

Outcomes-Based Accreditation of a Maritime Business Program

Professor Bani Ghosh

Massachusetts Maritime Academy (MMA)

The International Maritime Business (IMB) program was introduced in 2000 at Massachusetts Maritime Academy (MMA). It initiated a new era in an institution that had a strong tradition of training seafarers since 1891. The innovative program was designed to educate graduates well-versed in the foundations of both business and maritime worlds that include elements of international trade, logistics, ship chartering, brokerage, IT, legal and regulatory issues of maritime transportation. The emphasis on curricular design is aligned to the educational philosophy of the Academy: Learn–Do–Learn, where practical applications of theoretical knowledge are understood through internships and a sea term. However, unlike the sea going majors like Marine Engineering or Marine Transportation, there was no comprehensive external assessment tool like a USCG mandated license exam in this program. While the students graduating with a degree in International Maritime Business had excellent employment prospects and received positive feedback from internship hosts and student exchange program hosts, there was a growing need for an external outcomes-based assessment tool that would evaluate the quality of education in maritime business at MMA. In 2012, the IMB Department completed a strategic plan that included accreditation by IACBE (International Assembly for Collegiate Business Education), a leading accreditation agency to meet that need. An outcome assessment plan and a self-study were completed in 2013-14 leading up to the actual accreditation journey. This paper discusses the process of program accreditation by an international agency to ensure the quality of education in a maritime institution. The quality assurance process that involves a comprehensive set of principles pertaining to academic resources, education policies and outcome assessment is outlined. The lessons learned along the way, including the road bumps, when shared, can provide valuable insight to other IAMU member institutions that are contemplating similar initiatives now, or in the near future.

Keywords:

Outcomes-Based, Accreditation, Innovation, Assessment, Maritime Business Education

1. Introduction

Founded in 1891 by the legislature as the Massachusetts Nautical Training School, the Massachusetts Maritime Academy (MMA) is one of six state maritime academies in the US. During its 123-year history, the Academy has grown from an entering class of 40 cadets to a fully accredited, four-year, coeducational college granting Bachelor of Science and Master of Science degrees and enrolling approximately 1,200 undergraduate and 100 graduate students each year. It has also expanded beyond traditional sea going Majors like Marine Engineering and Marine Transportation to include programs that cater to the complete spectrum of the maritime industry both sea going and shore based. Introduced in 2000, the International Maritime Business (IMB) major prepares graduates to enter the maritime shipping and transportation industry as a business professional. The program includes elements of international business, finance, logistics, management and transportation with specific expertise in the maritime sector. The IMB program requires the students to complete the two co-ops which provide the students with excellent opportunities to gather practical experience in their chosen field in keeping with the 'learn-do-learn' philosophy of the institution and develop future employment prospects. The Academy also

maintains a regimental system in its student body. Approximately 98% of the undergraduate students participate as cadets in the regiment and reside on campus. This applies to students in all majors, licensed and unlicensed, including students in the IMB program.

However, unlike the sea going majors like Marine Engineering or Marine Transportation, there was no comprehensive external assessment tool like a USCG mandated license exam in this program. While the students graduating with a degree in International Maritime Business had excellent employment prospects and received positive feedback from internship hosts, there was a growing need for an external outcomes-based assessment tool that would evaluate the quality of education in maritime business at MMA. The innovations in knowledge in this field also needed to be systematically incorporated in course offerings. Accreditation of the IMB undergraduate program seemed to be the path forward to achieve these objectives. Accreditation is a voluntary, independent review of an educational program to determine that the education provided is of uniform and sound quality. Being awarded accreditation ensures that a program has been evaluated and that it met the set standards of quality determined by the accrediting organization [1]. The process of accreditation helps identify suitable remedies for inadequacies in the program and take corrective action. For students, accreditation provides value related to not only judging quality of a program, but also obtaining employment, receiving student aid and transferring credits. Espiritu [2] observes that, on average; accredited institutions enjoy 23% higher graduation rate and about 15% higher full-time retention rate than non-accredited institutions.

In 2011, the Department conducted a feasibility study of the accreditation process. It carried out a comparative review of the different agencies for business accreditation in terms of history, orientation, requirements, level of recognition, cost, etc and also determined which accrediting agency would be the best fit. A recognized accrediting agency is one that has been reviewed and determined to meet the standards of an external body, such as USDE (United States Department of Education) or CHEA(Council for Higher Education Accreditation).

This paper traces the journey of a maritime business program accreditation in a traditional maritime school from inception to the submission of the self study. Section 2 discusses the initial phase of the process including the findings of the feasibility study. Section 3 explains the actual application process, the creation of the outcome assessment plan and the departmental self study leading up to the site visit. Finally Section 4 outlines the hurdles that we encountered in making this work in a traditional maritime school and a non traditional business school. It is hoped that our journey will provide some direction to similar programs in maritime colleges that are seeking external accreditation.

