ASSESSMENT OF ADDITIONAL DIMENSIONS IN THE ACCREDITATION OF RECOGNISED BACHELOR'S AND MASTER'S DEGREE PROGRAMMES:
INTERNATIONALISATION

Programme information

Programme: Master's degree in Artificial Intelligence

Centre: Facultat d'Informàtica de Barcelona (FIB)

University: Universitat Politècnica de Catalunya · BarcelonaTech (UPC)

Date of the site visit: 15/05/2017

Introduction

Accreditations are assessments with the goal of assuring the quality of the educational service provided within the university system according to certain guidelines; they are designed to guarantee minimum thresholds within the dimensions established ("doing what needs to be done properly"). As stipulated in the *Framework for the validation, monitoring, modification and accreditation of recognised university degrees* (AQU Catalunya, 2016), in the case of the Catalan university system the specific procedure for accreditation is set out in the *Guide to the accreditation of recognised Bachelor's and Master's degree programmes* (AQU Catalunya, 2016). Nevertheless, accreditation of degree programmes is less conducive to encouraging continual improvement beyond these established minimums (Westerheijden et al., 2006).

On the other hand, the accreditation of additional dimensions presumes that minimum Quality levels have already been verified in the accreditation procedure, and the aim of this additional accreditation is to assess whether the dimensions stand out above average levels in specific areas of interest. In the same manner that accreditation provides a vision of quality as perfection (doing what needs to be done properly), these additional dimensions provide a vision of quality as an exception or mark of excellence, which is taken on when embarking on an assessment procedure in order to stand out from other institutions or programmes in specific segments of study or research. Accreditation assessment standards, based on European quality assurance standards, are independent from the operation of other degree programmes in said standard. However, within certain standards, additional dimensions add an element of comparison or distinction. The degree programmes or institutions aspiring to the additional dimension must demonstrate commitment and results that stand out above the average.

The *Guide to the assessment of additional dimensions in the accreditation of recognised Bachelor's and Master's degree programmes* (AQU Catalunya, 2016) provides an explanation of what these dimensions consist of in order to allow interested parties to assess whether

it would be appropriate to apply for the respective accreditation, whilst detailing the entire assessment procedure that has been designed on the context of the European Standards and Guidelines (ESG) (ENQA, 2015).
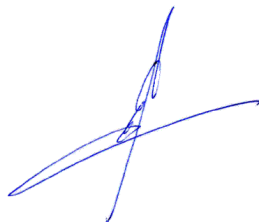
Result

The application for the assessment of the additional dimension of INTERNATIONALISATION has been approved by the Institutional and Programme Review Commission (CAIP) on 26 July 2017, based on the external review report annexed.

The result of the assessment is as follows:

Dimensions	Result
1. Study programme for internationalisation	Compliant
2. Internationalisation of teaching staff	Compliant
3. Internationalisation results	Compliant
Overall rating	**Accredited**

The President of the Institutional and Programme Review Commission

Martí Casadesús Fa

Barcelona, 2 August 2017

ACCREDITATION PROGRAM: ASSESSMENT OF INTERNATIONALISATION (ADDITIONAL DIMENSION)

External review report

Center: Facultat d'Informàtica de Barcelona (FIB)
**Institution: Universitat Politècnica de Catalunya ·
BarcelonaTech (UPC)**
Date of the site visit: 15/05/2017

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A. Introduction

1. Description of the review

Center:	Facultat d'Informàtica de Barcelona (FIB)
Venue:	Barcelona
Code:	08071068
University	Universitat Politècnica de Catalunya · BarcelonaTech (UPC)
Participants	Universitat de Barcelona (UB), Universitat Rovira i Virgili (URV)

Programme (data from 2014-2015 academic year)

4313730 – Master degree in Artificial Intelligence

ECTS	Ex-ante assessment	Delivery start	Places	Enrolment	Type
90	28/12/2012	2012-2013	50	23	Classroom learning

2. Panel composition

Role	Name	Institution
Chair	David Croke	Royal College of Surgeons in Ireland
Academic	Turo Virtanen	University of Helsinki
Student	Alejandra Pérez	Universitat Ramon Llull
Secretary	Concepción Herruzo	AQU Catalunya

3. Aim of the report

This document reports on the analysis conducted by the panel on the internationalisation developed by the accredited master's program taking into consideration the criteria for internationalisation of study programmes included in the GUIDE TO THE ASSESSMENT OF ADDITIONAL DIMENSIONS IN THE ACCREDITATION OF RECOGNISED BACHELOR'S AND MASTER'S DEGREE PROGRAMMES, by AQU Catalunya.

