

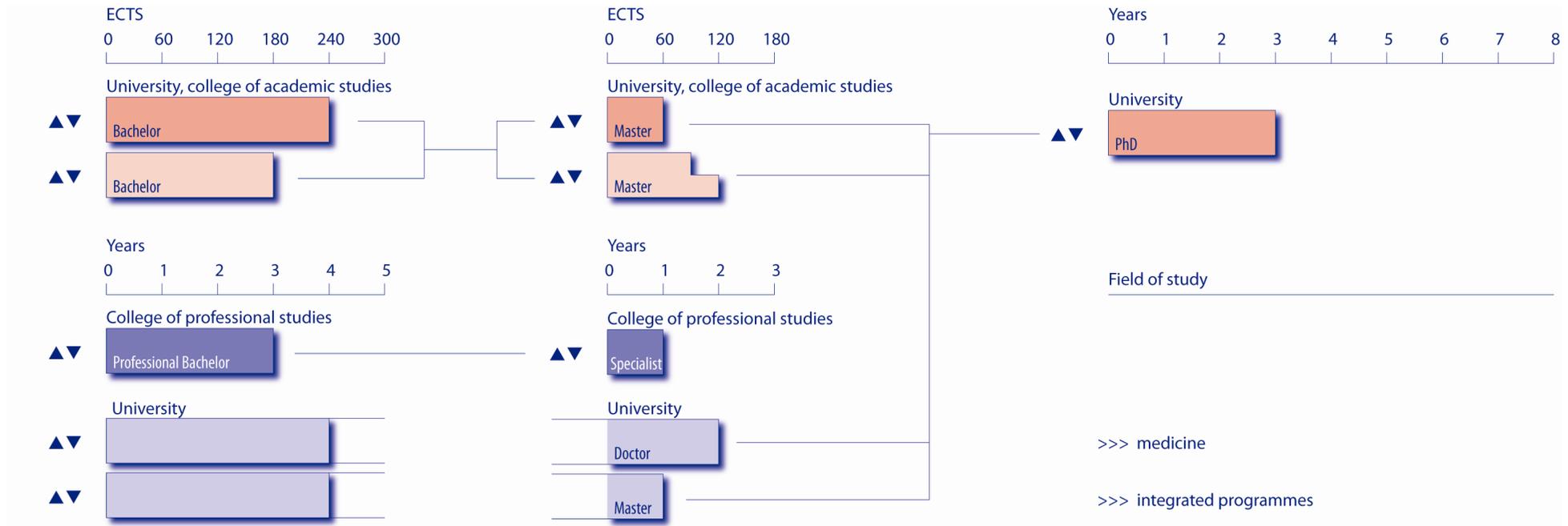


# HIGHER EDUCATION IN SERBIA



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# The higher education system in Serbia



- Most common length of a Bologna cycle
- Other length of a Bologna cycle
- Programme outside the typical Bologna model
- Professional programme

**ECTS**  
Credits according to the European Credit Transfer and Accumulation System

		regulated at national level	decided at institutional level
ALL	programmes have admission requirements	▼	▲
SOME		▽	△

# I. Overall description

## 1. Major characteristics of tertiary education in the country

### Legislation covering the field of tertiary education

The Law on Higher Education (LHE, 2005 and amendments in 2008, 2010 and 2012) provides a legal basis for full implementation of the Bologna Declaration and the Lisbon Convention.

The Lisbon Convention was ratified by the National Assembly in March 2004.

The National Strategy for the development of education, approved in October 2012, provides a great number of important innovations at all levels of education in Serbia. As far as higher education is concerned, the strategy sets up 2 important goals to be achieved by 2020:

- At least 40% of students who finish the 4 year vocational high schools and 95% of those who finish grammar school should enter the 3rd cycle of studies;

- At least 50% of students who finish Bachelor studies should enrol in a Master degree programme and at least 10% of Master students should get into a Ph.D programme.

### Types of tertiary education programmes and qualifications

The three-cycle structure prescribed by the LHE has been instituted in all higher education institutions. The three-cycle structure based on the Bologna principles was formally implemented in the academic year 2006/2007. The percentage of the total number of all students below Doctorate level, enrolled in two-cycle degree systems in the academic year 2008/2009, was 89%. The second cycle of academic qualifications gives direct access to the third cycle. Third-cycle programmes (Ph.D) started in 2006/2007 in many universities.

In order to access the Doctorate level programmes, students must have accumulated at least 300 ECTS for most study programmes

and at least 360 ECTS for medical sciences. Within the Doctorate programmes, students must earn a minimum of 180 credits to obtain the degree. Doctorate programmes include obligatory course work and individual research. The doctoral dissertation is the final part of the study programme at Doctorate level, except for doctors of arts, who follow an artistic programme. Completed scientific contributions are graded according to the number of scientific publications, patents or technical innovations.

The titles acquired after the different cycles are translated as Bachelor, Bachelor (Honours) (240 ECTS), Bachelor (Appl.), Master and Ph.D.

A higher education institution may, within the scope of its activities, implement programmes of lifelong learning outside the framework of study programmes for which it has obtained accreditation and a work permit. A person admitted to this type of programme does not have the status of student.

