Understanding the academic and institutional context

Montpellier SupAgro

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Training Engineering :
Efficient training
For skilled graduates

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Objectives

On finishing this sequence you will be capable of:

- Explaining how and why academic and institutional aspects need to be systematically taken into account as part of the procedure for setting-up a project to create or revise a training course. This includes information on management, social context, rules and regulations and so on.
- Illustrating, with examples, the required procedure for a Master's Degree course: consulting,validation,certification etc
- Warning of common obstacles occurring within the academic and institutional frameworks
- Suggesting solutions to remove obstacles connected to internal management and/or institutional contexts

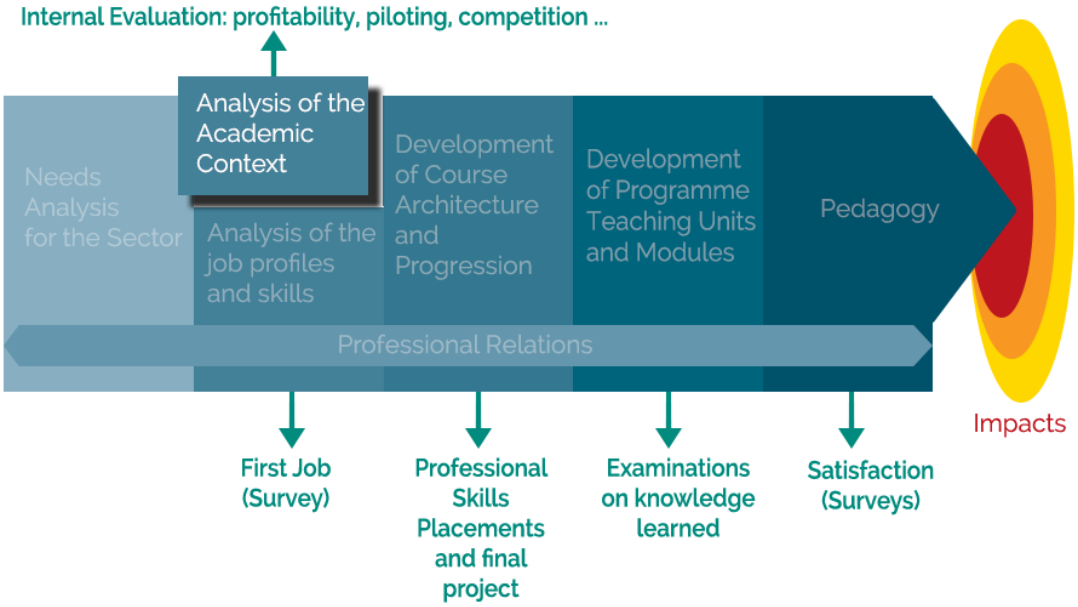
Introduction

"In this sequence the focus is on ***understanding the academic and institutional context****"*

The socio-economic concerns should not be forgotten when designing a new training course and certainly not reduced to merely following regulations for higher education establishments. This said, the state has clearly defined the parameters for higher education establishments and training course engineering projects must fit into that framework.

Further considerations concern the respect of higher education policy and the strategy of each establishment. Coherence and balance are primordial goals concerning social concerns, efficiency and outcome.

This step in training course development involves sharing information and expert opinion based on experience, referring to a variety of contexts and encouraging the exchange of methods used in France and Europe.

