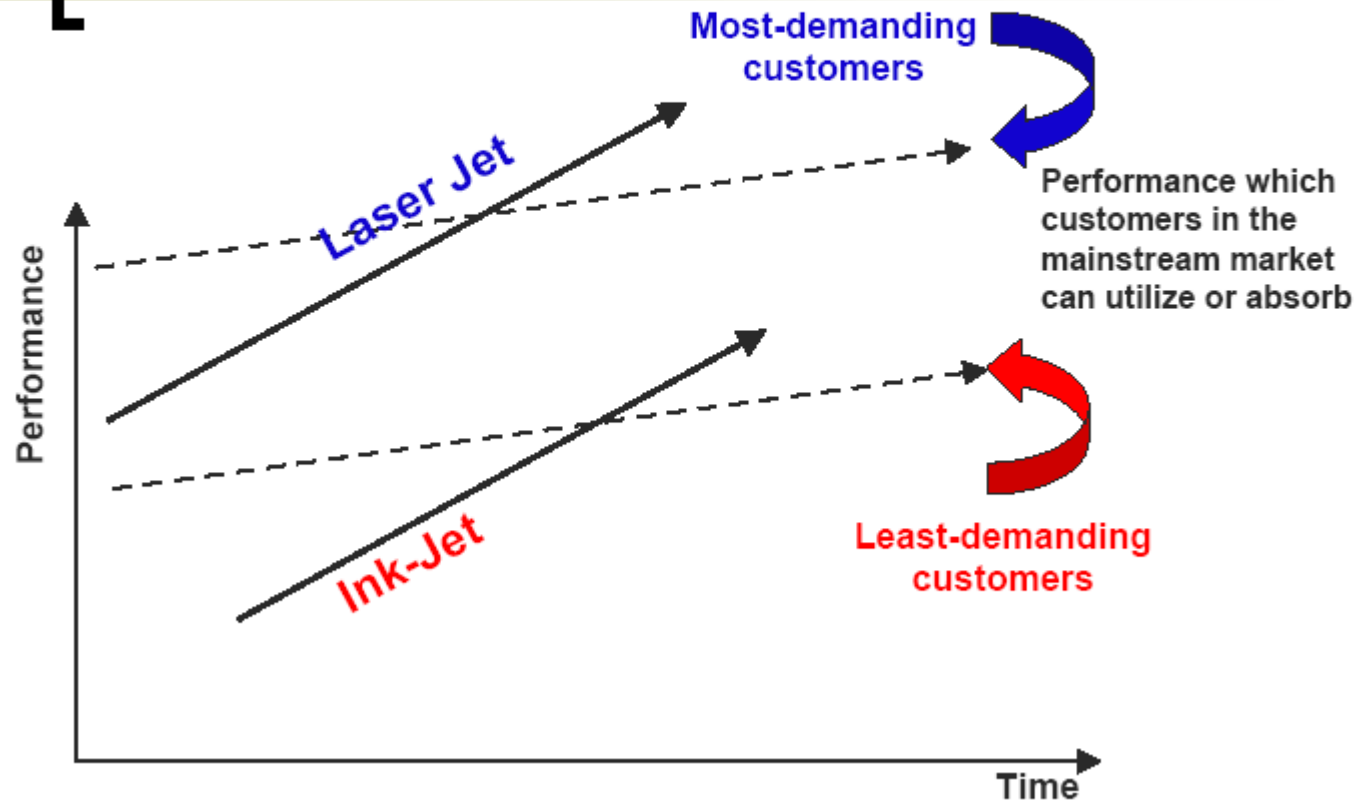
Pourquoi la crise dans le domaine de la santé?

Une analogie avec l'industrie en général



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Les imprimantes HP: la gestion intelligente d'une TD *inventée par HP*



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Why should this concern us?

- Costs in healthcare systems are exploding
- Are we producing „overshoot“ in our medical curricula?
- What are the options of a Bologna curriculum?