A person who has mastered a programme within the lifelong learning framework is issued a certificate.

### Types of tertiary education institutions

There are three types of higher education institutions in Serbia: universities (*univerzitet*), colleges of applied sciences (*visoka škola strukovnih studija*) and colleges of academic studies (*visoka škola akademskih studija*). Faculties usually have the status of a legal body, but they cannot exist independently as they need to be a constituent part of a university.

The law also allows colleges of applied sciences to come together and form universities of applied sciences, but until now such institutions practically do not exist. A Tempus project on "Establishing and capacity building of the Southern Serbian Academy and the National Conference for Vocational Higher Education" (project no. 517200-TEMPUS-2011-BE-SMGR), initiated recently, has started

addressing the creation of one such academy in the Southern Serbian region.

Universities are the only teaching and research higher education institutions in the country and provide all three cycles of higher education as well as some forms of lifelong learning.

Colleges of applied sciences and colleges of academic studies, of which 72 have been accredited since October 2009, provide a first and some sort of second cycle of higher education. This second cycle is limited to 60 credits of applied specialisation which is not the same as a Master of Applied Sciences. Currently, there is an ongoing discussion related to this issue and the conclusions will be included in the text of a new Law on Higher Education.

There are approximately 200 000 students in higher education.

Serbia has altogether 8 public and 9 private universities, 47 state-funded colleges of applied studies and 17 private colleges of applied studies. The number of colleges of academic studies is 8 in total: 3 are state funded and 5 are private.

<b>Number of HEIs (in academic year 2011/2012)</b>	
89	
<b>University</b>	<b>College</b>
8 (public)	47 + 3 (public)
9 (private)	17 + 5 (private)

<b>Number of students (in academic year 2011/2012)</b>
200 000

## 2. Distribution of responsibilities

At the central level, the main responsibilities lie with the Ministry of Education and Science and the National Council for Higher Education, which came into existence in 2005 and whose members are elected by the National Assembly.

The Ministry of Education and Science is the governmental authority in charge of higher education. It recommends policy to the Government, plans the admission policy for students, allocates the financial resources to higher education institutions, oversees the overall development of higher education and ensures the execution of decisions of importance.

The National Council of Higher Education, (NCHE) has overall responsibility for strategic planning and decisions about main issues relevant for the coherence of the HE system, such as setting standards for the internal assessment and quality evaluation of HE institutions and establishing standards for the issuance of work permits. The Council is an independent body, consisting mainly of academicians proposed by the Conference of Serbian Universities (CSU) and appointed by decision of the National Assembly.

- Governance of the higher education system in Serbia is not totally centralised. The autonomous province of Vojvodina has significant jurisdiction over the higher education institutions located on its territory. Its main responsibilities are the following:
  - Founding of higher education institutions in Vojvodina;
  - Issuing work permits to higher education institutions located in Vojvodina;
  - Carrying out administrative supervision of the higher education institutions located in Vojvodina;
  - Allocating the financial resources provided through the budget of the province allocated for higher education institutions
  - Monitoring the use of such financial resources;
  - Defining the number of students that can be enrolled in the first year of study, in accordance with the proposals of the National Council for Higher Education;
  - Nominating the members of councils of state colleges of applied sciences and of state universities located in Vojvodina.

Two groups also participate in the governing of higher education as consultative bodies. These are the Conference of Universities and the Student Conference.

### **3. Governing bodies of the Higher Education Institutions**

Universities have a dual governance structure comprising the Council and the Senate.

The Council is the administrative body of a higher education institution. The Council is responsible for long-term strategic decisions, such as deciding on statutes, strategic plans, election of the rector and vice-rectors, and budget allocation. The Council of the state higher education institutions comprises the representatives of the institution, students and the Government. Up to two-thirds of the total number of Council members are representatives of the higher education institution and one third of the total number of Council members are students and representatives of the Government.

Management staff from enterprises and officials from other organisations are very frequently founder representatives.

The Senate is the academic body of a university, and the professional body of a faculty and/or an academy of arts. The Senate is responsible for academic issues, such as the curriculum, degrees and staff promotions. The Senate consists of internal members - professors (deans of faculties at the university, or academic staff at the faculty) and students. Twenty per cent of the members of the Senate (of the university or the faculty) are student representatives.

The executive officer of the university is the Rector, of the faculty it is the Dean and of the academy or college of applied sciences it is the Head. The executive officer is elected among the teachers of a higher education institution who are employed full-time and who have been elected for an indefinite period of time. The executive officer is elected for a period of three years with a possibility of being re-elected for another period of three years.

### **4. Financing**

Higher education institutions may acquire funds from various sources. These are mainly: the founding body, students (tuition fees), donations, gifts and endowments, projects and contracts related to the carrying out of courses of study, research and consulting services;

A higher education institution manages these funds independently.

State-founded and privately-funded universities are in a different position in relation to funding.

Generally speaking, a higher education institution founded by the state will receive funds for the implementation of approved and/or accredited study programmes on the basis of a contract concluded between the independent higher education institution and the Government. In practice, the funds are transferred directly from the state budget to the faculties and to the universities.

