



MINISTRY OF EDUCATION, UNIVERSITIES AND RESEARCH

**CNVSU - National Committee for the Evaluation of Higher Education**

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**Information Model for  
Degree Program Accreditation**

Final Report of the Work Group on  
“Evaluation of Teaching and Accreditation”

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## Foreword

CNVSU, the National Committee for the Evaluation of Higher Education, asked the Work Group on “Evaluation of Teaching and Accreditation” to investigate accreditation issues in order to prepare a reference model for Italy's system of higher education that can be implemented by universities nationwide.

The following document is the result of this investigation, some of whose findings should be introduced at this point to provide an idea of the potential – and the limitations – of the Work Group's proposals.

Accreditation encompasses many different concepts, and has been implemented in many different ways<sup>1</sup>. Likewise, any new approach to accreditation in the Italian system of higher education must measure itself against the wealth of prior experience and the multitude of procedures that Italy's universities have deployed, more or less systematically, over the years. Equally intense, and equally extensive, has been the attention that educators and legislators alike have brought to bear on the system's quality and how to evaluate it.

Introducing an accreditation system that fails to build on the skills that Italy's higher education system and individual universities have acquired in this area would be tantamount to ignoring one of our most valuable assets, undermining the system's feasibility.

At the same time, a modicum of order and method must be brought to the many disparate approaches to accreditation in use today, cutting the costs involved, optimizing the effort and investments put into these programs, and making it easier to communicate and share experience and best practices. What is needed is a system that, while eschewing any attempt to impose hard and fast rules, nevertheless establishes a common language and a set of clear and consistently applied mechanisms which ensure that higher education achieves its aims and its most basic purpose: that of serving the country and the public at large.

These, then, are the needs that the model illustrated in this document sets out to meet.

The introductory section provides a concise but, we hope, sufficiently comprehensive overview of the issues addressed by the Work Group. It thus discusses the ways in which educational quality and evaluation/accreditation are interlinked, the most significant initiatives in Italy and elsewhere on which our work was based, our rationale for focusing specifically on degree program accreditation, and our reasons for regarding an information model as the first small step in a lengthy and necessarily incremental process.

We have also attempted to emphasize the very real extent to which the proposed model is rooted in earlier work, springing as it does from the regulatory framework and the measures whereby normative intentions are put into practice.

Far from being a radical departure from the past, the proposed model is thus solidly based in the legislation governing higher education in Italy, bringing together its general and specific precepts – including those embodied in the most recently introduced measures – into a system capable of ensuring that academic quality is maintained and enhanced.

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<sup>1</sup> An initial approach to accreditation for Italian institutions of higher education was outlined by an earlier Work Group in MIUR-CNVSU Document No. 12/01 of July 2001.

It should be emphasized that the proposed model must not be seen as yet another burden, the latest in the long line of tasks that have absorbed so much of Italian universities' energies in recent years as they struggle to adapt to the changes envisaged by educational reform. On the contrary, the model is designed to reduce the universities' workload and prevent duplication of effort by streamlining procedures, encouraging open and effective communication, and stimulating interchanges between different approaches and areas of competence. Seen in this light, the model provides the universities – and the public they serve – with an additional means of improving the quality and effectiveness of their work by optimizing what they have already done, are now doing, and are capable of doing.

## 1. Introduction

In Europe, as in most of the world, there is a widespread awareness that the changes that have swept through higher education in recent years have made it necessary to develop more systematic methods for safeguarding and enhancing quality.

Any number of factors can be cited in support of this view: the greater self-determination afforded to individual universities, the increase in international exchanges, the rapidly growing number of students, new teaching methods, and changes in the conditions under which education is pursued. Public demand for transparency and information are also factors, as the technologies that make it possible to handle vast amounts of data have raised our expectations in this respect.

Common perceptions shade easily into platitudes, however, just as vision can fade to optical illusion. To be truly effective, any systematic approach to quality assurance must thus be compatible with the environment to which it is applied; in other words, it must be sensitive to context. And its benefits must outweigh the time, money and effort put into it.

Degree programs have always been rather loosely organized: alliances between fiercely independent actors driven by disparate motivations. Quality assurance measures can be effective only if they change or regulate these actors' conduct, less by coercion than by suggestion and example; by the kind of give and take that results in voluntary participation. And this in turn is a question of espousing certain shared attitudes, rather than simply paying lip service to them: attitudes that include a determination to get things done, a readiness to cooperate, a willingness to shoulder responsibility.

Quality assurance programs involve a fairly complex administrative apparatus that collects and processes data and ensures compliance with organizational and regulatory requirements. It is essential that these day-to-day tasks be handled by trained staff who can help the faculty accomplish its aims and relieve it of much of the burden involved.

Ensuring that the faculty understands what the quality assurance program is seeking to achieve is equally important. The message must be clear: each faculty member must know precisely what he or she is expected to do, and how it will contribute to enhancing the degree program's quality. This is not a question of appealing to the individual's good will, but of emphasizing that the real focus and pivot of quality assurance is the degree program.

Quality assurance measures and how they are communicated rely on two catalysts for change:

- Open access: The very fact that documentation is freely available encourages a spirit of transparency. As a result, the organization can communicate itself more effectively.
- Clear-cut rules: People are inclined to give more careful thought to expectations that are clearly and appropriately expressed. This leads them to emulate the improvements they see around them, a process that openly accessible information helps spread.

Evaluation and accreditation are essential parts of the funding process, and will be even more essential in the future. On a less mundane level – *paulo maiora canamus* – they will leave a more enduring mark if they aim straight for what goes on in the classroom and lecture hall; if they encourage teachers to establish open, documented and verifiable interchanges with their students; if they are seen as crucial to the university's reputation.

Supranational changes have also had their effect. With the processes sparked by European integration, the freedom of movement facilitated by Council Directive 89/48/EEC, and the

right to fair recognition of academic qualifications established by the Lisbon Recognition Convention (Council of Europe / UNESCO 1997<sup>2</sup>), all participants in higher education programs will demand that the professional qualifications they receive be recognized and accepted beyond national boundaries.

Thus, evaluating and accrediting degree programs must be viewed as part of an international movement which centers on **describing, developing, and certifying competencies**.

What, then, should we evaluate?

- Internal efficiency, or how smoothly the organizational machine runs?
- Economic efficiency?
- External effectiveness, or how well the program meets the needs it is called upon to fulfil?

Of these three choices, each of which represents an entire philosophy of evaluation, the third is clearly to be preferred.

Identifying the learner's needs entails:

- Specifying worthwhile goals  
(this is the fitness of purpose concept):  
*Drawing on contributions from stakeholders outside the university, the degree program must identify overall learning goals which will enable students to satisfy their further study and career aspirations.*
- Enabling the majority of students to achieve these goals (this is the fitness for purpose concept):  
*The degree program must expose students to the learning experiences that will be most effective in helping them achieve stated goals.*

Needs as multifaceted as these cannot be met simply by relying on quantitative indicators that measure student progression, performance, or achievement. Certainly, it is important that such indicators be used, both because they can condense large amounts of information in objective form, and because they draw attention to anything out of the way or unusual, and thus help keep the program on track by discouraging mere idiosyncrasies. Using these yardsticks is necessary, though they show us nothing about the actual teaching and learning practices behind them.