Le message de Christensen concernant le monde médical

If the histories of disruptive technological revolutions in other industries can serve as a guide, in the future, we should expect

- a healthcare system characterized by lower costs, higher quality, and greater convenience than ever could have been achieved under the prior system
- to be able to consume *more* healthcare in the future, precisely because of its quality, convenience and affordability (*in contrast to present prescriptions that entail consuming less healthcare in order to control its costs [rationnement, clause du besoin, etc...]*)
- However, we will reach this improved state only if disruptive competition, and not regulation or managed care, is the engine of improvement

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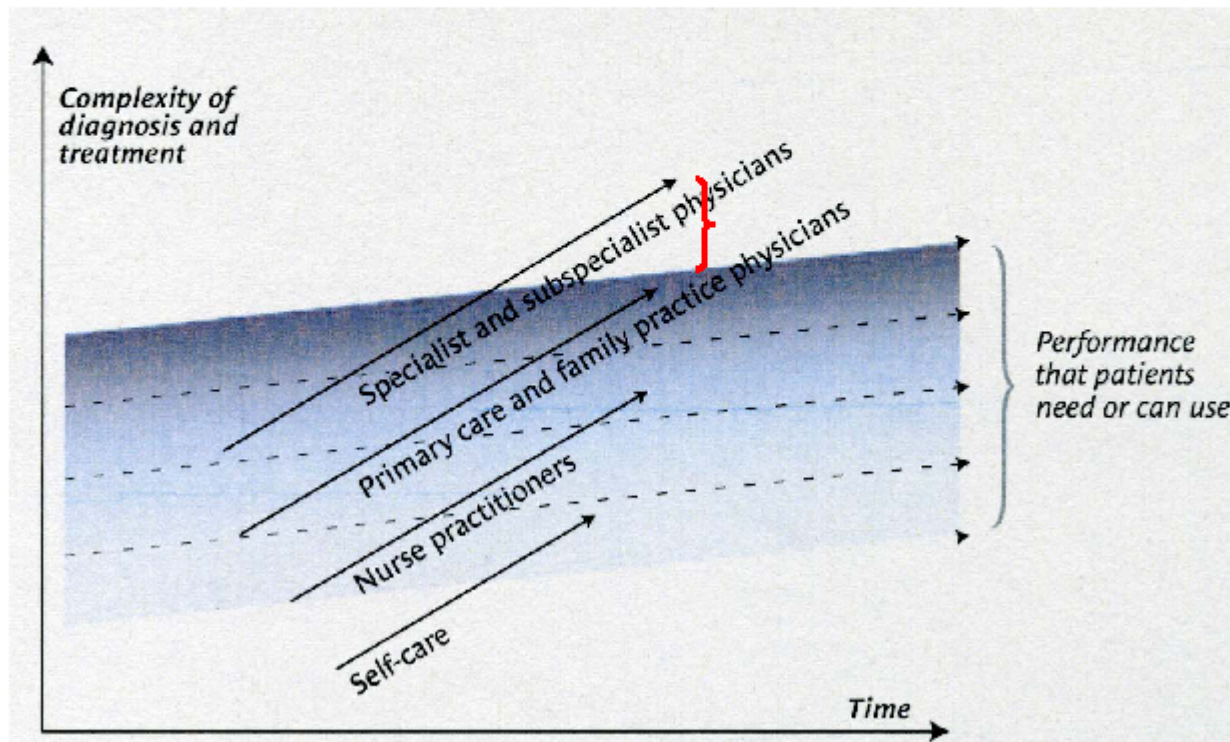
**From a professional point of view, what
would similar disruptive revolutions look
like in healthcare?**

They would be :

- technologies enabling individuals to do for themselves things that historically had required the service of nurses
- technologies enabling less skilled and lower-cost caregivers to do things that historically had required expensive specialists
- technologies in diagnostic and therapeutics enabling nurses practitioners or physicians' assistants to do things that historically had required physicians to manage
- technologies allowing personal care physicians to provide services that historically had required more expensive specialists