The funds that a higher education institution and/or a higher education unit (faculty, department) acquires, in addition to the funds provided by the Republic, make up that institution's own income. These funds include tuition fees, provision of services to third persons, gifts, donations, sponsorships and other sources of fund acquisition.

These funds are disposed of by a higher education institution and/or higher education unit which has the capacity of a legal entity, in accordance with the law and the general act of that higher education institution and/or higher education unit.

### **5. Student contributions and financial support**

There are two categories of students with respect to funding: state-funded students, who study at state higher education institutions, and self-funded students, who exist in all types of higher education institutions.

All self-funded students at a particular higher education institution pay the same fee, regardless of age. Tuition fees are determined by the higher education institutions.

The criteria for determining fee levels are established by the general charter of a higher education institution.

Prior to announcing a competition for admission of new students, a higher education institution establishes the amounts of tuition fees for all study programmes in the following academic year.

The tuition fee determines the costs of studies for one academic year, i.e. for acquiring 60 ECTS.

The tuition fee includes compensations for regular services that a higher education institution provides to a student within the framework of the relevant study programme. Students who study at state higher education institutions can apply to use student halls of residence – they can live there under very advantageous conditions. Student canteens can be also used under the same conditions.

There are also other benefits that all students can use such as health insurance, use of summer or winter resorts for more favourable prices, leisure activities, sport clubs, etc.

## **6. Licensing, quality assurance and accreditation of institutions and/or programmes**

Serbia operates an integrated national quality assurance system complying with the Standards and Guidelines for Quality Assurance (QA) in the European Higher Education Area.

The Commission for Accreditation and Quality Assessment (CAQA) is legally responsible for organising and monitoring the quality assurance scheme for all higher education institutions in Serbia. The CAQA was formed in June 2006 as an independent expert body of the NCHE. The CAQA designs standards, protocols and guidelines for the NCHE's approval and publication and helps institutions in creating their respective quality management systems. The CAQA carries out quality assurance processes in forms of accreditation and external quality assurance of all higher education institutions and study programmes, in accordance with the LHE. During the development of the QA system, the European Standards and Guidelines (ESG) were used as the main source of information. Existing accreditation standards do include QA topics, and therefore fully comply with the ESG.

The CAQA has a policy for the assurance of its own quality. The Commission is subject to national and international peer reviews; internal quality assurance procedures for the Commission are publicly available on the website along with the mission statement and management and action plans. The CAQA regularly conducts (once a year) an internal evaluation and produces reports on its work and achievements for the NCHE. The CAQA is an associate member in the European Association for Quality Assurance in Higher Education.

Higher education institutions have a legal obligation to develop internal quality assurance systems. Implementation of the standards for internal quality assurance is in the first place the responsibility of the institutions. Internal quality assurance is one of the themes in the accreditation frameworks. An important element on the basis of which programmes are assessed for accreditation is whether there is a coherent system of internal quality assurance with clear goals and regular monitoring which leads to continuous improvement. The self-assessment report is an obligatory document in the accreditation file of any higher education institution. Students are involved in the preparation of self-assessment reports and in the follow-up procedures.

The external quality assurance system operates at national level; only accredited higher education institutions and study programmes are entitled to award Bachelor, Master and Doctoral degrees.

Accreditation and external quality assessment are a part of the work permit procedure performed by the Ministry of Education and Science. The accreditation process comprises accreditation of all higher education institutions (institutional accreditation) and of all their study programmes (programme accreditation). Eight public universities (around 85 faculties), eight universities established by non-state founders (around 40 faculties) and more than 80 colleges of applied sciences (under the primary domain of the CAQA) are subject to compulsory national accreditation. The accreditation of HEIs carried out by the CAQA started in 2007. Accreditation has been completed for colleges which previously had two-year programmes. Colleges of applied sciences provide first-cycle (vocational-

Bachelor) programmes and second-cycle (vocational-Master) programmes.

## **7. Admission**

The main elements of admission policy are defined by the LHE. These rules apply to all who wish to enrol at a higher education institution.

First, an independent higher education institution announces an admission competition which contains the number of students to be admitted to an individual study programme, the admission conditions and the criteria for candidates' rating lists and the procedure for carrying out the competition.

The number of students is determined by the higher education institution. The number of students may not exceed the number set in the work permit.

For a state higher education institution, the Government decides the number of students to be enrolled in the first year of a study programme financed from the State budget. The decision is taken after receiving advice from higher education institutions and the NCHE not later than two months prior to the announcement of a competition.

## **8. Organisation of the academic year**

Higher education institutions organise and implement study programmes within an academic year commencing, as a rule, on 1 October and lasting 12 calendar months.

An academic year may be divided into:

1. two semesters, each lasting 15 weeks;
2. three trimesters, each lasting 10 weeks;
3. blocks of an aggregate duration of 30 weeks, the individual duration of which is established by the general act of the higher education institution.

## **9. Curriculum content**

The curriculum is defined at institutional level. However, it is the case that for certain professions (teachers who work in primary schools, doctors, pharmacists and similar

occupations) some elements of the study programmes are broadly defined by other legislation (the Law on Education Foundations, the Law on Medical Protection and the Law on Medicines). The undergraduate curriculum for teachers' studies must include 30 ECTS for pedagogical and methodological subjects.

