

Journal of Agricultural Sciences Research

THE ACCREDITATION OF DEGREES IN THE FIELD OF MARINE SCIENCES IN MEXICO

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Abstract: One of the fundamental objectives of the Accreditation Committee for careers in the maritime, fishing, aquaculture and Marine Sciences fields of the National Association of Marine Professionals, A.C., ANPROMAR, A.C., is to contribute to the development of maritime activities, fishing and aquaculture sectors of our country, providing technical advice to both the productive sector and the different Educational and Research Institutions. Once education is within the economic process of globalization, it must participate in intense competition in the different fields of the economy of the nations involved, this is where Marine Sciences play a strategic role, in terms of influence of its graduates who must be highly competitive with the sole purpose of promoting Maritime-Fishing and Aquaculture activities.

Keywords: Accreditation Committee, re-accreditation.

INTRODUCTION

Evaluation procedures in the educational sector are recent: in 1991 the National Coordination for the Planning of Higher Education (CONPES), proposed the formation of the Interinstitutional Committees for the Evaluation of Higher Education (CIEES), establishing itself as a dependent body. of the National Association of Universities and Higher Education Institutions of the Mexican Republic, A.C. (ANUIES), which is assigned powers to carry out diagnostic evaluation processes of educational programs and the functions of the institutions.

Starting in 2009, the Interinstitutional Committee for the Evaluation of Higher Education, made up of an assembly of associates made up of 9 institutions and operating nine Committees, the first seven are dedicated to the evaluation of Educational Programs and the last two to the functions of higher education institutions.

Special mention deserves the Agricultural Sciences Committee, which was initially called the Agricultural and Fisheries Sciences Committee, which included programs related to marine sciences: Oceanology, Aquaculture, Marine Biology, etc.

Later, in 2000, the Ministry of Public Education (SEP), the National Coordination for Higher Education Planning (CONPES), the National Commission for the Evaluation of Higher Education (CONAEVA) and the National Association of Universities and Institutions of Higher Education (ANUIES), established that the promotion and evaluation of the quality of higher education academic programs must be carried out through agencies or specialized union organizations, representative of the different professions, as is done in the majority of the countries of the world, this way the creation of a non-governmental organization that would regulate the accreditation processes was agreed, establishing the Council for the Accreditation of Higher Education, A.C. (COPAES).

As of 2010, COPAES is organically and administratively separated from the CIEES.

The COPAES, like the CIEES, has as its highest authority the assembly with 11 associates from different institutions:

If we carry out an analysis of the general assemblies of the CIEES and COPAES, it is observed that several administrative units participate in both organizations, such as the Undersecretary of Higher Education (SEP), the National Association of Universities and Higher Education Institutions of the Mexican Republic, A.C. (ANUIES) and the Federation of Private Mexican Institutions of Higher Education (FIMPES).

This is incongruent since the attributions for both organizations remain to be defined: in the case of the CIEES, the result of their diagnostic evaluation processes ends with obtaining either level 1 or level 2; while in the case of the COPAES accrediting bodies, it is

the accreditation or non-accreditation of the evaluated educational programs.

In this sense, the same quality value is given to accredited and re-accredited programs to those with level 1.

The above causes conflict and confusion among the educational programs that are likely to begin the accreditation process.

Another aspect to highlight is that within the COPAES Assembly there is no representation of the accrediting bodies, which puts them at a disadvantage by not participating in decision-making, which is unilateral.

In 1994, the Committee on Agricultural and Fisheries Sciences of the CIEES prepared the first "Frame of Reference for Evaluation", a base document to carry out diagnostic evaluation processes, which was analyzed and updated in 1995.

Taking into consideration, the experience acquired, the first accrediting bodies that emanated from the aforementioned committee were formed, being:

1. Mexican Committee for the Accreditation of Agronomic Education, A.C. (COMEAA).
2. National Council of Education of Veterinary Medicine and Zootechnics, A. C. (Conevet).
3. National Association of Sea Professionals, A. C., (ANPROMAR).

These accrediting bodies were recognized by COPAES in 2000 and 2002, being the first to be registered.

This regulatory and operational framework is evaluated by a technical committee appointed by COPAES, resulting in the recognition of ANPROMAR, A.C., on April 6, 2006 with official letter No. DG/145/2006. To perform functions as a non-governmental accrediting body for higher education academic programs at the bachelor's degree, higher university technical or associate professional levels and

diploma holders in programs related to Marine Sciences.

RESULTS

Education in Marine Sciences at the higher level shows a severe crisis. In this sense, we must point out that of the total enrollment at the higher level in the 2013-2014 school year, with 3,885,041 students in the technological and university sector attended, the students enrolled in 49 Programs that teach Bachelor's Degrees in the Sciences of the Sea in 32 Institutions, with an enrollment of 6,365 students, represents only .18% of the total enrollment of 3,588,041, not including normal education.

Careers related to the maritime-fishing and aquaculture sector represent only 0.18% of the total higher education enrollment in Mexico. (Table II and III).

Degree/Year	2004	2018
National School Population*	2'087,698	3'885,041
National School Population of the Marine Sciences Area	9,056	6,365
Percentage of the National School Population of the Marine Sciences Area	.43%	.18%

Table III: School Enrollment of Higher Education in Marine Sciences. 2004-2014

*Note: Normal Education is not included

CONCLUSIONS

It is time to change the discourse and commit to a single objective: to have a quality, democratic, critical, relevant and inclusive university, which leads to a knowledge society.

It is vitally important to strengthen the educational sector at both the Higher and Higher Secondary Levels in the Maritime-Fishing and Aquaculture field since it prepares future professionals who will be fundamentally responsible for the generation of high-protein food at low cost and job creation., quality education cannot be achieved where there is a lack of specific infrastructure, as well as highly qualified teaching staff.