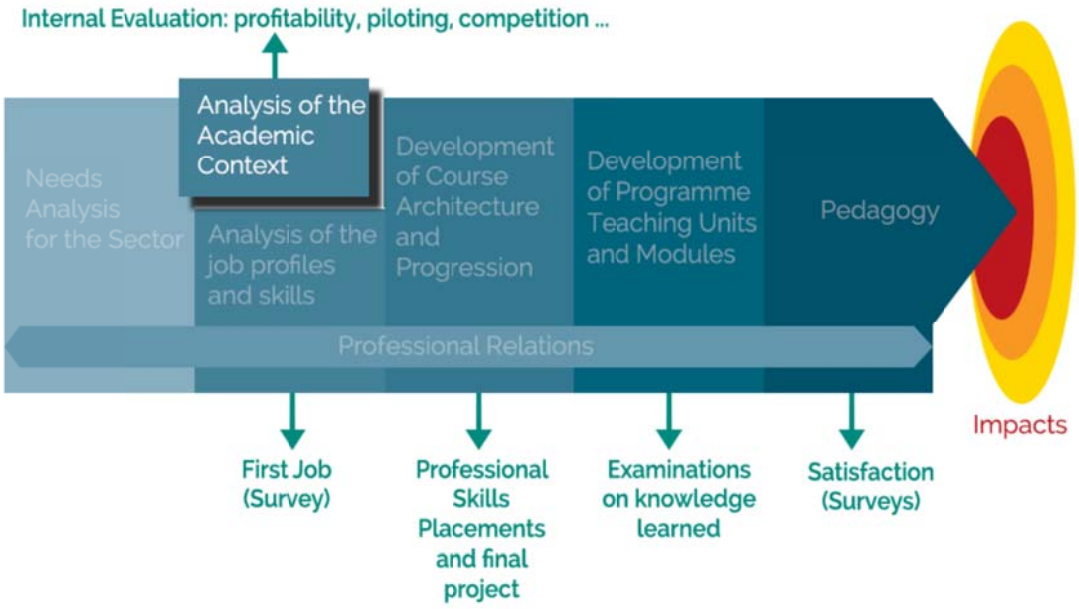


Diploma / Degree Course Design

I

The Main Steps

- The contract with an educational establishment / Political and institutional intentions
- Academic framework, regulatory framework
- Pooling of information from Board meetings
- Information on regulations
- Planning the piloting, dealing with obstacles



The Academic Framework

II

A. Academic Constraints to Take into Account

Collect data; documents, information, regulations, which define a course in terms of:	Collect data; documents, information, regulations needed to obtain approval from the certification authorities:
Course architecture	Proceedings for authorisation / Certificates from authorising boards, HCERES, CTI
Value in ECTS credits, or equivalent, and number of hours Example: *European Credit Transfer and Accumulation System ECTS*[1]	Validation procedure; guides, committees, deadlines, terms of contract, renewal, amendments etc.
Percentage and programming of classwork, practical work, placements and personal work	
Placement goals and requirements	
Mandatory subjects / official certification of language level / broader general education subjects	
Mobility destinations	

1 - http://ec.europa.eu/education/ects/ects_en.htm

B. Example: European B.Sc., M.Sc., Ph.D. Degree Courses

The harmonisation of European higher education courses has lead to all European member countries building courses around the B.Sc. M.Sc. Ph.D. Degree course structure. This encourages the mobility of students wishing to study in a European partner university as part of their degree course or life long learning programmes.

The semester as a teaching unit

University courses are divided into semesters. The French university year is divided into two semesters:

- Autumn semester: September to January
- Spring semester: February to June

ECTS (European Credit Transfer System) credits can be accumulated and transferred to the home university

Each semester has a value of 30 ECTS credits in most European member countries: for a B.Sc. 6 semesters will be validated with a total of 180 credits; for an M.Sc. 4 semesters will be validated with 120 credits (300 when totalled with the B.Sc.credits).

Each subject has a defined number of credits to award, according to time spent studying, including personal work and success in the evaluations.

In accordance with the home university teaching regulations, **credits can be earned by the students during periods of mobility in partner universities abroad**. Credits can also be transferred from one study trajectory to another (following terms of agreement drawn up between two teaching teams).

The university study trajectory becomes more flexible and adaptable to specific student profiles without loss of coherence, thanks to the credit system.