Study programmes consist of compulsory and elective subjects.

The Law on Higher Education introduced the ECTS as the mandatory credit system to be used by all higher education institutions in all degree programmes, for both credit transfer and accumulation. The ECTS system is fully implemented in all HEIs. Every study programme contains a precise description of the courses and the number of ECTS. This is based on the student workload required to achieve the expected learning outcomes.

## **10. Assessment, progression, certification and degree**

The most common forms of assessment of students are written and/or oral exams.

Prior experiential learning is usually not recognised. There are some exceptional cases in which ECTS are awarded to students who volunteered for or participated in some non-teaching activities. The authorities are aware of this problem and this issue might become better regulated in the near future.

A student may continue studying in the next year after he or she has collected the appropriate number of ECTS. The number of ECTS necessary to access the next year of study gained through exams is not the same for state-funded and self-funded students.

At the beginning of each academic year, a state-funded student needs to enrol on the number of courses corresponding to 60 ECTS. A self-funded student can enrol on courses with a total value of at least 37 ECTS.

Those who wish to work in certain professions (e.g. teachers, the medical professions, etc.) have to work for one year after which they have to pass the state exam.

Those who have obtained their degrees at universities can enrol in the next cycle of higher education.

## **11. Academic staff**

The main categories of teaching staff are teachers, researchers and associates.

The ranks of teachers in higher education institutions include: lecturers, professors in colleges of applied sciences, docents, associate professors and full professors.

To be selected as a teacher, higher education institutions take into consideration the following elements:

- an assessment of the results of scientific, research and/or artistic work;
- an assessment of involvement in the development of teaching methods and the development of other activities concerning a higher education institution;
- an assessment of the results of pedagogical work, as well as the assessment of the results achieved in coaching junior teachers of sciences and/or arts.

In assessing the results of the pedagogical work, the opinion of students is considered.

## **12. Research activities**

Traditionally, all university institutions in Serbia have been involved in research through scientific projects granted by the Ministry of Science and Technological Development (<http://www.nauka.gov.rs>). In parallel with academic accreditation, all university faculties have to obtain national accreditation for scientific research. The LHE envisages research as a necessary part of academic life. It always has been and still is an obligatory task for all academic institutions and their teaching staff. It is not obligatory for the colleges of applied sciences.

## **13. University-enterprise cooperation**

The involvement of employers in the definition of curricula is not precisely regulated at national level. It is preferable, but not obligatory, to consult these stakeholders during the redefinition of curricula. Employers are usually represented on higher education councils.

## **14. International cooperation**

The outbound mobility of national students is promoted and funded through the Fund for Young Talent. This fund was set up by the Government. It is run by the Ministry of Youth and Sport. Four calls for applicants have been organised so far; scholarships to study in the EU were awarded to 97 students in 2008 and 155 students in 2009, 322 students in 2010 and 414 in 2011. The fund also supports talented students who study in the country.

Inter-university cooperation is promoted by the activities of the National Council for Higher Education.

Apart from Tempus, the Seventh Framework Programme (FP7) and Erasmus Mundus, higher education institutions participate in the Campus European programmes and the Central European Exchange Programme for University Studies.

Almost all universities, and many colleges, in Serbia have established bilateral cooperation with universities in the EU countries, the USA, Canada, countries in Asia and other regions. This cooperation is aimed at increasing the number of students coming to Serbia, and focuses on research and delivery of some teaching programmes, sometimes as joint or double degrees.

The Republic of Serbia has also signed around 23 bilateral agreements related to higher education with countries from different regions, half of them members of the EU.

Issues of mutual interest, such as bilateral student exchanges (mostly at postgraduate level), exchange of lecturers and education experts, cooperation in research activities and the exchange of publications are the most common topics in these agreements.

## II. Current challenges and needs

### 1. Trends and challenges

Since the beginning of the reform of the higher education system in Serbia, a lot has been done. Despite its dynamism, certain important issues (mentioned below) need to be addressed in the near future. The HE system would in this way be able to meet constant changes and harmonise its development with ongoing trends and its environment.

#### Amendments of the HE Law

At central level, there is a need to harmonise further the Law on Higher Education, which was adopted in 2005 and amended in 2008 and 2010. An analysis of the first round of institutional and study programmes accreditation process across the country (2007-2010) was the basis for the amendments to the Law. This work is being prepared by a working group which operates at national level.

One of the main challenges for the whole education system, including higher education, is the creation of an overall education strategy for the next five-ten years. Progress in this respect is expected during 2012 and 2013. The strategy also needs to include trends related to lifelong learning and all factors that shape the education system.

Reform of the funding of the higher education system, measures for improvement of student mobility and recognition, a strengthening of the links between science and teaching are the challenges for all stakeholders and therefore they need to be addressed in this document.

The strategy and harmonisation of the Law will take into account the need for achieving flexible learning paths between academic and vocational/applied studies in order to permit students to progress seamlessly to the next cycle of higher education. The quality of the learning process and provision of study programmes at colleges of applied sciences, that have passed the first round of accreditation, needs to be further enhanced.