Indicators must thus be flanked by qualitative information about the factors that contribute most to creating an effective learning environment: faculty competence, the quality of the commitment demanded of faculty members, how well the program meets educational needs, whether the program is provided with adequate human and material resources, and the methods used for teaching and student assessment.

It is important to make sure that the work that goes into compiling this qualitative information is not seen as a bureaucratic chore, but as a sign that the degree program can inspire faculty members to do their best.

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<sup>2</sup> Council of Europe, Unesco, Convention on the Recognition of Qualifications concerning Higher Education in the European Region, Lisbon Conference, 11 April 1997.

## 2. The situation in Italy: regulatory framework and major initiatives

In Italy, Ministerial Decree 509/99 empowered each university to establish its own institutional teaching regulations, expressly stating that these regulations must establish means for verifying or **evaluating** the quality of educational provision (Article 11, indent 7, item 1).

Annex 1 (Article 4, indent 4) to Ministerial Decree No. 115 of May 8, 2001 requires that each degree program have “*a system for on-going evaluation of the quality of the educational organizations and its outcomes which meets national and international criteria*”. It also requires that the degree program concern itself with “*prospective employment and coordination with the outside world*”.

Subsequent ministerial documents clarified the purpose and scope of these new requirements. Accreditation procedures and criteria were outlined in MIUR-CNVSU Document 12/01 of July 2001 on the “*Implementation of a degree program accreditation system in Italian universities: initial recommendations and proposals*”, which illustrated the structure of a document (called a Quality Management Information Model) whereby degree programs could state their aims, processes and intended outcomes.

MIUR-CNVSU Document No. 17/01 of December 2001 on “*Minimum resources for university degree programs*” proposed requirements for determining whether each degree program was conducted by a specified minimum number of faculty members, and suggested that limits be set on the number of students enrolled in each program. These measures were to be put into immediate effect. The document also announced that subject classifications be reexamined in the near future, and that checks on the university facilities (e.g., classrooms, lecture halls, laboratories and libraries) available for specific degree programs would be carried out at a later date.

Ministerial Note No. 995 of July 3, 2003 provided further details concerning minimum requirements and returned to the open question of quality assurance for degree programs: “*until such time as procedures for **accrediting degree programs and the associated institutional structures** which reflect the goals of the 1999 Bologna Declaration are developed at the national and/or Community level, it is necessary to adopt a matrix of structural and process parameters which represent the conditions, as well as the minimum requirements, whereby quality can be guaranteed and students can be provided with a basis of comparison for making informed choices*”.

Several significant initiatives were fielded in the meantime. One of the most noteworthy was the nationwide Campus project (1995-2000), which was organized and administered by CRUI, the Italian Rectors' Conference, and funded by the European Union. The Campus project applied quality management procedures similar to those contemplated by the ISO 9000 family of standards to around a hundred diploma programs offered at twenty-odd universities in central and northern Italy. It was followed by a sizable number of Campus-like projects funded by regional administrations. Subsequent initiatives included a three-year trial using a self-evaluation model for around 60% of the degree programs offered by the University of Bologna, the SINAI self-evaluation pilot project involving several engineering degree programs, the VAI project covering most of the degree programs at the University of Siena, and the CampusOne project launched by CRUI for academic years 2001 through 2004.

Financed using proceeds from UMTS telecommunications licenses which the 2001 Budget Act (Law 388 of December 23, 2000) earmarked for programs designed to promote

innovation, *CampusOne* is a three-year experimental project focusing specifically on new degree programs, where it follows through on the innovations introduced as part of the reform of higher education set in motion by Law 509/99. *CampusOne* addresses all branches of learning, providing all universities, and those in southern Italy in particular, with support and funding as they put the principles of the reform into practice. *CampusOne*'s main goal is to help universities take full advantage of advances in information and communication technologies (ICT), in education management, and in the links between education and employment. In all of these areas, it reflects the changing view of quality established by the "Vision 2000" system (UNI EN ISO, 2000), which expands the scope of the essentially process-oriented approach of the earlier ISO 1900:1994 version to include a greater emphasis on product quality.

### 3. The international scene

Evaluation and accreditation is supported by a complex and many-tiered doctrinal apparatus, while the literature on the subject is equally vast.

Nevertheless, certain essential trends have emerged in Europe's evaluation and accreditation efforts, thanks to the lively cross-border exchange of ideas and the leadership shown by several key countries.

As shown in a comparative study (Gola 2003) of representative, though widely disparate, approaches to evaluation (CNAVES 2000, CNVSU-MIUR 2001, Consejo de Universidades 2002, CRE-COLUMBUS - SECAI 1996, CRUI 2002, Estonia 1998, Phare / ETF 1998, SINAI 1999, QAA 2000, VSNU 1999, ZEvA 2001), many European countries have attempted to evaluate undergraduate degree programs at different times and from different perspectives. The models used have shared a number of fundamental concerns, though the emphasis placed on each has varied from country to county. Thus, all of these models have:

- Established educational goals in terms of their relevance to future employment;
- Specified learning outcomes, i.e., the knowledge, understanding and skills that students are intended to develop. Considerable attention has also focused on student assessment techniques, particularly in central and northern Europe;
- Attempted to ensure that available human and material resources are consistent with the intended learning outcomes;
- Monitored student admissions, progression and placement data, and collected students' and graduates' opinions regarding their educational experience.

Other types of information contemplated by these models include internationalization, academic support for students, career assistance, etc..

The approaches which do not fit into this pattern include:

- Institutional evaluations such as EFMD EQUIS 2004, EFQM 1999, NOKUT 2003, and OAQ 2003-b, all of which differ widely. The EFMD EQUIS 2004 model, for instance, relies heavily on the kind of information indicated above in evaluating degree programs, whereas the EFQM 1999 model is at the opposite end of the spectrum, as its highly specialized criteria and language are drawn from the world of management;
- The mixed CACEI 1996 system, which sets out to evaluate engineering degree programs at a level of detail which extends to specifying requirements for course content and laboratory equipment. Similarly, the plethora of procedural and organizational information it requires turns this into an institutional evaluation method, and one which is complex in the extreme<sup>3</sup>.

Degree program evaluation and accreditation must also bear another requirement in mind: the Diploma Supplement called for by the 1997 Lisbon Recognition Convention (Council of Europe, Unesco 1997). As its name implies, the Diploma Supplement is a document attached

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<sup>3</sup> A single example will suffice: there is even a whole set of parameters (Personal Académico, Remuneraciones) dealing with faculty pay and how it affects teaching performance, academic merit and living standards.

to a higher education diploma which is designed to provide a description of the nature, level, context, content and status of the studies that were pursued and successfully completed by the graduate<sup>4</sup>.