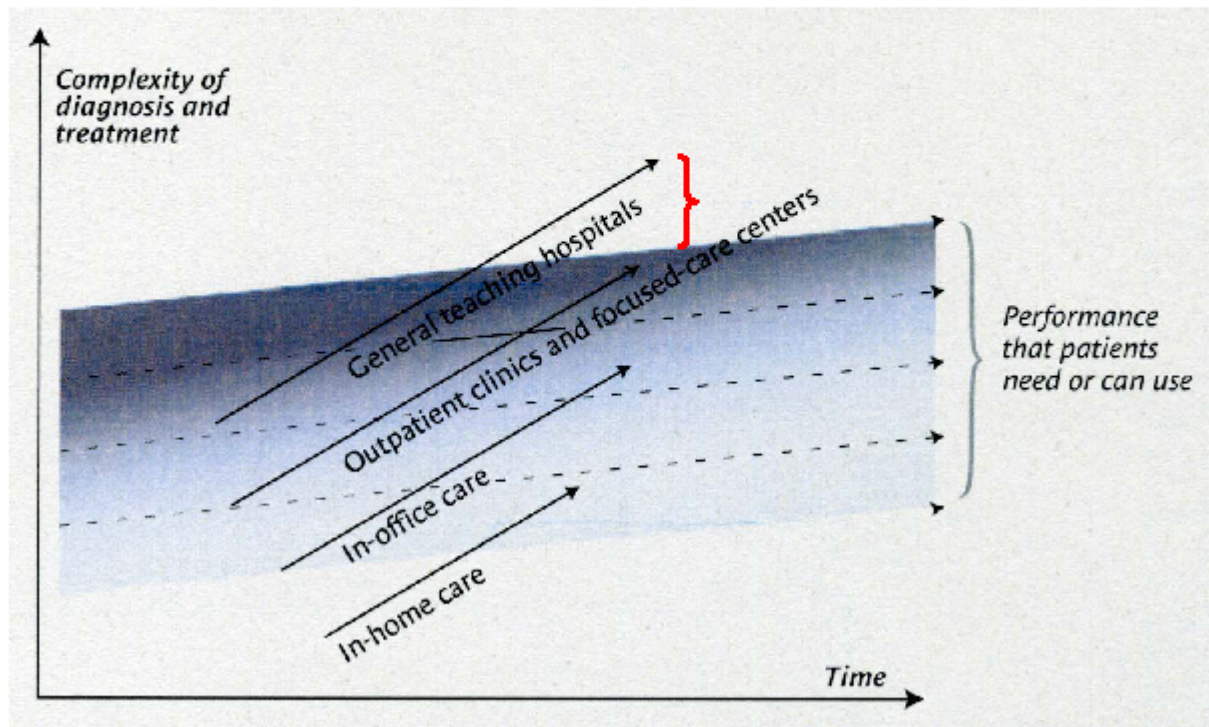
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**From a professional point of view, what
would similar disruptive revolutions look
like in healthcare?**



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**From an institutional point of view, what
would similar disruptive revolutions look
like in healthcare?**



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[Healthcare, an industry that is ripe for disruption ?]

- As a group, the medical schools, specialist physicians, hospitals and equipment suppliers have done an extraordinary job of learning to treat and resolve difficult, intractable problems *at the high end*
- But precisely because of their achievements, healthcare is now an industry that is ripe for disruption

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Typical reaction of faculty members (in Germany)

- No low level medical staff (Barfussmedizin)
- High medical care for everyone
- Enough of reforms
- Bachelor offers new options to work in the field of healthcare, but this is not identical with high aims of the faculties.

But.....

- A curriculum designed in 2 steps, will allow to change the healthcare system in a disruptive manner.
- All responsible actors in this field are under obligation to think of new models instead of restriction.
- Cooperation of politicians, associations of medical professions, faculties, and industry is necessary!