#### The National Qualification Framework

Development of the national qualification framework for HE has almost been completed by the National Council for Higher Education. Although some sort of dialogue with stakeholders exists, it needs to be further improved so that partners from industry are more systematically involved in decision-making procedures related to redesigning study programmes and the development of lifelong learning strategies.

A specific contribution to the practical implementation of the qualification framework and to the drafting of the comprehensive strategy related to the needs of the higher education system is expected from the Tempus project "Governance and Management in Higher Education in Serbia" which started in January 2010. This project also addresses another burning issue: the integration of universities in Serbia.

Along with the development and implementation of the sectorial qualification frameworks, it is expected that learning outcomes and ECTS allocation will be revised and adapted in cooperation with students, industry and other stakeholders. These changes will be very demanding because of the necessity for the involvement of almost all higher education institutions in the country.

The proper implementation of the ECTS is based on student workload and learning outcomes still remains a priority. Developing, describing and implementing learning outcomes is one of the main tasks of HE institutions in the near future.

#### Quality assurance

After the end of the first round of accreditation of the institutional and study programmes across the country (2007-2012), the Commission for Accreditation and Quality Assurance has applied for membership of the ENQA (European Association for Quality

Assurance in Higher Education). In order to achieve this, the Commission has to undergo an external evaluation of its work. The standards for accreditation will be revised according to the experience acquired in the first round of accreditation, the need to sustain the spirit of a quality culture and the possibility of supporting initiatives which are based on innovation, creativity and diversity.

Student participation in all aspects of Bologna Process implementation needs to be increased. Student representatives also need to be included in the accreditation process (with the right to participate in the decision-making process) and in the reassessment of student workload that will be performed.

Increasing the quality of student participation in these activities is significant and needs to be facilitated by the support of the relevant academic staff and representatives of former student

**Improvement of student participation**

## 2. The Bologna Process<sup>1</sup>

### **General Information**

<b>Level of integration in the Bologna Process</b>	X	Bologna-Signatory Country (in 2003)
		Non Bologna-Signatory Country
		Bologna Process officially embedded in the education system
		Bologna Process being implemented by ad hoc groups under the supervision of the Ministry of Education
		No particular mechanism supporting the implementation of the Bologna Process

### **Bologna cycle structure**

<b>Level of implementation of a three-cycle structure compliant with the Bologna Process</b>	Bologna structure fully implemented in all or most fields of study
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<b>Student workload/duration for the most common Bologna programmes</b>			
<b>Bachelor programmes</b>	Various combinations	<b>Master programmes</b>	60 ECTS (1 academic year)

<b>Bachelor/Master cycle structure models most commonly implemented</b>	Various combinations
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<sup>1</sup> Source: Education, Audiovisual and Culture Executive Agency. 'State of Play of the Bologna Process in the Tempus Partner Countries (2012)', A Tempus Study, No 9, April 2012, EACEA, Brussels.

## European Credit Transfer and Accumulation System (ECTS)

<b>Definition of the Learning Outcomes Concept</b>	Learning outcomes are defined in national steering documents and implemented through laws and regulations
<b>Level of implementation of ECTS</b>	More than 75% of institutions and programmes are using ECTS for both transfer and accumulation purposes. Allocation of ECTS is based on learning outcomes and student workload.
<b>Indicative number of hours of student workload corresponding to one ECTS</b>	1 ECTS = 30 – 40 hours

## Bologna Diploma Supplement (DS)

<b>Level of implementation of the Bologna Diploma Supplement</b>	Bologna DS is issued to students in more than 75% of institutions and study programmes	
<b>Diploma Supplement issued</b>	Bologna DS is issued on request in return for payment	Bologna DS issued in the language of instruction and /or English

## National Qualifications Framework (NQF)

<b>Stage towards establishing a National Qualification Framework</b>		Not yet started formally/not foreseen.
		<u>Step 1</u> : Decision taken. Process just started.
		<u>Step 2</u> : The purpose of the NQF has been agreed and the process is under way including discussions and consultations. Various committees have been established.
	X	<u>Step 3</u> : The NQF has been adopted formally and the implementation has started.
		<u>Step 4</u> : Redesigning the study programmes is ongoing and the process is close to completion.
		<u>Step 5</u> : Overall process fully completed including self-certified compatibility with the Framework for qualifications of the European Higher Education Area.

## Quality Assurance Practices

National Quality Assurance body				
<b>Name</b>	Commission for Accreditation and Quality Assurance			
<b>Status</b>	A single or several independent national bodies for quality assurance have been established.			
<b>Year of establishment</b>	2006			
<b>Main outcome of the review</b>	X	A decision granting the reviewed institution/programme permission to operate		
		Advice on how the reviewed institution/programme can improve quality		
		Both permission and advice		
		Not available		
<b>Involvement in external quality assurance process</b>		Decision-making role	Participation	No participation
	Academic staff	X		
	Students		X	
	International Experts			X

## Recognition of foreign qualifications

<b>Ratification of the Lisbon Recognition Convention</b>	X	2004 (signature and ratification)
<b>Recognition of Foreign Qualifications for academic study</b>	Recognition of academic study by higher education institutions	
<b>Recognition of Foreign Qualifications for professional employment</b>	No information available	

## Joint Degrees

<b>Establishment of joint degrees and programmes in higher education legislation</b>	Joint programmes and joint degrees are provided for by the higher education legislation.
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## III. Participation in EU programmes

### 1. Tempus

Institutions located in present-day Serbia have participated in the Tempus programme since 2001.

