



The Shift to Bachelor/Master Programs in Germany and Their Accreditation - A Report on the Current Status in Informatics

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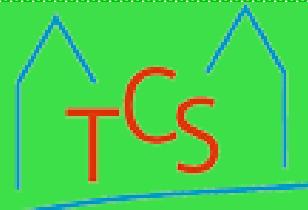
Situation in Germany in 2000/2001:

- education in Germany is ruled by 16 individual state governments
 - federal government only responsible for some coordination and financing
- study programs required permission by the state ministry
 - only formal checks, no subject related or quality requirements
 - standards have been established by organizations like Fakultätentag Informatik
- politics demand that Universities offer the Bachelor/Master system by 2010 nationwide
 - well established Diploma programs (typically 9 semesters)
 - in particular in Engineering and Natural Sciences, should be **completely abolished**
- no details concerning designing Bachelor-Master programs had been worked out
 - in particular length, titles of graduation
 - (BA of Science - BA of Informatics - BA of Science in Informatics - ...)
- special situation in Germany: Fachhochschulen
 - (colleges without research duties and Ph.D., Polytechnica, Universities of Applied Science)
 - (graduation, Dipl. Ing. (FH))



Structural Requirements demanded by the Council of the States

- new programs have to be accredited first
- existing or transferred programs have to be accredited within 1 year
- Ba programs of Universities and Fachhochschulen shall not be differentiated
 - in particular no more distinction between „more fundamental“ and „more applied“
 - every Bachelor degree qualifies for Master continuation
- Ba programs have to achieve „employability“
 - for the majority this should be final academic qualification
- Ma programs have to be classified:
 - „more research oriented“ or „more applied“



Institutional Organisation

Akkreditierungsrat
German Accreditation Council

ECA European Consortium
for Accred. in Higher Education

INQAAHE

D-A-CH

Washington Accord

structural demands

accredits

Accreditation Agencies

ACQUIN

AHPGS

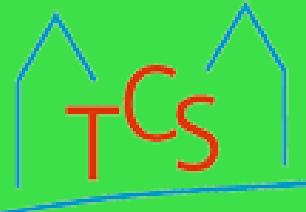
AQAS

ASIIN

FIBAA

ZEVA

Akkreditierungs-, Certifizierungs- und Qualitätssicherungs-Institut
Agentur für Qualitssicherung durch Akkreditierung von Studiengängen
**Akkreditierungsagentur für Studiengänge der Ingenieurwissenschaften, der Informatik,
der Naturwissenschaften und der Mathematik**
Zentrale Evaluations- und Akkreditierungsagentur Hannover



ASIIN: Accreditation Agency for Study Programs in

**Engineering
Informatics
Natural Sciences
Mathematics**

private organisation (e.V.)

established by academic and industrial institutions

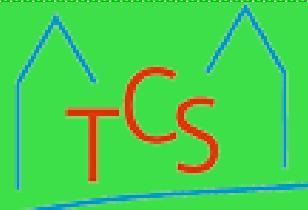
GI Gesellschaft für Informatik

VDI Verband der Ingenieure

FTI Fakultätentag Informatik (University departments)

FBI Fachbereichstag Informatik (FH departments)
and many more

focussed, but not restricted to accrediting programs in Germany



Structure of ASIN

Board of
institutional
members

4 Akkreditierungskommissionen

6-10 members each

decides on
accreditation

discusses
prepares a decision

14 Fachausschüsse
8-15 members each

checks program proposal
visits institution
writes report + proposal

Reviewing Team
4-8 members
special for each case

select
members

Informatics:
> 100 experts from
Universities, FH,
Industry, Students



Accreditation Procedure

duration: 6 month

evaluation: 1,5 days at the institution

report: 30-50 pages

cost: 10 - 15k €

possible decisions: accreditation for 5 years

conditional accreditation for 1+4 years

no accreditation



Some Statistics

(state ~ October 2006)

number of accreditations
in total

ACQUIN	300	percentage in Informatics
AQAS	285	
ASIIN	482	> 75%
ZEvA	280	

accreditation of ASIIN

Bachelor
Master

sum

Universities

130
210
340

Fachhochschulen

276
192
468

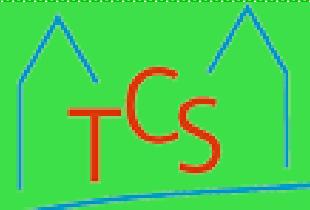


Some Statistics II

(state ~ October 2006)

number of study programs	Universities		Fachhochschulen	
TOTAL	7863		3086	
Bachelor	1741	22%	1386	45%
Ba accredited	361	20%	527	38%
Master	1259	16%	830	27%
Ma accredited	432	34%	414	50%
Ba + Ma		38%		72%

length of study programs	Universities		Fachhochschulen	
Bachelor	6 Sem	95%		52%
	7 Sem	3%		38%
Master	4 Sem	75%		50%
	3 Sem	12%		33%



Some Statistics III (state ~ October 2006)

number of accredited programs by area

Informatics

Ba Ma total

127 99 226

Mathematics

17 14 31

Physics

25 17 42

Total Natural Sciences, Inf., Math

224 186 412

Elec. Engineering

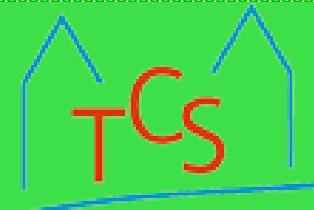
80 76 157

Mech. Engineering

75 42 117

Total Engineering

278 255 535



Research Project EuroInf

European Accreditation of Informatics Programs (2006-2008)

Goal: setting up a qualification framework for accreditation of informatics education

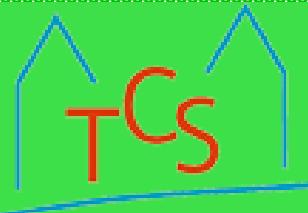
- common European standards
- European label

Institutions:
ASIIN
CEPSIS
HAW
Uni PB

Council of European Professional Informatics Societies
Hochschule für Angewandte Wissenschaft Hamburg
Universität Paderborn, Institut für Informatik

previous projects: **EUR-ACE**

Accreditation of Euro. Engineering Programmes and Graduates(FEANI)



Outlook

- still several thousand Diploma programs have to changed into Ba/Ma by 2010
- no clear solutions yet for the areas medicine, law, theology, teachers education
- still several thousand programs have to be accredited within the next years
- first reaccreditations on the way (7 years period)
- methodological shift from setting up formal rules to output requirements (skills)
- new accreditation procedures? - program versus process/system