2. Early days

Goaded by various academic stakeholders like NEASC (New England Association of Schools and Colleges) and BHE (Board of Higher Education) to embrace some form of program specific accreditation, the IMB Department completed a feasibility study in 2011. The specific objectives of the study included:

- An assessment of the benefits and costs of seeking accreditation
- Comparative review of the different agencies for business accreditation
- Determine the best fit accreditation agency

On the basis of the feasibility study, it was determined that the chosen accreditation agency will be IACBE (International Assembly for Collegiate Business Education). The IACBE option was selected as it was mission-driven and outcomes-based [3]. The philosophy of the IACBE is that academic quality and excellence in business education should be measured in terms of the performance of an academic business unit rather than in terms of academic resource levels. This approach was perfect for a relatively new program like IMB with significant resource constraints. According to the IACBE, although adequate quantitative and qualitative levels of human, financial, and physical resources are essential contributing factors to academic quality, the focus should be on the value of those resources in producing measurable results. The IACBE's approach to accreditation is based on a W. Edwards Deming-Michael Porter framework for quality assurance [4]. In this approach, the IACBE implements an accreditation process that focuses on the outcomes of the teaching/learning process rather than on prescriptive input standards. Also, it was observed that IACBE had accommodated niche and special mission business programs. Given the maritime linked special mission and largely teaching orientation of MMA and size of the IMB Department, IACBE seemed to provide the perfect fit as an accreditation agency.

However, the focus on outcome assessment was not without its challenges and the Department had to redefine itself in order to meet the IACBE guidelines for accreditation. Some of the characteristic features of excellence in business education as defined by the IACBE [5] needed careful consideration and subsequent action by the Department. They are listed below:

- The academic business unit has a clearly defined mission and broad-based goals that are consistent with those of the institution.
- The academic business unit strives for higher levels of overall performance as reflected in its student learning outcomes, operational effectiveness, and the accomplishment of its mission and broad-based goals.
- The academic business unit engages in a strategic planning process.
- The academic business unit has developed and implemented an outcomes assessment process that promotes continuous improvement in its business programs and its operations, and is linked to the strategic plans of both the academic business unit and the institution.
- The academic business unit encourages both internal and external cooperative relationships with other educational units and institutions that are consistent with its mission and broad-based goals.
- The missions of the institution and the academic business unit are effectively communicated to current and prospective students.
- The institution provides resources to the academic business unit that is adequate to accomplish its mission and broad-based goals.
- The curricula in business programs reflect the missions of the institution and its academic business unit, and are consistent with current, acceptable business practices.

Table 1: Accreditation Plan (Fall 2013 – Fall 2014)

Period	Activities
Fall 2013	<p>Data Collection, analysis, preparation and submission of Outcome Assessment Plan and Annual Report to IACBE and application for accreditation</p> <ol style="list-style-type: none"> 1. Coordinate data collection for direct and indirect measures 2. Analyze information and data 3. Prepare Outcomes assessment plan for IACBE submission 4. Complete Round 1 of outcomes assessment for 2012 -13 5. Develop measures for improvement 6. Prepare Annual Report for IACBE submission 7. Prepare an application for accreditation 8. Commence preparatory work for writing the Self Study <p>Action Items:</p> <ol style="list-style-type: none"> 1. Outcomes assessment plan including all appendices submitted to IACBE on 10/10/13 2. Annual Report submitted to IACBE on 10/10/13 3. Application for accredited member status submitted to IACBE on 12/5/13
Spring 2014	<p>Preparation for Accredited Member Status</p> <ol style="list-style-type: none"> 1. Complete Draft Self-Study 2. Complete Final Self Study 3. Complete round 2 of outcomes assessment for 2013-14 <p>Action Items:</p> <ol style="list-style-type: none"> 1. Draft Self-Study submitted to IACBE on 4/30/14 2. Received technical report on Self Study from IACBE on 6/20/14 3. Completed Self Study submitted on 7/20/14
Fall 2014	<p>Site Visit: Final Stage of Accreditation</p> <ol style="list-style-type: none"> 1. Site visit by IACBE team scheduled for 9/23/14 2. IACBE will send site visit team’s report of findings (usually within 2 weeks) 3. Prepare a written response to the summary report

Accreditation status to be granted (if all goes well) in January/February 2015

Once the accreditation agency was chosen and their grading criteria known, we decided on a timeline and accreditation plan to meet the various deliverables as shown in Table 1. The period under review for accreditation was 2013-14.

3. Roadblocks and lessons learned

The commencement of the accreditation process required a thorough review of the IMB program with a view of meeting certain requirement standards in the following:

- Curriculum and syllabi
- Departmental mission statement in conjunction with institutional mission
- Outcomes assessment process
- Departmental information dissemination via college catalog, website, etc.
- Student admission and retention policies
- Level of consultation with various stakeholders (alumni, Advisory Board, employers, students)

Since IMB is not a standardized business program, being rather specialized with a maritime slant, we needed to make certain adjustments to meet the specifications set by a standard business program accreditation agency. We needed to document and justify clearly the unique aspects of the IMB program, consistent with MMA's broader mission.