Additionally, consideration must be given to the criteria for obtaining the ECTS label, i.e., the Information Package/Course Catalog which provides the student with information concerning the institution, its degree programs, and descriptions of each course (European Commission, 2003).

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<sup>4</sup> Article VIII.1: Each Party shall provide adequate information on any institution belonging to its higher education system, and on any programme operated by these institutions, with a view to enabling the competent authorities of other Parties to ascertain whether the quality of the qualifications issued by these institutions justifies recognition in the Party in which recognition is sought.

Article IX.3: The Parties shall promote, through the national information centres or otherwise, the use of the Unesco/Council of Europe Diploma Supplement or any other comparable document by the higher educational institutions of the Parties.

## 4. Evaluation and Accreditation

### 4.1 Definitions

**Evaluation** of a program or action (a degree program, in our case) is a cognitive activity that:

- Makes it possible to express an informed judgement about the degree program,
- Is carried out according to clear, explicit procedures, and
- Is intended to produce effects on the degree program.

Evaluation may be **formative** or **summative**:

- a) Evaluation is **formative** if its purpose is to improve the program or action, to organize the processes involved more effectively, to make changes in mid-stream when things do not seem to be working. Formative evaluation is essentially based on qualitative judgements by experts, though it also relies on data and indicators. Typically, it concludes with recommendations by the evaluators, who in a sense thus participate in the program or action and share responsibility for it. For this type of evaluation, continuous monitoring and improvement are more important than ranking the degree program's relative merits.
- b) Evaluation is **summative** when it is concerned with accountability<sup>5</sup>, with certification, with summing up the entire program or action. A summative evaluation relies heavily on data and indicators, and concludes with a value judgement about the program's (or action's) overall worth.

**Accreditation** has several meanings:

- In the strictest sense, it refers to professional accreditation, which determines whether a program or qualification is accepted as granting access to a particular profession<sup>6</sup>.
- More broadly, it refers to academic accreditation, which declares that certain stated quality thresholds have been surpassed (i.e., in the degree program's educational goals, processes, outcomes, organization, services, and so forth<sup>7</sup>).

However, the term is also used in a wider sense: according to one general definition (Hämäläinen et al, 2001) “the term **accreditation** ... expresses the abstract notion of a formal authorizing power, acting through official decisions on the approval (or not) of institutions or study programmes”.

Accreditation can also be seen as an extreme form of summative evaluation, though it differs from evaluation in that it concludes in a verdict which is either “yes” or “no”, “pass” or “fail”.

Accreditation criteria codify the principles that the higher education institution must abide by, and translate into a set of statements – which may be qualitative or quantitative – which

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<sup>5</sup> In stressing accountability, this type of evaluation will seek to determine whether what is being done in the degree program is made clear to stakeholders.

<sup>6</sup> Example in (Ordem dos Engenheiros 1994).

<sup>7</sup> Example in (ABET 1996, 2003).

provide an understanding of how and to what extent these principles are followed. Consequently, accreditation must be based on criteria or standards that are formulated as clearly as possible.

As mentioned above, accreditation is often described as a public statement that a certain quality threshold has been reached or exceeded (Campbell *et al.*, 2000; Phare ETF, 1998). Arguably, however, accreditation aims at achieving quality simply by ensuring that minimum standards are reached (Harvey, 1999).

## **4.2 Institutional Evaluation and Accreditation**

Institutional evaluation and accreditation examine the degree-granting institution<sup>8</sup> or some part of it such as a particular school, college or branch that organizes degree programs. Successfully completing the evaluation and accreditation processes gives the institution a “license to operate”, with implicit recognition of the quality of its degree programs.

These processes consider elements that, taken together, provide an indirect estimate of the institution's potential for granting degrees which reflect the cognitive tools actually acquired by the student: tools that pave the way to the professional competencies the student must develop.

This estimate is indirect because it is based on “environmental” factors, which may be associated with minimum requirements such as those specified by MIUR-CNVSU and last updated in Ministerial Note No. 995 of July 3, 2003.

Institutional evaluation and accreditation focus primarily on prerequisites or eligibility requirements such as:

- Faculty qualifications and size
- Research and scholarly production
- Education management structures
- Infrastructural and human resources (information technologies, libraries, appropriate equipment and facilities)
- Policies for orienting and supporting students, from enrolment through graduation
- Means for monitoring, analyzing and reviewing academic provision.

In countries (such as Italy) where the educational system is predominantly public, institutional evaluation and accreditation are seen as a mechanism for regulating academic provision and for determining eligibility for public funds.

## **4.3 Degree program evaluation and accreditation**

Degree program evaluation and accreditation examine individual educational programs. A favorable verdict establishes that the degree program's aims are appropriate and are pursued effectively: that the degree program prepares the student to acquire professional competencies<sup>9</sup>

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<sup>8</sup> Examples: EFMD 2004, CRE 1995.

<sup>9</sup> Throughout this document, the term “competencies” refers to the knowledge and skills that apply to a working context. Taking professional competencies as a goal, however, does not mean training only for a specific profession: knowledge and skills can also be developed which will enable graduates to engage in lifelong learning, acquiring further competencies as they are needed.

by developing appropriate knowledge, understanding and skills, and assessing how well they have been transmitted and acquired.

Degree program evaluation and accreditation focus on how educational provision is designed and delivered, and specifically on<sup>10</sup>:

- Educational goals in relation to future employment
- Course content, teaching methods and student assessment methods
- Resources available for the program
- Program monitoring and analysis.

Alternatively, degree program evaluation and accreditation, like their institutional counterparts, can use an approach based entirely on gauging whether an organization has been put in place which plans, implements and monitors all of the processes involved in selecting the degree program's aims, content, methods and resources.

In this case, evaluation criteria do not apply directly to tools and outcomes, but deal with the system of processes. Particular attention is directed to determining whether responsibilities and decision-making processes are clearly defined, whether the degree program is well integrated and well connected with the institution's administration, whether it demonstrates a high degree of accountability, whether information is analyzed and made available at the appropriate levels of responsibility, and whether routine procedures exist for monitoring indicators and using them to improve the program.

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<sup>10</sup> This is in line with the CNVSU recommendations recently incorporated in MIUR Ministerial Note No. 995 of July 3, 2003, which requires “*the adoption of a quality assurance strategy that sets forth appropriate criteria for:*

- *Delivering education services meeting specific stakeholder needs,*
- *Specifying appropriate student-to-teacher ratios, and*
- *Ensuring that sufficient facilities are available and fit for use.*

The Note also requires that students be “provided with effective counseling, career guidance and tutoring to prepare graduates for employment”.

## 5. Quality assurance measures

### 5.1 Quality of education

There is no simple definition of the **quality of education** in a university degree program.

Criteria vary according to the discipline concerned, the type of educational activity in question, and to the importance which the particular stakeholders involved attach to any given type of content or method.

Whatever the purview, however, three **central factors** must take pride of place:

1. Whether the degree program matches the expectations of society, professional institutions, prospective employers and the labor market.
2. Whether educational goals are met, and
3. The learning outcomes achieved by the student.

