

**UniMET Management and Practice**

Prof. Dr. Reza Ziarati, Principal, TUDEV Institute of Maritime Studies (TUDEV) and Chairman, Centre for Factories of the Future (C4FF)

rziarati@tudevedu.com

Reza.ziarati@c4ff.co.uk

Abstract

This development paper introduces a criterion based quality management system for the design and delivery of academic and vocational programmes such as UniMET. UniMET is a project to harmonise the MET programmes in several European countries. Currently there is no unified quality management system for MET programmes despite strict controls and targeted efforts from European Maritime Safety Agency (EMSA) to monitor MET STCW compliance in Europe and several other countries outside Europe. UniMET also intends to set higher standards for MET as well as intending to complement the minimum standards set by IMO primarily with a view to promote good practice and to respond to the needs of the maritime community. For more information about UniMET please refer to Development Paper – January 2012, www.marifuture.org.

The quality management system presented in this paper was developed after a comprehensive study of the existing quality and management systems already in place at the UniMET partner institutions as well as those of awarding bodies such as BTEC, accrediting bodies such as IMarEST and licensing bodies such as MCA, and combine the good practices from each to develop a unified and criterion referenced system to monitor the performance and most importantly the quality of the UniMET programmes. The system proposed, however, can be applied as a tool or set of criteria for the quality management of other academic or vocational programmes.

The intention is seek accreditation for UniMET from major awarding, accrediting and licensing authorities for approval of UniMET programmes and the proposed quality management system will be presented as the core of the UniMET programmes management and quality performance criteria. The system developed is a student centred approach in order to ensure the focus is on students, as the main stakeholders, and their needs are given priority in the UniMET programmes

A Students Centred Criterion Based Quality Management System

This document identifies the criteria for managing UniMET programmes and how these programmes are designed and structured.

There are also Six Aspects each with a set of Criteria:

Aspect 1: Teaching, learning and assessment

Aspect 2: Student progression and achievement

Aspect 3: Learning resources

Aspect 4: Student support and guidance

Aspect 5: Areas of concern and good practice



Aspect 6: Quality assurance and enhancement

a) Programme management and operation

Criteria

- A cost/benefit analysis together with market research for the proposed programme has been conducted prior to consideration by the Institution.
- Physical resources for the programme have been identified.
- The staff involved are sufficient in number and appropriately qualified and experienced.
- A staff development and training plan has been prepared.
- A system for taking students' and staff views has been established.
- The details of staff currently involved in delivery, assessment and internal and external quality assurance and control, are available.
- A Programme Leader has been identified and the roles of other staff involved in the programme have been established and details regarding technical and administrative support staff are available.
- A programme handbook identifying the following is available.
 - Description of the programme.
 - Rationale for the programme.
 - Aims.
 - Intended learning outcomes.
 - Programme structure.
 - Learning and teaching strategies.
 - Assessment strategy.
 - Student experienced support, progression and achievement.
 - Programme review and evaluation.
 - Entry regulations.
 - Academic regulations.
 - Examinations regulations and procedures.
 - Institution Management Structure.
 - Appeals procedures.
 - Counselling and advice.
 - Summary Syllabuses.



- There is a programme committee with a defined composition and terms of reference to oversee the programme operation and evaluation.

(b) Curriculum design and structure

Criteria

- The year has been broken down into specific periods of study, i.e. semesters, terms, etc.
- Modules/courses within the programme have been clearly identified.
- The academic depth for each module/course has been decided based on the intended student entry.
- The mix of core, elective and basic science modules satisfies the Institution's rules and regulations.
- The level of modules/courses, including electives, has been decided.
- Prerequisites for each module have been investigated and established and the structure of modules is coherent.
- Each module/course content has been developed after discussions with internal and external staff with expertise in that particular area.
- The modules selected satisfy the range and depth of knowledge required and their content has been developed to ensure minimal overlap unless desired.
- All electives have been identified and classified appropriately.
- Delivery methodology of programme modules has been decided.
- The total number of credits has been established.
- The curriculum content satisfies the academic requirements of the profession.
- The assessment methodology for each module has been determined.
- Progression routes are well defined.
- Transferable skills have been identified.
- A progression to further study has been made possible.
- A map of student-centred activities and opportunities for students' personal development is available.

Aspect 1 - Teaching, learning and assessment

Criteria

- The methodology in terms of lectures, seminars and workshops for each module has been decided.
- The assessment papers, i.e. examination and assignment briefs, have been prepared in accordance with the assessment requirements for the intended outcome.



