

### **Decision of Institutional Certified Evaluation and Accreditation**

Toba National College of Maritime Technology complies with the Standards for the Establishment of Colleges of Technology and other relevant laws and regulations, and meets the Standards for Evaluation and Accreditation of Colleges of Technology set by NIAD-UE.

Good practices identified by the review committee include:

- Problem-based learning (PBL) subjects such as the Maritime Technology Department's Advanced Naval Architecture and the Electronic Mechanical Engineering Department's Design & Drawing Exercises, as well as the Information and Control Engineering Department's Experiments of Engineering 3, designed to foster creativity, as exemplified by the Advanced Naval Architecture course offering a different theme each year with students producing a model ship according to the annual theme, together with the production of an underwater glider, a vehicle which is incapable of sailing horizontally underwater without an understanding of underwater forces (buoyancy, *etc.*), and requires various innovative ideas, enhancing creativity through individual guidance or group discussions,
- The Production System Engineering Major's Production System Labs, a cross-departmental PBL course, designed to foster students' problem-solving skills through group work based on common themes that deal comprehensively with robotics, system control engineering, programming, and other areas that involve specific knowledge, including a soccer competition for autonomous robots organized by the college in FY2012 to inspire creativity by prompting students to undertake specification research, function design, and prototype evaluation in groups according to designated rules, undergo individual interviews, and submit reports,
- An extremely high employment rate (the number of students employed divided by the number of students seeking employment after graduation) for both the associate and diploma courses, with students employed in the logistics industry, ICT industry, manufacturing industry, and other employment befitting of the engineers the college hopes to educate; and an extremely high rate of students advancing to higher education (the number of students advancing to higher education divided by the

number of students wishing to advance to higher education) for both the associate and diploma courses, with students advancing to diploma courses at colleges of technology or undergraduate and graduate courses in engineering or maritime technology field at universities that are related to associate/diploma courses, and

- An exchange agreement with the Singapore Maritime Academy, as a collaborative initiative with a higher education institution overseas, being a unique international exchange initiative encouraging students to participate in the Maritime Experimental Learning Cruise, aiming to improve cross-cultural understanding and to enhance English communication skills.

Areas for improvement identified by the review committee include:

- The lack of description regarding student selection criteria, though the admission policy clearly describes the “ideal student,”
- The lack of clarity whether or not the academic program for each department or course is designed systematically according to “the academic abilities and qualities/skills that a student should acquire by the time of graduation or the ideal graduate the college hopes to educate,”
- The failure to provide syllabuses, *etc.*, that students can easily understand regarding the relationship between course subjects and educational objectives (the academic abilities and qualities/skills that a student should acquire by the time of graduation, the ideal graduate the college hopes to educate, *etc.*) in the associate and diploma courses,
- The lack of clarity regarding the relationship between the design of the academic program and the method of assessing the attainment levels of the learning/educational objectives for each student in the associate and diploma courses to evaluate the outcomes or effects of institutional performance, and
- The lack of clarity as to whether or not checks/evaluations regarding the overall condition of the college based on college-designated standards are being conducted sufficiently, though regular checks/evaluations of the annual plan according to the mid-term objectives and mid-term plans are conducted and disclosed.

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