The *first factor* calls for finding out what society and institutions require. It calls for specifying the main **professional roles** open to graduates in language understandable to stakeholders, and stating the **competencies** needed to fill these roles. It also calls for identifying the major stakeholders who have an interest in the education that the degree program is designed to give the student, and working together with these stakeholders to determine whether the stated **competencies** will in fact enable the student to fill the envisaged **role**.

The *second factor* requires that the degree program translate its requirements into **learning outcomes** expressed in the language of education specialists. Basically, this translation is a question of planning groups or sequences of courses whose content will make it possible to build up the **skills, understanding and knowledge**<sup>11</sup> (both procedural and declarative knowledge) needed to achieve the goals and develop the required competencies. It also requires that each course module establish prerequisites, objectives, content, methods, contact hours and student assessment procedures that are compatible with those of the other modules associated with it and the degree program's overall aims.

The *third factor* requires that the student be exposed to a variety of educational methods, work conditions, human and material resources, workloads, contact hours and forms of support that combine to provide a **learning environment** which is conducive to achieving the educational goals. It also requires that student assessment methods be capable of determining if and to what extent the educational goals have in fact been turned into **learning outcomes**.

The degree program must have a solid, competent organization, i.e., one capable of designing and planning provision with an eye to the **central factors** described above. Additionally, the organization must be able to **monitor, correct and improve** provision on the basis of clearly delegated responsibilities and documented, verifiable criteria.

To exercise this type of control effectively, the degree program must:

- Coordinate the many different types of learning experience assigned to faculty members (lectures, workshops, tutorials, seminars, projects, field work and so forth), making sure that they are mutually compatible, in line with the program's aims, and consistent with available contact hours and resources;

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<sup>11</sup> In addition to subject-specific skills, the degree program may also consider transferable skills.

- Provide means for checking that teaching methods are effective, gauging student progress in terms of quantity, quality and time;
- Monitor the professional outlets for degree program graduates and placement data for those who do not progress to further study.

We can be reasonably confident that the degree program maintains standards for **educational quality** if the attention given to the **central factors** and to **control** (i.e., to monitoring, correction and improvement) is documented through a sufficient quantity of pertinent, reliable and verifiable evidence.

In this way, the degree program provides the school that administers it and the parent institution with the grounds they need in order to assume – again with a reasonable degree of confidence – ultimate responsibility for guaranteeing:

- That the qualification gained through the program meets expectations for the professional role to be filled,
- That level of the qualification awarded in its name is appropriate to actual student achievement, and
- That the learning environment is of a quality that enables the student to reach this level.

In addition, it provides a range of information to the program's constituencies, viz.:

- Society, institutions and other stakeholders,
- Prospective students,
- Partner universities concerned with mutual recognition, and
- The international labor market.

Through this information, all of these constituencies can arrive at an informed judgement concerning the degree program's aims and outcomes, thus facilitating academic and professional recognition. Such information also ensures that the qualifications gained by the student are comprehensible in other educational contexts, making them easier to appraise and improving graduates' employability in their home countries and abroad.

## **5.2 The processes**

Quality assurance measures can be organized into a set of formal processes for controlling the degree program. These processes can be classified according to the type of activity they control as follows:

### **a) Basic processes**

- External needs (macro-planning: stakeholders, professional roles to be filled, the competencies needed for these roles)
- Educational program (micro-planning: learning goals, the knowledge, understanding and skills to be imparted to the student, how goals are broken down by course and subject, course content and teaching methods, student assessment)
- Human and material resources (faculty, support staff, infrastructures, facilities and equipment)
- Monitoring, Analysis, Review

The basic processes are the most complex, and mastering them calls for a high degree of flexibility and ability to adapt to the specific conditions and regulatory constraints affecting the degree program. Moreover, they produce results through multiple iterations

that do not lend themselves to a rigid procedural approach. With the possible exception of the Review process, these processes should be documented on the basis of factual “evidence” alone.

### **b) Support processes**

- Degree program administration
- Communication and information management
- Student orientation and admissions procedures
- Cooperative education, work-study and off-site program management
- Tutoring service management
- Postgraduate services
- Distance learning programs (where applicable)
- Data collection, i.e., acquiring information about the degree program and graduate placement for monitoring and analysis

Unlike the basic processes, support processes are shared by different degree programs offered by the same school or institution. They may also be handled by a separate support staff. These processes are controlled through formal procedures and documentary evidence.

The basic and support processes are flanked by a number of “**technical**” processes, which need only be assessed for the institution as a whole or for the particular site concerned:

- Site management and secretarial services
- Economic management (budget monitoring and economic-financial reliability)
- Function management
- Resource management
- Degree program information services

### **5.3 The tools**

The tools must be capable of detecting quality problems, and distinguishing between high and low quality. They must provide the degree program and the institution with an objective basis for self-evaluation and taking corrective action. In addition, they must foster a healthy culture of quality, highlighting the responsibilities, functions and tasks that bring faculty, support staff and students together with a sense of shared endeavor.

The tools that underpin an evaluation/accreditation model fall into three basic categories:

#### **1. Quantitative indicators**

Certain quantitative “performance” indicators are essential: a partial list is shown in Table D1. They are best organized at some central level within the organization, where they can be generated uniformly and circulated to the structures to be evaluated or accredited. As they are statistical in nature, they can be used (with the necessary caution) for the kind of rankings and comparisons that most people would regard as objective. However, they must be collected, processed, correlated and compared in a professional manner. They lend themselves to summative evaluations and the like, including those that are frequently updated.

## 2. Quality judgements by experts

As in scientific research, many of the factors affecting the quality of educational processes cannot be reduced to quantitative indicators, or cannot be expressed entirely in such terms. They thus require the professional judgement of experts: researchers, professors and professionals of proven experience. These experts' credibility is greatest when they analyze situations in their own area of competence. Expert judgements are appropriate for constructive evaluations, generally expressed as comments and suggestions for improvement. On the other hand, they are less suitable for establishing rankings and scales of comparison. This type of evaluation is also a costly and time-consuming process, and can thus be repeated only at infrequent intervals (e.g., once every five years).

## 3. Review of QA procedures

This type of review determines whether a planned approach is implemented which keeps the system under control. Neither the provision's aims and content, nor its learning outcomes, are evaluated directly: the implicit assumption is that correct management will automatically deploy all of the controls that make sure shortcomings are analyzed and corrected, propelling the system along the road towards improvement. As the method is standardized, it is easier to find experts who can carry out this type of evaluation, doing so in less time and at lower cost. On the debit side, these experts are more likely to deceive themselves about the real nature of what they are seeing. By focusing on purely procedural aspects, there is a risk that they will become bogged down in questions that have little relevance to quality as it is understood by specialists in higher education.

An evaluation/accreditation model must use a combination of tools drawn from the three “types” we have just described. Which tools are chosen will depend on the aims that the evaluation/accreditation process intends to achieve, the kind of information that can in fact be collected, and our value-for-money expectations for the process.