Former French Diplomas

With 120 ECTS credits (B.Sc. level) students are eligible for the French 'D.E.U.G.' diploma. With validation of the first two semesters of an M.Sc. degree course students are eligible for the French 'diplôme de maîtrise'

C. Example: B.Sc., M.Sc., Ph.D. Degree Courses in Senegal

VIDEO

Speech:

In Senegal, the Licence-Master-Doctorate system, LMD, arrived within the universityas a result of a directive of the Economic and Monetary Union of West Africa, including Senegal is a member.

This directive which called on all member states to go back one level in the LMD system. In order to operationalize this directive, the Government of Senegal initiated a law that was passed by the National Assembly, which defines the conditions for implementation of the LMD in the public and private higher education institutions in Senegal.

Subsequently, the law was operationalized through various decrees. First a first

decree that defines the Bachelor's Degree, the second which defines the Master's Degree and the third which defines the PhD. Each of these decrees defines the conditions of access, conditions of validation of lessons and conditions of teaching methods.

Following this, the universities are launched. Some like UCAD (Cheikh Anta Diop University of Dakar), which had a long tradition of teaching, began to set up this system with some difficulty. Today, strong progress was visible.

Other universities are born with the LMD.

D. The Master of Science Degree System in Europe

A National Diploma

The Master of Science is a National Diploma. **The state guarantees the validity of the level of knowledge acquired by the student**.

To be awarded their M.Sc Degree, 120 ECTS credits must be obtained after the Bachelor of Science Degree by the students, over 4 semesters.

The programme

The programme includes:

- Theory
- Method
- Practical work
- Work/Research placements
- Personal work, initiation to research, dissertation and thesis defence

International Validity

Recognition of M.Sc. Degrees emanating from official international university partnerships, is covered by the legislation of 11th May 2011 which states the rules and regulations to be respected.

For further information, in French:

Cf. le Bulletin officiel (BO) n°47 de décembre 2006 sur *les modalités d'élaboration et de délivrance des diplômes dans le cadre du dispositif "LMD"*[2]

Reminder : In France

The '**Visa, procédure de reconnaissance**' delivered by the French Ministry of Higher Education is the highest level of recognition granted to an educational establishment. This title gives National Diploma status to the qualification awarded.

Every six years the eligibility of the educational establishment is reviewed before extending validity of the Visa.

Registered with the RNCP (National Directory of Professional Certificates)a diploma with this official stamp of approval gives access to B.Sc, M.Sc. and Ph.D. Degree courses in France and abroad.

Partnerships with the most prestigious universities abroad can be negotiated thanks to this Visa.

Establishments with 'Visa, procédure de reconnaisance' status guarantee the quality of learning and skills of the students, thus attracting future employers.

2 - http://www.education.gouv.fr/bo/2006/47/MENS0603037C.htm

In order to be eligible for the 'Visa' the establishment must first be officially agreed by the state. Requests must then be submitted to the Ministry of Higher Education for a Visa for each course.

Complement : Further information in French:

- *Le code de l'éducation*[3]
- *Le rôle du CNESER*[4] (Conseil national de l'enseignement supérieur et de la recherche)
- *Le rôle du CNESERAAV*[5] (Conseil national de l'enseignement supérieur et de la recherche agricole, agroalimentaire et vétérinaire)
- *Le site CIEP /centre ENIC-NARIC France*[6] est le centre français d'information sur la reconnaissance académique et professionnelle des diplômes

E. Other Examples from France, Russia and Kazakhstan

Example : Example of Agrocampus Ouest for ECTS credits

Example : Example of course architecture for a M.Sc. Degree course in Kazakhstan

Example : Example of M.Sc. Degree programmes in Russia and Kazakhstan

3 - https://www.legifrance.gouv.fr/affichCode.do;jsessionid=009F70B47F051D8B0E5CFF509AE7EC8C.tpdila10v_1?cidTexte=LEGITEXT000006071191&dateTexte=20100830
4 - http://www.enseignementsup-recherche.gouv.fr/cid53497/le-conseil-national-de-l-enseignement-superieur-et-de-la-recherche-cneser.html
5 - https://fr.wikipedia.org/wiki/Conseil_national_de_l'enseignement_sup%C3%A9rieur_et_de_la_recherche_agricole,_agroalimentaire_et_v%C3%A9t%C3%A9rinaire
6 - http://www.ciep.fr/enic-naric-france