B. Agenda

Monday, 15 May 2017

Time	Activity
08.45 – 09:00	Panel reception
09:00 – 11:00	Panel internal meeting
11:00 – 12:00	Meeting with Faculty Board and the program coordinators
12:00 – 13:00	Meeting with students
13:00 – 14:30	Lunch
14:30 – 15:30	Meeting with academic staff (PDI)
15:30 – 16:30	Meeting with support staff (PAS)
16:30 – 17:15	Panel internal meeting
17:15 – 17:45	Preliminary feedback

C. Assessment of specific Internationalisation dimensions

C1. Study programme for internationalisation

The study programme is designed to encourage knowledge and skills acquisition to favour academic and professional development in international settings. The programme content, the selection of students and the support provided by the institution are aligned to achieving the internationalisation of the programme.

☐ Non-compliant	■ Compliant	☐ Quality-level compliant

1.1 Study programme focus or orientation

The study programme is designed to favour professional development in international settings.

The Masters degree in Artificial Intelligence (MIA) programme is designed to equip students with the knowledge and skills necessary to find ready employment in the broad area of Artificial Intelligence. The critical mass brought to the programme by the three partner universities provides a range of choice in course modules and research opportunities which was identified as a differentiating factor for the programme by the students and staff whom the Panel met. The international focus is maintained through benchmarking with comparable degree programmes elsewhere and through consultation with alumni, industry and professional bodies. The currency of the core content is evidenced by the success of the programme in attracting an international cohort of students. The MIA programme provides a wide range of opportunities for academic exchange mobility which students engage with actively.

1.2 Students

The institution has implemented processes to encourage appropriate selection of students on the degree programme and applies reasonably effective mechanisms (agreements, acknowledgments for learning, etc.) that favour their mobility.

Students are recruited to the MIA programme through a University-level on-line admissions process, with selection based upon academic excellence and English language competence. Though the class sizes are small, the programme attracts approx. 40% international students. The Faculty and the partner universities provide a range of supports to students joining the course, including preparatory courses for students who need input in specific course areas. Academic exchange opportunities are well supported also. Specific 'learning agreements' are prepared to guide students undertaking an academic exchange and to ensure that credits earned at the host university are appropriately recognised and incorporated into the student's transcript. On their return, the students' experiences are assessed through informal interviews and/or surveys.

1.3 Support for internationalisation

The institution has implemented mechanisms to support local and international students which are largely viewed as appropriate by the body of students on the degree programme.

The Faculty has implemented a range of in-course supports for local and international students including welcome sessions, the assignment of Personal Tutors, advice & assistance in accessing facilities on all three campuses and preparatory courses for students who need additional background input on commencing their studies. These measures complement the supports provided in terms of exchange mobility and work placements. Student surveys indicate a reasonable level of satisfaction with the support structures.

C2. Internationalisation of teaching staff

The institution guarantees that the teaching staff on the study programme have a profile incorporating international academic and networking experience to effectively aid in reaching the internationalisation goals set.

☐ Non-compliant   ■ Compliant   ☐ Quality-level compliant

2.1 Teaching staff profile

The teaching staff on the programme include a number of academics that have acknowledged international standing or a track record incorporating stays abroad and who take part in international projects. The body of teaching staff includes a number of foreign academics that take part in teaching occasionally or on a long-term basis.

The Faculty asserted that the percentage of tenured staff holding PhDs from Catalan universities reflects the high concentration of research excellence in Artificial Intelligence in Catalunya. Some members of the staff have graduated (MA and/or PhD) from foreign universities. Each year a number of staff stays at foreign research institutes and universities. A few visiting academics contribute to the programme primarily through the delivery of seminars on annual basis.

2.2 Integration of the programme's teaching staff in international networks

Teaching staff on the programme are involved in international research and/or teaching cooperation networks and make use of agreements for the mobility and exchange of teaching staff.

Academic staff participate in a range of international research collaborations and networks; these involvements are made available via an impressive web-site detailing projects, publications, patent awards, etc.