## **5.4 The INFORMATION MODEL**

Three requirements must be emphasized:

- The institution and its degree programs must be able to choose the features of their quality management system independently, as this system must be adapted to their size, academic aims, history and local context. The same is true of the information which will be needed to highlight quality factors and underpin control and improvement. The institution owns its quality management system, and must be able to be evaluated/accredited on the basis of this system.
- Quality management must not consist only of inspections, audits and controls. Rather, it must inform the degree program's day-to-day operations, becoming an open window on the institution.
- The degree program must provide the outside world with a basic set of uniformly organized information that enables stakeholder to make informed judgements, helps orient prospective students, and facilitates second-party and third-party evaluation/accreditation.

Meeting all three of these needs calls for an approach based on permanent monitoring: the degree program must be asked to produce and maintain an INFORMATION MODEL that contains all the qualitative and quantitative parameters needed to arrive at an informed judgement about the degree program's aims, methods and the learning environment provided to the student.

Together with the minimum requirements contemplated by Ministerial Note 995 of July 3, 2003, the INFORMATION MODEL must focus primarily on the **basic processes**.

While this INFORMATION MODEL is necessarily a public document, it can be flanked by a periodic “Self-evaluation Report” prepared exclusively for parties inside and outside the institution who are involved in any form of evaluation and accreditation. This Report would describe quality factors and the actions involved in control, highlighting the degree program's strengths and weaknesses, corrective measures, review activities and follow-up, and their effects over time.

The purposes and public nature of the INFORMATION MODEL suggest that it be *integrated with the standardized description of the provision offered by each degree program* required by MIUR. This would prevent duplication of effort on the part of the universities and make it easier for the public to find the information it needs, as sources would otherwise tend to proliferate. In practice, a “home page” similar to that now used to describe the provision, but with a few additions, would contain links to a series of sub-pages with the supplementary information that the Model brings together and organizes. Those who compile the page will thus be able to enter all information in a single operation, while viewers will be able to find everything they need starting from the provision home page.

The **support processes** are not described in the INFORMATION MODEL. They can be covered in the “Self-evaluation Report” and in degree program reviews, and can be assessed during any accreditation audits expressly required by other funding bodies.

The INFORMATION MODEL is thus the foundation for all future evaluation/accreditation processes. It must satisfy minimum requirements for content and form so that degree programs of the same or similar type offered by different institutions can be readily compared.

These are the concepts underlying the proposed INFORMATION MODEL presented below, which marshals the essential information that provides the basis for regarding a degree program as “assessable for accreditation purposes”.

## 6. The INFORMATION MODEL: content, addressees and application

The Work Group believes that a reasonable level of confidence in the quality of a degree program can be ensured through documented control of four key dimensions:

- External requirements and learning outcomes
- Teaching, learning and assessment
- Resources and services
- Monitoring, analysis and review

Choosing a particular set of dimensions means:

- a) Deciding that these dimensions, however interdependent they may be, are the best way of describing the phenomenon to be evaluated: the axes that allow us to find our way through what is essentially a multi-dimensional space;
- b) Acknowledging that each axis must be explored using an appropriate variable, which may be quantitative or qualitative.

It should be stressed, however, that exploring an axis or a dimension does not mean imposing a particular scale for this variable: rather, its range should be established together with the stakeholders whom accreditation concerns.

To keep the amount of ground that must be covered in exploring each dimension within manageable limits, but ensure that no aspect that could be essential to accreditation is overlooked, the Work Group has linked each dimension to a mutually uniform set of basic factors.

The Group has also identified the types of evidence that must be gathered in exploring these factors and the dimensions linked to them:

- Allocation of responsibilities
- Interactions with outside stakeholders
- External requirements
- Intended learning outcomes and associated course work
- Entry qualifications
- Curricular content
- Contact hours
- Faculty qualifications
- Infrastructures
- Student enrollment and progression data
- Data reflecting the satisfaction expressed by students participating in a program (as required by Law 370/99) or about to graduate
- Job placement data
- Degree program analysis, monitoring and review

These types of evidence provide a minimum set of complementary vantage points, opening windows on the varied landscape that is the degree program. Informed by achievable goals, they thus present a clear view of the processes, organizational factors and attainments that are most important to the quality of educational provision.

Dimensions, basic factors and evidence are summarized below:

**The INFORMATION MODEL: Dimensions / Factors / Evidence**

<b>Dimension</b>	<b>Factors</b>	<b>Required evidence</b>
<b>A</b> <b>External requirements and learning outcomes</b>	Stakeholders with whom external requirements were identified Requirements identified: professional roles and the competencies needed to fill them Intended learning outcomes: knowledge, understanding and skills the student is expected to gain, and which are needed to develop professional competencies <sup>12</sup>	Table A1: Interactions with external stakeholders Table A2: External requirements Table A3: Intended learning outcomes and associated course work
<b>B</b> <b>Teaching, learning and assessment</b>	Characteristics of students at enrollment Program structure and content Teaching materials and methods Student assessment methods	Table B1a, B1b: Entry qualifications (selective admissions, orientation) Table B2: Curricular content Table B3: Contact hours Annex II: Course description
<b>C</b> <b>Resources and services</b>	Faculty qualifications Technical and administrative support Infrastructures (lecture halls, classrooms, laboratories, libraries, facilities, equipment, etc.) Student guidance, counseling, academic support and welfare services	Faculty CVs: <a href="#">hypertext link</a> in Table B2 Table C1: Locations
<b>D</b> <b>Monitoring, analysis and review</b>	Student intake and progression (internal effectiveness) Student and graduate satisfaction Professional outlets for graduates (external effectiveness) Data analysis and commentary Periodic review activities	Table D1: Student enrollment and progression data Further information ( <i>cf.</i> Table D2) <sup>13</sup> Opinions of students participating in or about to complete the degree program Job placement data Table D3: Degree program analysis, monitoring and review

<sup>12</sup> The UK's QAA has developed “subject benchmark statements”, which provide detailed descriptions of the attributes, skills and capabilities that a graduate with a degree in a specific subject is expected to have.

<sup>13</sup> Further information such as that required for the Diploma Supplement may be added in Table D2. The need for such information should be established together with the National Student Records Office.

Based on the dimensions, factors and types of evidence outlined above, the example of an INFORMATION MODEL shown in the following pages is designed specifically for three-year first cycle degree (bachelor or equivalent) programs. Through the experience gained at this level, the model can then be extended gradually to the other types of degree program envisaged by the higher education system. Obviously, certain additions or changes will probably have to be made to the basic INFORMATION MODEL in order to adapt it to the various levels of provision, though its essential form will be retained.

In particular, it is advisable that the INFORMATION MODEL developed for second cycle degree (master or equivalent) programs include space for documenting how the program's educational provision is informed by **research and scholarly production** by the school and its faculty members (for example, this could be accomplished by combining the factors considered for dimensions B and C). Links with other university research databases and information systems can also be provided for this purpose.

To encourage concision, the INFORMATION MODEL provides a set of tables for presenting the required **evidence**.