#### 1.1 Statistics

**Number of projects in which one or several institutions in the country have been involved (as coordinator, contractor or partner)**

	TEMPUS I and II	TEMPUS III	TEMPUS IV				
	1990-1999	2000-2006	2008	2009	2010	2011	2012
<b>Joint Projects</b>	0	81	15	11	9	8	12
<b>Structural &amp; Complementary Measures (Tempus III)</b>	0	22	2	2	3	3	1
<b>Structural Measures (Tempus IV)</b>							
<b>Total</b>	<b>0</b>	<b>103</b>	<b>17</b>	<b>13</b>	<b>12</b>	<b>11</b>	<b>13</b>

**Higher education institutions with the highest participation in TEMPUS IV (2008-2012)**

Institutions	Total	Number of projects	
		JP	SM
<b>UNIVERSITY OF NOVI SAD</b>	<b>46</b>	37	9
<b>UNIVERSITY OF BELGRADE</b>	<b>42</b>	34	8
<b>UNIVERSITY OF KRAGUJEVAC</b>	<b>32</b>	26	6
<b>UNIVERSITY OF NIS</b>	<b>24</b>	17	7
<b>STATE UNIVERSITY OF NOVI PAZAR</b>	<b>11</b>	7	4
<b>UNIVERSITY SINGIDUNUM</b>	<b>8</b>	5	3
<b>UNIVERSITY OF ARTS (BELGRADE)</b>	<b>5</b>	2	3

## Higher education institutions coordinating TEMPUS IV projects (2008-2012)

Institutions	Total	Number of projects	
		JP	SM
UNIVERSITY OF BELGRADE	11	8	3
UNIVERSITY OF NOVI SAD	8	7	1
UNIVERSITY OF KRAGUJEVAC	6	5	1
UNIVERSITY OF NIS	4	2	2
STATE UNIVERSITY OF NOVI PAZAR	1	1	0
UNIVERSITY OF ARTS (BELGRADE)	1	1	0
THE SCHOOL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCE (BELGRADE)	1	1	0
THE SCHOOL OF HIGHER TECHNICAL PROFESSIONAL EDUCATION (NOVI SAD)	1	1	0
COLLEGE OF AGRICULTURE AND FOOD TECHNOLOGY (PROKUPLJE)	1	1	0

### 1.2 Impact of the TEMPUS Programme

Serbian participation in Tempus III pretended to be a step forward in bringing together the European Union HE policy and the national concept of the HE. It facilitated the work on the implementation of the obligations undertaken by signing the Bologna declaration in 2003. Projects provided an optimal framework for the reestablishment of the cooperation with EU universities, exchange of academics and students.

Under Tempus IV the Programme has remained the largest instrument assisting higher education institutions in the ongoing modernisation and reform process. It keeps bringing Serbian higher education institutions more in line with the trends within the European Higher Education Area and opens the channels for cooperation with higher education institutions in the EU and other Tempus partner countries.

The increased budgets per individual project, compared to Tempus III phase, is reflected in a more demanding scope of activities to be covered under each project and in the involvement of a higher number of institutions (academic and non-academic). Among the two general types of projects selected under Tempus IV, Joint Projects make a more numerous group (55 projects) addressing the objectives relevant for the higher education institutions involved. A fairly good number of

Structural Measures (11 projects) were funded, which target the challenges relevant for the whole system of HE in the country.

Tempus projects have contributed to creating closer cooperation between academia, industry and the civil society. In all types of projects, a number of different institutions (enterprises, secondary and primary schools, public bodies, NGOs, etc.) take part in various activities. Thanks to this, the non-academic partners are starting to be involved in the design of continuous education courses and study programmes, and their opinions about the competences of graduate students for the labour market are often taken into consideration.

Links with other levels of education – primary and secondary, vocational education and teacher education, continued to be an important focus under Tempus IV in Serbia. The Programme, through several projects, highlighted the relevance of a more coordinated approach, as well as the activities that the higher education institutions need to take care of, bearing in mind the whole education system and the concept of lifelong learning.

Tempus IV in Serbia is significantly supporting the process of university integration, which is

one of the main challenges that the Serbian HE system will need to face in the near future. The creation of interdisciplinary programmes at the level of university and the creation of various centres through Tempus projects highlighted integration as a crucial element for the sustainability of projects results.

The projects also supported the establishment, or improvement, of several important centres for the universities such as Centres for Lifelong Learning, Career Development, Transfer of innovations, etc. These centres have the potential to promote, at central level, the higher education institutions among the wider society. Moreover, they are potentially a good source of additional income for the institutions in the conditions of decreased public funding. Nevertheless, their sustainability and cost-efficiency remains a challenging issue.