We soon realized that the process of accreditation came with significant costs, both in terms of time and financial resources. I list below some of the hurdles we had to overcome on the way.

1. The need to adhere to a standardized format, even in terms of creating course syllabi, interfered with individuality of faculty members and faculty complaints of encroachment of academic freedom had to be managed effectively. Considerable time and energy was spent in data collection, information gathering and standardization of course syllabi. We also needed to make some clearly thought out curricular changes to incorporate much needed new courses and introduce more business electives without altering the overall credit load.
2. According to IACBE, the academic quality in undergraduate business programs need to cover some key content areas of business defined as Common Professional Component (CPC) topical areas. These included accounting, marketing, finance, management, economics, legal environment, quantitative methods etc. IACBE required that sufficient coverage is given to all of the CPC topical areas. We needed to identify which CPC topical areas are covered in our course offerings and complete a course syllabus for each required course, clearly demonstrating how many hours were being devoted to each CPC topic in a semester. This proved to be a major hurdle because the Economics and Law courses were housed in the Social Science Department, Business Communication course was controlled by the Humanities Department and Quantitative Methods in Management course was under the Science and Mathematics Department. Since the International Maritime Business Department was relatively new (being created in 2004), we had to

deal with in a situation where certain core CPC topical area courses were historically housed in and controlled by other departments. To get everybody across departments on the same page and provide CPC related data to be compiled for the self study was an unenviable undertaking. Eventually we were able to accomplish this task in a timely manner.

3. Through a series of departmental meetings, we finally established a number of outcomes that recognized three levels of education goals. A timeline also needed to be established for achieving those goals. Once again, achieving unity in diversity was a challenge:
 - Outcomes or goals that apply to all institutions of higher learning (MMA as well as other colleges and universities)
 - Outcomes or goals that apply to all the different majors within MMA (IMB program as well as other programs)
 - Outcomes or goals that apply specifically to the IMB program

Once this was agreed upon, we created and administered the assessment instruments (e.g. a comprehensive exit exam) and collected the relevant data. Wherever, the results fell short of our goals, we took corrective action in an attempt to close the loop.

4. The departmental website had to be completely revamped to ensure transparency and proper dissemination of relevant information to all stake holders. This too required a significant time commitment for the faculty member entrusted with this responsibility. Moving beyond just an abbreviated presence in the college catalog, we were attempting to embrace innovation not just in course offerings but also in terms of how the information was to be disseminated to the various users.
5. We also needed to demonstrate that adequate resources were earmarked for the IMB department. Although, the level of faculty qualifications was not a concern as all four full time faculty members were doctorally qualified and all adjunct members professionally qualified, we did not have an adequate number of full time faculty. A new faculty search was initiated which resulted in the hiring of an additional full time faculty member. IACBE emphasizes excellence in teaching, which depends on appropriate faculty workloads. We had to ensure that the workload did not exceed contractual obligations while preparing for the accreditation process. Wherever possible, faculty members were given release time or additional remuneration for this effort.

We procured information from various administrative departments at MMA in order to ensure the following:

- Work with the MMA Business office to understand the budget development and budget amendment processes of MMA and ascertain what proportion is allocated to the IMB Department
- Gather information from the MMA Facilities department to demonstrate that the classrooms, computer laboratories and office spaces available to the students and faculty were adequate

- Procure input from the librarian, department of information technology and the Academic Resource Center to provide evidence that MMA provides adequate learning resources that are sufficient to support the IMB program.
- Work with the Admissions office and the Registrar's office to provide detailed narrative about the admission criteria, enrollment, retention and graduation data.
- Collate various student satisfaction and placement related information from the Office of Institutional Effectiveness and the Office of Career Services.
- Address discrepancies in the data gathered from the various departments.

It was only after all these steps that we were able to gather the information required to complete the Self Study which was a mammoth undertaking in itself. At this time, we are awaiting a site visit by an IACBE team and gearing up for final preparations.

Although this has been a long and arduous process sometimes fraught with tension, it was a tremendous learning experience where we took a very close look at ourselves. Often, in the day to day churn of teaching, research and administrative responsibilities, we lose sight of the big picture. The process of accreditation exposed our Achilles' heel and helped us to take corrective action to be better at our own game. The fact that the IMB program is accredited by IACBE, which in turn, is periodically reviewed by CHEA, will instill stakeholder confidence in the IMB program. The importance of outcome assessment in a bid for continuous improvement in quality or Kaizen, will henceforth be the guiding light for the IMB department at Massachusetts Maritime Academy.

References

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