- For each assessment, there is an assessment criterion as well as a grading criterion.
- The assessment ensures the students attain the required standards, i.e. examination papers and coursework satisfy depth and range requirements.
- There are mechanisms to assess teaching quality and this mechanism provides a grading system and includes the following areas:
 - clarity of the objectives for the session related to the intended outcomes,
 - student participation,
 - resources used during the session and appropriateness of the accommodation,
 - planning, content, method, pace and examples used
- There are mechanisms for supporting students with learning difficulties.
- Students are given opportunities to become involved in the programme operation and in taking responsibility for their own learning.
- The learning strategy clearly identifies teacher-centred and student-centred activities and that these activities are planned.
- There is a system for sampling students' assessed work.
- Students are expected to provide feedback on the quality of teaching provided and on their modules of study.
- There is an assessment schedule so that students know when, what and how they are going to be assessed.
- Learning experiences of students are relevant to employment.
- There is a systematic and progressive development and assessment of transferable skills.
- The assessment procedures are open, fair and free from bias.
- Records of assessments are up to date and available for scrutiny.
- There are procedures for internal verification and evaluation of all aspects of the assessment process.

Aspect 2: Student progression and achievement

Criteria

- There is a clear strategy for entry arrangements of students into academic programmes.
- Student entry and the intended outcome of programmes and modules are carefully matched.
- The progression rates and non-completion rates are clearly identified.
- Transfers in and out of programmes or courses/modules are clearly reconsidered and recorded.
- There are clear procedures to ensure grades and qualifications awarded to students are fair and unbiased.



- The arrangement for credit rating is such that the students are not disadvantaged if they decide to opt out of the institution at any time.

There are clear arrangements to monitor students' career development after graduation.

Aspect 3: Learning resources

Criteria

- There is an overall strategy for learning resources and their development.
- There is a library handbook that details library resources and opening times.
- Details of Learning Resources, including library and IT availability, are provided.
- Details of all physical resources and their location and availability to students, including those available off-site, are given.
- Each category of learning resources, namely laboratories, library and IT, are staffed accordingly (sufficient in number, appropriately qualified and experienced).
- The roles of staff involved in learning resources have been identified, including details of technical support staff.
- The training development needs of the learning resources staff have been identified and a programme of staff development for these staff is in place.
- The accommodation provided for laboratories, library and IT is appropriate.
- The students have access to learning support facilities in addition to books, periodicals and CD-ROMs, etc.
- There is evidence of an effective liaison between academic staff and learning resources staff.
- Students are provided with open access and independent learning materials.
- There are arrangements for introducing staff and students to learning resources.

Aspect 4: Student support and guidance

Criteria

- There is a strategy to provide meaningful support and guidance to students.
- There are planned arrangements for students' admission and induction and all staff are aware of these arrangements.
- There are arrangements for counselling and welfare support and all students have a tutor and know how to access a counsellor.
- The students have been introduced to learning and IT resources and full information has been given to them on how to use these facilities.
- There is a comprehensive service to students regarding careers and the world of employment.



- Relevant statistical and progression data are available.
- A mechanism is in place to identify student needs in terms of support and guidance.
- Students have access to an once for their social and club activities.
- Liaison staff members have been identified to support students' social and club activities.
- Students have access to relevant and appropriate IT facilities including the internet, application software and online databases.

Aspect 5: Areas of Concern and Good Practice

Criteria

The areas of concern are identified and action to remedy them stated.

The aspects of good practice are identified and brought to the attention of any of the stakeholders (students, teachers, management, external bodies involved and so forth).

Aspect 6: Quality assurance and enhancement

Criteria

- The needs of the organization are clearly identified.
- The needs of job specifications are clearly identified.
- The needs of individuals are clearly identified.
- The academic depth for each module/course has been decided based on the intended student entry.
- There is a policy to improve quality and maintain standards.
- There is a quality system in operation, which contains a Quality Assurance and Control Manual with clear procedures and instructions.
- The views of staff /students on operational aspects of the organization and quality issues are sought.
- There are periodic and on-going arrangements for monitoring the quality of academic programmes as well as administrative support services.
- Quality Assurance and Control arrangements are clear, rigorous and understood by staff and students.
- There is a staff development programme, which supports the staff development of academic and non-academic units.
- There is an appraisal and peer review of staff, including teaching skills.
- There is evidence of support for continuing professional development.
- There is a central as well as localized support for research.



· Research programmes, in the main, underpin the academic programmes offered.

References

- Gozacan, N, Ziarati, R., “Developing a Quality Criteria for Applications in Higher Education Sector in Turkey”, Total Quality Management Journal, vol. 13 No.6, November 2002.
- Gozacan, N. Ziarati, R., “Multi-dimensional Quality Model for Higher Education”, Proceedings of ASEE 2002 International Conference and Exhibition, Montreal, Canada, June 2002.
- Gozacan, N., Ziarati. R., “Developing a System of Quality Assurance for Higher Education Sector in Turkey”, Dogus University Journal, vol 1, no. 1, pp 18-27, January 2000.
- Ziarati, R., et al, “World Class Manufacturing - Recent Developments”, Proceeding of the Twelfth National Conference on Manufacturing Research, Bath, September 1996 (Refereed).
- Ziarati, R., et al, “Performance Measurement using a Financial Model, Proceeding of the Twelfth national Conference on Manufacturing Research, Bath, September 1996 (Refereed).