*The Work Group has formulated a number of recommendations and guidelines for using the INFORMATION MODEL and for adapting it to future accreditation needs:*

1. The INFORMATION MODEL should be accessed from the online program description provided on the MIUR website, and completed using links from this description to each table. An example of this navigation sequence is given in Annex III.
2. The INFORMATION MODEL'S **primary addressee** is CNVSU-MIUR. The Work Group **recommends** that CNVSU-MIUR regard the data provided through the INFORMATION MODEL as the indispensable prerequisite for enrolling students in a degree program and the basis for initiating the accreditation process. The Work Group also **recommends** that CNVSU-MIUR investigate sampling methods or other targeted procedures for determining whether the information provided through the model reflects actual practice.
3. **Further addressees** include all of the parties who have an interest in the degree program's aims, methods and outcomes: consequently, the document must be publicly available online. In this way, it will also be used for orientation, providing prospective students with the information they need to choose the program that best meets their needs.
4. Extracts from the INFORMATION MODEL regarding the courses completed by the student can provide the data required for the Diploma Supplement (MIUR 2001) and the ECTS label.
5. The INFORMATION MODEL is built around two basic concepts:  
*fitness of purpose / fitness for purpose*

Within the limits contemplated by law, each degree program is free to choose how these concepts are put into practice. Consequently, the Model does not envisage any ideal pattern for degree programs and **makes no attempt to establish a ranking system of any kind.**

6. If the university intends to use the evidence provided by the INFORMATION MODEL for an internal review, it will ask the degree program to supplement this evidence with an in-depth analysis of the dimensions and factors involved. This analysis will culminate in a “Self-Evaluation Report” which can be accompanied by external assessments conducted using internationally accepted approaches by independent experts<sup>14</sup>.
7. The Work Group urges CNVSU-MIUR to take action to ensure that degree programs undergoing accreditation by public or private organizations for some special purpose (e.g., regional accreditation) can use the evidence provided through the INFORMATION MODEL as a basis, adding supplementary information as necessary.

*A number of factors must be weighed before we will be able to determine how effectively the evidence provided through the INFORMATION MODEL can be used to establish and implement accreditation thresholds: the prospects identified by CNVSU-MIUR, feedback from the first attempts to apply the Model, and comparison with similar initiatives at the national and European level<sup>15</sup>. The Work Group thus believes that it is too early to draw definite conclusions in this connection<sup>16</sup>.*

8. Even at this early date, however, it is clear that the INFORMATION MODEL can be used to compare similar degree programs only if the evidence it provides is combined with a thorough analysis guided by independent experts.

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<sup>14</sup> The Work Group suggests that CNVSU consider the advisability of supplementing the evidence provided through the Information Model and quantitative analysis with the results of an in-depth analysis of the dimensions and factors guided by independent experts for closely related degree programs (this could be carried out on an experimental basis, drawing on the experience gained in the CampusOne project).

<sup>15</sup> Communiqué of the Conference of Ministers responsible for Higher Education in Berlin on 19 September 2003, section headed “Quality Assurance”;  
[http://www.cruis.it/Internazionalizzazione/data/allegati/links/964/POL\\_BP\\_Communique\\_final.pdf](http://www.cruis.it/Internazionalizzazione/data/allegati/links/964/POL_BP_Communique_final.pdf)

<sup>16</sup> When analyzing complex structures, the effects of their behavior cannot always be gauged simply and straightforwardly in terms of statistically observable repercussions on the populations involved (e.g., pass rates, program completion time, etc.). In such cases, all we can do is use statements and documentation of the kind discussed here to record whether or not an action has been performed or a requirement has been met. If it has, we can then evaluate how complete it has been. As for quantitative indicators, it is objectively difficult to decide on the weight to be assigned to each indicator, since this will have a significant impact on the kind of input provided for the university's decision-making processes. Benchmarking is no less difficult, and must be based on extensive studies and trials. From the strictly technical standpoint, however, a few preliminary methodological recommendations can be made. For instance, a set of representative statistical indicators can be chosen (and added to later if necessary); the data for each indicator and each uniform group of degree programs (i.e., programs belonging to the same or similar classes) can then be distributed in tertiles. In this way, each degree program will be able to identify its relative strengths (program features falling in the top tertile, for example) and weaknesses (features in the bottom tertile) to its stakeholders, and introduce appropriate improvement measures.

*A few words are also in order concerning whether the processes involved in compiling, certifying and transmitting the information contained in the INFORMATION MODEL should be managed locally by each university, or at the central level.*

9. As discussed in the introduction, each higher education institution should set up a system capable of handling its governance processes and of monitoring, organizing and transmitting information. The Work Group **recommends** that each degree program be overseen by a committee consisting of faculty members involved in the program (see Ministerial Decree No. 115 of May 8, 2002, Article 4, Annex 1), assisted by a dedicated administrative/support staff.
10. Building on the requirements outlined in MIUR Ministerial Note No. 995 of July 3, 2003, **it is recommended** that proposals for new degree programs be accompanied by the INFORMATION MODEL and a report by the internal review board.

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**ANNEX I**

**TABLES**

**Table A1: Interactions with external stakeholders**

Prepared on:  By:  Expires:

<b>Academic body or person representing the institution</b>	<b>External stakeholders</b>	<b>Documents on record</b>	<b>Document availability:</b>
<i>Name of body / Date or frequency of interaction</i>		<i>Title ... .., date ...</i> ... <i>Title ... .., date ...</i> ... <i>Title ... .., date ...</i> ... (maximum of 5 documents)	<i>Place / person</i> ... .. ... .. ... ..

**Academic body or person representing the institution ...** Example: the degree program steering committee which meets with external stakeholders once a year before publishing the course catalog and calendar. Hypertext links to data sheets indicating the names, qualifications, etc., of members may be included.

**External stakeholders:** Names of public and private organizations and companies working in the manufacturing and service industries, institutions, associations and professional societies who were consulted directly or through surveys in the last three years, or who provide regular input. Hypertext links to data sheets indicating the names and qualifications of these group's designated representatives may be included.

**Documents on record:** Minutes of meetings, published decisions, reports, etc., concerning interchanges with external stakeholders in the last three years.

**Document availability:** Details of the person responsible for the documents and of the place where they may be viewed by external reviewers

**Table A2: External requirements**

Prepared on:  By:  Expires:

<b>Main professional roles or further study for which the graduate will be prepared</b>	<b>Competencies required to fill role / functions exercised in role</b>
<i>Indicate a professional role in the type of employment for which the program is designed to prepare graduates.  (maximum of 4 lines)</i>	<i>Describe competencies.  (specify maximum text length, e.g. 10 lines.)</i>
<i>Indicate a second professional role.  ... ..</i>	... ..
... ..	... ..
<i>Further study for second cycle degree in Class(es) ...</i>	<i>Summarize the knowledge, understanding and skills expected of the graduate in each subject area in order to proceed with further study. Descriptions shall be provided in terms of both content and level (threshold, intermediate, advanced).</i>

**Note:** Professional roles and competencies shall be those established together with the external stakeholders listed in Table A1.