C3. Internationalisation results

The internationalisation of the degree programme is managed on the basis of a process of continual improvement ensuring satisfactory results by making use of state-of-the-art technologies.

☐ Non-compliant   ■ Compliant   ☐ Quality-level compliant

3.1 Students

The institution reviews the results of internationalisation using qualitative information and indicators, it considers those results and it assesses the effect of the internationalisation actions carried out on stakeholders, along with their level of satisfaction.

The Faculty employs a range of quality assurance metrics and indicators, and implements monitoring and verification processes to identify programme improvements. In total, six different improvement measures are being implemented following a recent global analysis of the MIA curriculum. Student satisfaction surveys are carried out both formally and informally (i.e. by individual staff members), but these do not appear to focus on aspects of internationalisation.

3.2 Graduates

Internationalisation indicator results are positive. The degree programme is on track to being on a par with its international equivalents.

The Faculty reported that graduates of the MIA programme find ready employment in Catalunya and elsewhere. Evidence made available to the Panel showed that 6 of 21 graduates in the 2013-2015 period are working outside of Spain. The graduation rates of the programme are hampered somewhat by the attractive opportunities for AI-related employment during the studies.

3.3 Programme enhancement and sustainability

The degree programme uses new technologies applied to teaching/learning processes to foster internationalisation.

The MIA programme uses a wide variety of pedagogical approaches and technological supports including the virtual learning environment, on-line discussion fora, social media and webinars.

D. Final assessment result

It is the judgement of the Review Panel that the Masters Degree in Artificial Intelligence offered by the Universitat Politècnica de Catalunya - BarcelonaTech is **Compliant** in relation to the Additional Dimension of Internationalisation.

E. Commendations

Study programme for internationalisation

The Panel commends
- The MAI programme offers many specialisations to meet the needs of students.
- A strong network of research collaborations and bilateral exchange agreements.
- The programme is taught in English.
- Additional classes in Catalan and Spanish are offered to students.
- A structured system has been implemented to assess and acknowledge learning acquired by students in the context of exchange / mobility.
- The MAI programmes has been systematically improved over recent years, based on suggestions of monitoring reports.
- The participation of MAI students in the International Conference of the Catalan Association for Artificial Intelligence.
- The programme web-site is now available entirely in English.

Internationalisation of teaching staff

The Panel commends
- The level of internationalisation of the MAI staff in terms of the various rubrics (overseas degrees, research stays and international research projects).

Internationalisation results

The Panel commends
- Ability of the MAI Programme to attract international students.

F. Suggestions for consideration

Study programme for internationalisation

– Greater use should be made of the formal research and exchange networks to increase the number of visiting professors, to increase the number of teaching staff exchanges and to develop innovative seminars and workshops delivered using video-conferencing and other platforms with international partner universities.

– Establish a specific Advisory Board for the MAI programme to leverage the existing connections with industry and to develop proposals for innovation.

– Overall, increase the number of visiting / foreign-national teaching staff.

– Implement a formal system of 'Graduate Tracking' to strengthen their existing Alumni activities and network of collaborators / visitors.

– All students should be required to submit a report and be interviewed on their return from exchange visits; some of reports might be published (with permission) on the programme web-site as a source of peer-to-peer information [video testimonials?]

– Incoming students should have the possibility to undertake courses in Spanish.

– Establish a unitary source of information for research / exchange / internship opportunities for students.

– Rationalise the use of multiple intranets to disseminate course information and materials to the MAI students

– Further develop the coordination of the course time-tables of course provision between the partner universities to lessen the time students spend in travelling between campuses; in this context, it may be possible to concentrate teaching on the Tarragona campus into a single block or blocks.

Internationalisation of teaching staff

– Again, leverage existing research networks to increase exchange of teachers etc.

– Greater support from the partner universities to facilitate the reception of visiting professors.

– Develop bilateral exchange agreements to facilitate teacher exchange.

Internationalisation results

– Increase the opportunities for academic mobility of students and ensure that they are promoted widely.

– Increase opportunities for students to undertake work placements.

– Implement a specific student-facing platform to post job opportunities.

– Develop a set of specific indicators to monitor and follow up on international activity - perhaps a specific survey.

David Croke
Dublin, 28 June 2017