The Strategy of the Establishment

III

A. Goals, Scope of Involvement, Regulations, Obstacles and so on

Advice : The Questions that Need to be Asked:

- Where is there room for improvement in the study trajectories?
  - For whom?
  - Professors and teaching staff?
  - Pedagogical engineers?
  - Course Managers?
- Is there a strategy in place already?
  - A School Project?
  - Choice of topics to be developed?
  - Partnerships?
- Is there financial backing, human resources, logistics available for a project for a new or revised course and its implementation?
  - Can extra staff be hired?
- What is the existing economic policy of the establishment?
  - For the type of course envisaged?
  - Cost efficiency?
  - Cost Management?
  - Budget available?

Fundamental : Do not worry if you do not have a structure in place already!

It is just as important to set up appropriately thought out new courses as it is to set up a supporting framework and engineering procedure which can ensure the continued improvement of teaching in the establishment.

Improving teaching standards and learning

Source : UE report 'Improving the Quality of Teaching and Learning in Europe's Higher Education Institutions' JUNE 2013. Recommendation 1.

B. Examples of Strategic Orientations at Montpellier SupAgro

Example : Contractual Goals and Performance Requirements ('COP' contrats d'objectifs et de performance)

The contract is between Montpellier SupAgro and the French Ministry of Agriculture for the period 2015/2019

Example : Mission, Vision, Ambition

This text presents the shared vision emanating from the establishment and the ambitious intentions for the period.

Example : The Framework for the Strategy

This text presents directions, approaches, goals and performance indicators for the establishment.

In bold type you will find the the goals and indicators stipulated in the contract signed with the State in May 2015.

Internal Institutional Governing

IV

A. Guidance and Support for the Changeover

Fundamental

An Establishment can be pictured as a **micro-society** with formal and informal social interaction influencing the daily organisation of tasks and proffering opportunities for change. The stakes evolve according to historical interests and individual or group interests.

A common vision can be unifying; **a changeover is not merely a technical manoeuvre!**

- Potential stakeholders interests must be analysed: e.g. changes in volume of teaching hours for professors, reviewing teaching methods, competition between units and between people
- Generate innovating ideas and work towards the adoption of new projects
- Team projects, individual projects, with support from the director
- Make available the minutes of organisational meetings for consultation
- Take obstacles to change into account: resistance to changes in course content, teaching methods, competition, partnerships, etc.

Example : Include partnerships as an integral part of Montpellier SupAgro scientific strategy

VIDEO

Speech:

Hi,

My name is Marie-Laure Navas. I am a Professor and was appointed Deputy Director of Montpellier SupAgro. I am in charge of academic and scientific programs. My first work has been to prepare a **new scientific and education strategy**. Now, it is time to put it into action, in our training programs, research and consulting activities.

In my opinion, there are three necessary conditions to achieve this objective:

The first one is that the strategic orientations must be **clear, reachable and understandable** by every one. I think that using 2 or 3 cristal-clear messages for describing a strategy is the best option. For example, the objectives of my institution can be formulated as follows :

- we have to be more focused, because we have too many programs, with too many different scopes;
- we have to be priority- oriented, selecting a limited number of scientific and societal priorities based on our scientific skills,
- we have to reinforce the links between education, research and development.

The second condition is **to identify a limited number of projects**, led by well-recognized leaders, and flexible enough to allow innovation in education, teaching skills, or research...

The last condition is **to schedule self-evaluation**, to look back over our achievements, in order to look into the future.

Each of these conditions corresponds to a different step with different kinds of difficulties:

In my opinion, the only way to define clear, reachable and understandable strategic orientations is to combine both top/down and bottom/up approaches.