The EC decision to allow partner country HEIs to act as coordinators in Tempus projects was well accepted in Serbia. HE institutions have shown plenty of interest in creating capacity in this respect and have acted as coordinators in almost half of the funded projects in Serbia. The funds are managed mostly at central level (university) and this has a positive impact on the involvement of the highest authorities (Rectorates), as they are responsible for the overall grant management. This is why the project activities increasingly involve staff from various faculties within one university. Hence, project results can be exploited more widely.

New staff have been trained in the universities to follow the Tempus & EC project management rules. However, it is often difficult for the institutions to keep, or give permanent contracts to the staff trained through the Tempus projects (e.g. IRO).

The number of multi-country projects has increased as it has been recognised that relevant issues for higher education systems can be addressed jointly by institutions in the region of the Western Balkans.

### **Curriculum Reform Joint Projects**

The process of restructuring study programmes in line with the Bologna cycles was finalised during the previous Programme phase. However, the contribution of Tempus IV is still very useful for further modernisation, for updating existing courses and for introducing new ones.

Almost half of the projects belong to the curricula reform building block. In four cases the projects encompassed the Bachelor programmes modernisation (public administration and management, foreign

languages, primary school teacher education and automotive industry), while the focus in all other projects has been on Master level courses and programmes, many of them of multidisciplinary nature (even if the implementation of multidisciplinary programmes has often encountered obstacles due to the disintegrated nature of Serbia universities). Projects addressing Ph.D level are found at individual faculties only, e.g. doctoral programmes in Mathematics (University of Belgrade) and Public Administration (University Union).

Defining learning outcomes for study programmes and the appropriate allocation of ECTS are topics which require further attention as great differences among the same study programmes still exist in different higher education institutions in Serbia, in the region of the Western Balkans and when compared to the EU universities. It can be highlighted here the positive impact of the project which addressed postgraduate studies in Chemistry and Chemistry related fields which made efforts to adopt and implement the referential framework made within the 'Tuning education structures' project (*Euromaster* label in Chemistry).

Tempus projects have proved to be good platforms for mutual learning and building-up capacity among EU and Serbian partner universities. There were projects that encouraged institutions to create joint programmes with the issuance of a joint or double diploma (e.g. Master programmes in Community Youth Work, Interdisciplinary studies of Southeast Europe, Education Policies and European Studies). In some cases, instead of joint or double degrees, some partner institutions chose the mutual recognition of degrees within a project consortium as more feasible option. The mobility of teachers for the purpose of teacher re-training was well-received also. It is worth noticing that, due to the wider scope of projects, it was almost a rule that representatives of several faculties from the same university contributed to project activities.

In the meantime, the higher education institutions in Serbia improved significantly their IT equipment resources in line with the general trend towards greater use of the internet and ICT worldwide. This has no longer been a problematic issue as in the Tempus III phase. There is an adequate amount of computers, equipment for video-conferencing, video projects, etc. Nonetheless, the 30% project allocation for this budgetary line was well-received. In Tempus IV some more sophisticated and more specific pieces of equipment or software have been purchased. Due to the lack of clear guidelines for the use

of DL and e-learning in the national legislation (accreditation standards and guidelines), and a lack of appropriate training for teaching staff on how to use the e-learning methodology, the use of distance learning options in projects still needs to be improved.

### **Joint Projects and Structural Measures addressing Governance Reform**

Joint Projects and Structural Measures in the building block of Governance Reform have been the most demanding and challenging type of projects under Tempus IV in Serbia.

The projects created a positive climate and raised the interest of a good number of teaching and administrative staff and management, involving the largest HE institutions and other stakeholders in the country. Student representative bodies are invited to participate in a number of governance reform projects as well.

The topics addressed are issues relevant for the HE system (and will be relevant in the future). These include internal and external quality assurance issues, functional integration of universities, students' role in governance and management at universities, career guidance services, student services supporting the social dimension in HE, creation of alumni associations and introduction of a graduate survey system, creation of a conference on vocational HE, upgrading and digitalisation of university library services and the revision of standards for the provision of distance learning education.

In many examples the formal arrangements for certain issues are in place, as a result of projects. However, it would seem that the real impact of reaching the majority of employees of HEIs needs to be further explored.

The attention and support of relevant national authorities (Ministry of Education and Science, the National Council for Higher Education, Conference of Serbian Universities, the National Commission for Accreditation and Quality Assurance) has usually been provided in the inception phases of a project. However, stronger support and participation in certain activities is needed in order to guarantee the sustainability of the project results. In all projects the optimisation of the faculty-university relationship and strategic management issues, as well as promotion of an integrated university, still remain the main challenges.

### **Joint Projects and Structural Measures addressing Higher Education and Society**

Tempus projects in Serbia addressing Higher Education and Society have had a positive impact on intensifying university-enterprise cooperation in line with overall European trends and the Lisbon process. A range of relevant topics, not being present in Tempus III, are now covered.

Several projects developed training and capacity building courses for small and medium enterprises (e.g. Occupational safety and health - degree curricula and lifelong learning, Production and Profitability in Serbia Enterprises by Adopting Lean Thinking Philosophy). One project addressed the creation of special Master programmes – which were designed to be conversion courses for the unemployed or under-employed university graduates in Serbia.