**Table A3: Intended learning outcomes and associated course work**

Prepared on:  By:  Expires:

Subject areas	Knowledge, understanding and skills expected of the student in order to demonstrate achievement	Course work and other educational activities For each activity (course, laboratory, off-site work, final examination): link to corresponding course description (see Annex II)
<i>Example:</i> <i>Mathematics</i>	<i>Describe expected knowledge, understanding and skills.</i>  <i>Also describe expected interdisciplinary knowledge, understanding and skills as they relate to subject-specific and professional requirements.</i>  <i>(specify maximum text length, e.g. 20 lines).</i>	<i>Course title</i> <i>Course title</i> <i>Course title</i> <i>Course title</i> ... ..
<i>Example:</i> <i>Physics and Chemistry</i>	... ..	... ..
<i>Example:</i> <i>Law</i>	... ..	... ..
.....		
... ..	... ..	... ..

**Knowledge, understanding and skills ...:** The specific knowledge, understanding and skills that the student must acquire in order to develop the professional competencies described in Table A2.

**Subject areas:** As indicated in Ministerial Decree 509/99, or sub-classifications at the discretion of the degree program.

**Course work and other educational activities:** The same listed in Tables B2 and B3, grouped here on the basis of intended learning outcomes. A course or activity may appear in more than one subject area and outcome grouping.

**Table B1a: Entry qualifications (selective admissions)** Prepared on:  By:  Expires:

Fill in only where admission to the degree program is restricted or selective.

**Mandatory entry qualifications (prior knowledge, understanding and skills)**

*Prior knowledge, understanding and skills shall be established on the basis of the demonstrable learning outcomes achieved through previous schooling.*

*Where desired, universities may determine whether specified outcomes are appropriate through coordination with secondary schools.*

*(specify maximum text length, e.g. one page)*

**Table B1b: Entry qualifications (for orientation)** Prepared on:  By:  Expires:

**Recommended entry qualifications (prior knowledge, understanding and skills)**

*Prior knowledge, understanding and skills shall be established on the basis of the demonstrable learning outcomes achieved in through previous schooling.*

*Where desired, universities may determine whether specified outcomes are appropriate through coordination with secondary schools.*

*(specify maximum text length, e.g. one page)*

**Table B2: Curricular content**

Prepared on:  By:  Expires:

Year	Course	Course Code	SSD/i	CFU	L hours	E hours	A hours	Instructor	SSD/d	Qual.	Years held
1	Course title										
...											
2											
...											
3											
...											

**Year:** “1, 2, 3”; course position in 1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup> year of program; “V” if variable.

**Course:** Course title, [with hypertext link](#) to the course description (see template in Annex II)

**CFU:** Credits

**SSD/i:** Code indicating course subject classification.

**L hours:** Scheduled lecture or classroom lesson hours.

**E hours:** Scheduled workshop hours.

**A hours:** Scheduled hours for other teaching activities (laboratory work, seminars, field trips, etc.).

**Instructor:** Name and surname of faculty member in charge of course, [with hypertext link](#) to CV.

**SSD/d:** Code indicating subject classification of curricular area covered by instructor; “X” for instructors with no designated curricular area or non-tenured faculty.

**Qualification:** code, e.g., PO: full professor, PA: associate professor, RU: university researcher, “S”: tenured instructor at a non-Italian university, “A”: other faculty member.

**Years held:** “1, 2, 3, >3” Number of consecutive years that the course has been held by this instructor.

**Table B3: Contact hours**

Prepared on:  By:  Expires:

**This table may be replaced with a link to online class schedule specifying lesson hours and locations.**

Year	Course / Activity	Start date	End date	Monday Time slot Location	Tuesday Time slot Location	Wednesday Time slot Location	Thursday Time slot Location	Friday Time slot Location	Saturday Time slot Location
1	Course title	Day, month Year	Day, month Year	2:30 PM - 6:30 PM <i>Room</i>		8:30 AM - 10.30 AM <i>Room</i>	2:30 PM - 6:30 PM <i>Laboratory</i>		
...									
2									
.....									
...									
3									
...									

**Year:** “1, 2, 3”; course position in 1<sup>st</sup>, 2<sup>nd</sup> or 3<sup>rd</sup> year of program; “V” if variable.

**Course:** Course title or name of activity, with hypertext link to course description (see template in Annex. II).

**Start date:** Monday of first week of course.

**End date:** Saturday of last week of course.

**Location:** Designation of lecture hall, classroom, laboratory or other site, with hypertext link to Table C1, “Locations”.

**TableC1: Locations**

Prepared on:  By:  Expires:

Location	Type	Capacity	Characteristics and equipment	Address
.....				

**Location:** Designation of lecture hall, classroom, laboratory or other site, with hypertext link to Table B 3.

**Type:** Lecture hall, classroom, computer center, physics laboratory, chemistry laboratory, conference room, etc.

**Capacity:** Seating accommodation or number of work stations.

**Characteristics and equipment:** e.g., for lecture halls and classrooms, specify whether PC projectors or overhead projectors are available and whether area is air conditioned; for laboratories, specify area in square meters and whether air conditioning and exhaust hoods are provided.

**Address:** Data needed to find classroom, etc. Hypertext link to map may be provided.

**Table D1: Student enrollment and progression data**

Prepared on:  By:  Expires:

**Example of survey performed at end of calendar year 2003**

Current academic year: 2003 - 2004 (Y, Y+1),  
Reference year 2003 (Y)

**Full-time students**

	% from academic secondary schools*	% from technical schools*	% from business schools*	% from other secondary institutions*	% from other university programs*	% with final secondary school grade ≥ 90/100*	% with final secondary school grade ≤ 69/100*	% residing out of province*	% residing out of region*	% who have earned no credits	% who have earned 1 to 20 credits	% who have earned 21 to 40 credits	% who have earned 41 credits or more	% who have earned no credits	% who have earned 1 to 40 credits	% who have earned 41 to 80 credits	% who have earned 81 credits or more	% who have earned no credits	% who have earned 1 to 60 credits	% who have earned 61 to 120 credits	% who have earned 121 credits or more				
1.1 – No. of 1 <sup>st</sup> year students registered in A.Y. 2003 – 2004 (Y, Y+1)	*	*	*	*	*	*	*	*	*																
2.1 – No. of 1 <sup>st</sup> year students registered in A.Y. 2002 – 2003 / (Y-1, Y)	*	*	*	*	*	*	*	*	*	II	II	II	II												
3.1 – No. of 1 <sup>st</sup> year students registered in A.Y. 2001 - 2002 / (Y-2, Y-1)	*	*	*	*	*	*	*	*	*					II	II	II	II								
4.1 – No. of 1 <sup>st</sup> year students registered in A.Y. 2000 – 2001 / (Y-3, Y-2)	*	*	*	*	*	*	*	*	*													II	II	II	II
	% w/in 1 yr of legal end date	% with grade ≥100/110	% with grade ≤89/110	% w/in 2 yrs of legal end date	% with grade ≥100/110	% with grade ≤89/110	% w/in 3 yrs of legal end date	% with grade ≥100/110	% with grade ≤89/110																
5.1 – No. of graduates in calendar year 2003 (A)	*	*	*	*	*	*	*	*	*																

**Part-time students**

	Average number of course credits earned in current academic year	% who have earned 0 to 33% of required course credits in current academic year	% who have earned 34 to 66% of required course credits in current academic year	% who have earned 67% or more of required course credits in current academic year
6.1 – No. of part time students enrolled in A.Y. 2002 – 2003 / (Y-1, Y)	◇	II	II	II

\* Data as of 31 Dec., 2003 (31/12/Y)  
 II Credits earned by successfully completing examinations no later than 31 Oct., 2003 (31/10/Y)  
 ◇ Credits earned by 31 July, 2003 (31/7/Y)

**Table D2: Further information (where necessary)** Prepared on:  By:  Expires:

... ..