The top/down approach is needed to give the broad picture of the new strategy, and to test the major ideas, in order to detect whether or not they are timely.

This top/down approach is also necessary when there are external constraints or demands. For example, we had to take into consideration the recommendation by the French Ministry of Agriculture, which is the supervisory minister of SupAgro, that was to strongly decrease the number of training programs.

On the other hand, **the Bottom/Up approach** is required to collect different points of view, in order to facilitate new innovative proposals; even very different from those originally proposed by the head of the institution. For us, in SupAgro, this approach allowed to define four scientific axes, to detect some flagship programs related to three of them, such a training program and MOOC in agro-ecology, or “Alimentations du Monde “or World Food Systems chair labelled by Unesco.

However, there is no unique and ideal method. Both top/down and bottom/up approaches are necessary to design a global picture, but also to collect new projects, that can slightly shift the initial project.

On top of that, the understanding of the strategic orientations by everyone strongly **depends on the intermediate management**. The role of these managers is to explain the different proposals and to facilitate their dissemination. In my institution, these managers had a tremendous importance explaining why we wanted to define axes allowing to link education, research and industrial partnerships, and how the decision would be built step by step then definitively adopted. This work is always time-consuming but it is worth the effort because it is the only way to get people involved!

Once this general picture is designed, the projects and activities must be identified, and the leaders and teams must be recognized. In my institution, we defined a number of projects, among those two were of major importance:

- the first one was related to changes in numbers of Bachelor and Master programs. We decided that a new group formed by teachers, that we called a diploma committee will be in charge of that project, one for each degree. At the beginning, it was quite hard to get that proposal accepted because teachers are used to working alone or in small groups but after a year, we are really impressed by the work which has been done.

- the second project was related to the **scientific definition** of the transversal axes and the **identification of actions** for each of them. I gave some directions at the very beginning, but soon after, some colleagues proposed a new axis nobody had thought about before. A new theme emerged, as well as new leaders, and that was great.

This step is time-consuming and it is very difficult to decide when to stop. However, the time opened for discussion must be clearly limited to be sure to get a proposal at the end. Once again, the method must be clearly explained at the very beginning.

The last step, corresponding to **the self-evaluation period**, is often forgotten because when some people want to go further, the others prefer a routine! In my opinion, this step is crucial because, of course, it helps to change things but more important, it allows to go back to the people involved. Here again, the support by the intermediate managers is of major importance.

In conclusion, I think that a successful reform is characterized by its flexibility. Pioneering proposals must be made possible because they are often the basis for the changes to come. This requires some flexibility in the administration, but also to detect managers with listening skills and willingness to be open to different opinions.

Open doors by clarifying misinterpretation of the implication of the teaching staff

The people in charge must recognise and reward the professors and teaching staff who bring about significant improvements to the quality of teaching and learning in higher education thanks to their teaching and/or research

Source : UE report 'Improving the quality of teaching and learning in Europe's higher education institutions' JUNE 2013. Recommendation 6.

The Manual for Sequence 3

V

Conclusion

Thanks to the reform in courses at B.Sc, M.Sc and Ph.D. level in so many European and African countries, updating and creation of new courses in higher education must be harmonised to fit within that framework. Project managers must respect the formats and procedures defined in accordance with this harmonisation. The rigorous preparation in the first steps of a project are vital to provide a solid framework for designing the architecture of a course.

Creating or revising a course involves interaction between teams with different skills and different fields of knowledge. The reality of the work environment and the sector must be used to define the content and goals of the course. The team must be built in such a way that solutions can be found to any technical or organisational issues encountered during the engineering phase.

Now you can go back to the homepage:

> Homepage of the Training Course Engineering Module[7]

Continue your training by discovering Sequence 4 :

> Sequence 4: Professionalisation in higher education[8]

7 - http://www.supagro.fr/ress-tice/tempus/index_en.html
8 - https://www.supagro.fr/ress-tice/tempus/IF_Eng/Sequence4/co/Sequence4_Tempus_Angl.html