The five largest public universities in Serbia developed in a Tempus project their lifelong learning strategies and LLL centres offering several new modules and courses. The Centres have the potential to encompass all continuing education courses and modules offered by the individual faculties in the future.

The effects of regional cooperation between universities and their surroundings were demonstrated in the examples of the project 'Virtual Manufacturing Network' where a large network of small and medium enterprises was created in the central Serbian region of Sumadija involving the "regional" University of Kragujevac.

Structural Measures projects in this category addressed matching competences offered in HE centres and those needed by the labour market, improved student internships organisation and the work of knowledge transfer centres and the Knowledge Triangle in Serbia.

### **Support to Higher Education Reform Expert Team (HERE)**

Even if Serbia is a Bologna Signatory country, there is still a need to promote further implementation of Bologna action lines, as the reform work in many areas has not been completed or has not been accomplished in the optimal way. The HERE team organised several training events and round tables covering issues of interest for HEI and society in the current period. Some of the topics for the events organised by HEREs included the participation of students in decision-making procedures, the cooperation between doctoral programmes and industry, the understanding of a better diploma supplement, the foster of a better career guidance and students' practical placement, etc.

## 2. Erasmus Mundus

The objective of the Erasmus Mundus programme is to promote European higher education, to help improve and enhance the career prospects of students and to promote intercultural understanding through cooperation with third countries, in accordance with EU external policy objectives in order to contribute to the sustainable development of third countries in the field of higher education. It does this through three Actions:

### Action 1 – Erasmus Mundus Joint Programmes (Master Courses and Joint Doctorates) – with scholarships

Erasmus Mundus Joint Programmes are operated by consortia of higher education institutions (HEIs) from the EU and (since 2009) elsewhere in the world. They provide an integrated course and joint or multiple diplomas following study or research at two or more HEIs. Master Courses and Joint Doctorates are selected each year following a Call for Proposals. There are currently 131 Masters and 34 Doctorates offering EU-funded scholarships or fellowships to students and scholars.

### Action 2 – Erasmus Mundus Partnerships (former External Cooperation Window) – with scholarships

Under Action 2, Erasmus Mundus Partnerships bring together HEIs from Europe on the one hand and those from a particular region, or geographical “lot” on the other. Together the partnerships manage mobility flows between the two regions for a range of academic levels – Bachelor, Master, doctorate, post-doctorate and for academic staff.

### Action 3 – Erasmus Mundus Attractiveness projects

This Action of the Programme funds projects to enhance the attractiveness, profile, image and visibility of European higher education worldwide. Action 3 provides support to activities related to the international dimension of all aspects of higher education, such as promotion, accessibility, quality assurance, credit recognition, mutual recognition of qualifications, curriculum development and mobility.

*More information:*

[http://eacea.ec.europa.eu/erasmus\\_mundus/results\\_compendia/selected\\_projects\\_en.ph](http://eacea.ec.europa.eu/erasmus_mundus/results_compendia/selected_projects_en.ph)

## Number of students/staff participating in the programme

### Erasmus Mundus – Joint degrees (Action 1)

	2004	2005	2006	2007	2008	2009	2010	2011	2012
<b>Students</b>	1	6	3	30	46	65	61	55	42
<b>Scholars</b>	-	-	-	2	6	2	NA	NA	NA
<b>Fellows</b>	-	-	-	-	-	-	0	9	10

*Nationals of the country participated in the programme for the first time in 2004/2005 (students) and in 2007-2008 (scholars).*

## Erasmus Mundus– Partnerships (External Cooperation Window, Action 2)

	Undergraduate	Master	Doctorate	Post-doctorate	Staff	TOTAL
2008	29	18	17	1	17	<b>82</b>
2009	143	69	28	7	43	<b>290</b>
2010*	38	25	12	5	52	<b>132</b>
2011*	94	26	14	10	15	<b>159</b>

## Institutions participating in the programme up to and including 2011

Institutions	Action 1 Joint Programmes	Action 2 Partnerships	Action 3 Attractiveness projects
<b>INSTITUTE FOR FOOD TECHNOLOGY</b>			X
<b>UNIVERSITY OF BELGRADE</b>	X	X	
<b>UNIVERSITY OF KRAGUJYEVAC</b>		X	
<b>UNIVERSITY OF NIS</b>	X	X	
<b>UNIVERSITY OF NOVI SAD</b>		X	X

## IV. Bibliographical references and websites

- Ministry of Education and Science [www.mpn.gov.rs](http://www.mpn.gov.rs)
- Commission for Accreditation and Quality Assurance [www.kapk.org](http://www.kapk.org)
- Ministry of Youth and Sport [www.mos.gov.rs](http://www.mos.gov.rs)
- The most recent Stocktaking report submitted to the Bologna Follow-up Group is available at the website [www.ehea.info](http://www.ehea.info)
- National Tempus Office [www.tempus.ac.rs](http://www.tempus.ac.rs)

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This document reflects the views of the Tempus Office and the Authorities of the country concerned. The European Commission cannot be held responsible for any use which may be made of the information contained therein.

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