*Examples: distribution of examination grades, indicators relating to opinions of students participating in program, opinions of students at completion of program, job placements, international exchange programs, etc.*

**Table D3: Degree program analysis, monitoring and review**

Prepared on:  By:  Expires:

<b>Action</b>	<b>Responsibility</b>	<b>Timeline</b>	<b>Documents on record</b>	<b>Document availability</b>
<i>Systematic collection of <u>data on students' academic achievement</u></i>	-	-	Title ... .. , date ... .. Title ... .. , date ... .. Title ... .. , date ... ..	Place / person ..... .....
<i>Systematic surveys of <u>participating students' opinions</u> (as required by Law 370)</i>	-	-	-	-
<i>Systematic surveys of <u>students' opinions at program completion</u></i>	-	-	-	-
<i>Systematic surveys of <u>professional outlets for graduates</u> after receiving degree</i>	-	-	-	-
<i>Review</i>				

**Action:** The four actions indicated above are monitoring processes which higher education institutions are already required by law to perform, or which they carry out on their own initiative. The table is thus a means of summarizing and organizing data which should already be available.

**Responsibility:** Specify ultimate responsibility for each action (degree program coordinator, internal review board, etc.).

**Timeline:** Specify when each action is performed (every semester, once a year, at the end of the three-year program, etc.).

**Documents on record** (format is similar to that used for Table A1): specify supporting documents for each action.

**Document availability** (format is similar to that used for Table A1): for each action, specify availability details for the documents indicated in the preceding column.

## **Annex II: Course Description template**

**Course:** (indicate course title)

**Credits:** (specify)

**Class hours:** (specify)

**Workshop/tutorial hours:** (specify)

### **Teaching aids available to instructors**

(Specify. Examples include video projector, overhead projector PC, video recorder, etc.)

### **Educational goals**

(Describe the course's educational goals, indicating their relevance to the associated subject areas) (see Table A3)

### **Learning outcomes**

(Specify the knowledge, understanding and skills expected of the student, indicating how they correspond to stated educational goals)

### **Organization/content**

(Describe. If the course is organized in modules or complementary teaching activities such as lessons, workshops and tutorials, provide details of each. Where possible, specify amount of credit earned or time devoted to each group of topics)

### **Methods**

(Describe. If the course is organized in modules or complementary teaching activities such as lessons, workshops and tutorials, provide details of each. Specify how methods relate to stated educational goals and intended learning outcomes)

### **Textbooks and readings**

List required texts and recommended reading

... ..  
... ..

### **Assessment methods**

Describe the methods used to assess student achievement progress and final examination procedures.

Indicate grading criteria.

Where applicable, specify pass/fail thresholds.

Specify how assessment methods (criteria, methods, instruments) match the course's educational goals and intended learning outcomes.

*(maximum of 2 pages)*

**Annex III: Structure of the information model accessed from the standard MIUR description page (example)**

**UNIVERSITY**

(drop-down menu)

**CLASS**

(drop-down menu)

**PROGRAM NAME**

(enter)

**SCHOOL OFFERING PROGRAM**

(enter)

(programs may be offered jointly by two or more schools)

**FIRST ACADEMIC YEAR FOR PROGRAM**

(enter)

**MINIMUM DURATION OF PROGRAM**

(enter)

**PROGRAM LOCATION**

(enter)

**→ link to Table C1 – Locations**

**RESPONSIBILITY FOR PROGRAM (Law 509, Article 11, indent 7 b)**

(enter name)

**PROGRAM COMMITTEE (Ministerial Decree of May 8, 2001, Annex 1, Article 4)**

Enter names

Specify names of administrative/support staff (see Recommendation No. 9, section 6)

## PROGRAM SECRETARIAL STAFF

(enter contact details)

## SPECIFIC LEARNING OUTCOMES

(enter)

→ **Link to Tables:**

**A1: Interactions with external stakeholders**

**A2: External requirements**

**A3: Intended learning outcomes and associated course work (sub-link with course descriptions)**

## CURRICULAR CONTENT

(enter)

→ **Link to Tables:**

**B2: Curricular content (sub-link with faculty CVs)**

**B3: Contact hours**

## PROGRAMS WITH SELECTIVE ADMISSIONS: ***ENTRY QUALIFICATIONS***

**1<sup>st</sup> specification level: admission to program is OPEN/SELECTIVE**

If admission is SELECTIVE:

**2<sup>nd</sup> specification level: DESCRIBE PRIOR KNOWLEDGE REQUIRED TO ENTER PROGRAM (SUBJECTS, TOPICS, ETC.)**

**(A LINK TO EXAMPLES OF ADMISSIONS EXAMINATIONS USED IN THE LAST 2/3 ACADEMIC YEARS MAY BE INCLUDED)**

→ **If this field is completed, link to Table B1a: Entry qualifications (selective admissions)**

## PROGRAMS WITH OPEN ADMISSIONS: ***RECOMMENDED ENTRY QUALIFICATIONS***

**- STUDENT SELF-ASSESSMENT TEST OR SIMILAR DOCUMENTABLE TEST (YES/NO)**

**- DESCRIPTION OF KNOWLEDGE AND UNDERSTANDING RECOMMENDED FOR ENROLLING STUDENTS (*SEE ARTICLE 6, MINISTERIAL DECREE 509/99*)**

**- ANY OTHER ORIENTATION ACTIVITIES (LINKS TO APPLICABLE DOCUMENTS)**

**→ If this field is completed, link to Table B1b: Entry qualifications (for orientation)**

### **CHARACTERISTICS OF FINAL EXAMINATION**

(enter description)

### **POSSIBLE EMPLOYMENT DESTINATIONS FOR GRADUATES**

(enter description)

**→ Link to Tables:**

**A1: Interchanges with external stakeholders**

**A2: External requirements**

### **TEACHING REGULATIONS APPLYING TO DEGREE PROGRAM**

(as in current description page)

### **DEGREE PROGRAM ANALYSIS AND MONITORING**

(enter)

**→ Link to Tables:**

**D1: Student enrollment and progression data**

**D2: Further information (where necessary)**

**D3: Degree program analysis, monitoring and review**

### **DEGREE PROGRAM WEBSITE URL**

(enter)

**(optional field)**