Institution	Administrative unit	Programs	Tuition
1. Autonomous University of Baja California	``Facultad de Ciencias Marinas``	Bachelor in Oceanology	308
		Bachelor's Degree in Aquaculture Biotechnology	199
2. Autonomous University of Baja California Sur	``Área de Ciencias del Mar Departamento de Biología Marina Campus: La Paz``	Bachelor in Marine Biology	381
		Fisheries Engineer	138
		Bioengineering and Aquaculture	51
3. Autonomous University of Carmen	``DES Ciencias Naturales y Exactas``	Bachelor in Marine Biology	135
4. General Directorate of Higher Technological Education.	``Instituto Tecnológico en Lerma, Camp``	Aquaculture Engineering	28
5. Autonomous University of Chiapas	``Campus: Tapachula, Chiapas``	Coastal Systems Engineer	81
6. University of Sciences and Arts of Chiapas	``Campus del Mar, Tonalá, Chis.``	Bachelor's Degree in Marine Biology and Comprehensive Watershed Management	175
7. University of Colima	``Facultad de Ciencias Marinas``	Bachelor in Oceanology	66
		Oceanologist Engineer	93
		Marine Resources Management	90
8. Metropolitan Autonomous University	``División de Ciencias Biológicas y de la Salud Unidad Iztapalapa``	Bachelor's Degree in Hydrobiology	502
9. Autonomous University of Guerrero	``Unidad Académica de Ecología Marina, Acapulco, Gro.``	Bachelor's Degree in Marine Ecology	259
10. Technological University of the Sea of the State of Guerrero		Aquaculture Engineering	17
Technological University of the Sea of the State of Guerrero		Higher University Technician in Aquaculture	45
11. University of Guadalajara	``Unit: Autlan de Navarro Centro Universitario de la Costa Sur``	Marine biology	241
12. Coastal Technological University		Higher University Technician in Aquaculture Project Area	22
13. Autonomous University of Nayarit	``Escuela Nacional de Ingeniería Pesquera``	Fisheries Engineer	69
		Aquaculture Engineer	48
14. General Directorate of Higher Technological Education.	``Instituto Tecnológico Bahía de Banderas, Nay``	Bachelor in Marine Biology	123
		Environmental engineering	46
15. University of the Sea	``Puerto Ángel, Oax``	Bachelor in Marine Biology	192
		Bachelor in Oceanology	7
		Bachelor of Maritime Sciences	68
		Aquaculture Engineering	11
16. General Directorate of Higher Technological Education.	``Instituto Tecnológico en Salina Cruz Oaxaca``	Fisheries Engineering	0
		Aquaculture Engineer	81
17. Papaloapan University	``Campus: Loma Bonita``	Aquaculture Engineer	14
18. General Directorate of Higher Technological Education.	``Instituto Tecnológico Superior de Tlatlauquitepec, Puebla``	Aquaculture Engineer	55
19. Merchant Navy Schools Trust S.C.T.	``Escuela Náutica Mercante Capitán de Altura Antonio Gómez Maqueo, Mazatlán, Sin.``	Navy pilot	296
		Naval Machinist	220
20 Autonomous University of Sinaloa	``Facultad de Ciencias del Mar``	Aquaculture Biologist	317
		Fisheries Biologist	325
		Bachelor in Coastal Zone Management	72
21. General Directorate of Higher Technological Education.	``Instituto Tecnológico en Mazatlán, Sin.``	Fisheries Engineering	65
		Naval Engineer	256

22. General Directorate of Higher Technological Education.	``Instituto Tecnológico de Guaymas, Son``	Aquaculture Engineering Fisheries Engineering	56 0
23. Sonora State University	``Campus: Navojoa``	Bachelor in Aquatic Biotechnology	57
24. Juárez Autonomous University of Tabasco	``División Académica de Ciencias Agropecuarias``	Aquaculture Engineer	40
25. Centla Higher Technological Institute	``Centla, Tabasco``	Fisheries Engineer	32
26. Juárez Autonomous University of Tabasco.	``Extensión Universitaria de Los Ríos, Tenosique, Tab. División Académica Multidisciplinaria``	Aquaculture Engineering	35
27. Technological University of the Sea of Tamaulipas Bicentennial	``La Pesca, Tamps.``	Bachelor in Aquaculture Engineering Higher University Technician	45 97
28. Merchant Navy Schools Trust S.C.T.	``Escuela Náutica Mercante en Tampico, Tamps.``	Navy pilot Naval Machinist	266 133
29. Veracruzana University	``Facultad de Ingeniería Naval``	Naval Engineer	164
30. Veracruzana University	``Facultad de Ciencias Biológicas y Agropecuarias, Región Poza Rica-Tuxpan``	Bachelor in Marine Biology	178
31. General Directorate of Higher Technological Education.	``Instituto Tecnológico en Boca del Rio, Ver.``	Bachelor in Marine Biology Aquaculture Engineering Naval Engineer	374 68 157
32. Merchant Navy Schools Trust S.C.T.	``Escuela Náutica Mercante Cap. De Alt. Fernando Siliceo``	Naval Mechanical Engineer	230
33. Heroic Naval Military School	Secretaría de Marina	Naval Sciences Engineering	330
34. Autonomous University of Yucatán	``Facultad de Medicina Veterinaria y Zootecnia``	Bachelor in Marine Biology	266
35. National Autonomous University of Mexico	``Campus: El Sisal, Yucatán``	Bachelor's Degree in Sustainable Management of Coastal Zones	55
TOTAL	32	49	6,365

LIST OF HIGHER EDUCATION INSTITUTIONS THAT PROVIDE COURSES RELATED TO THE MARITIME-FISHING AND AQUACULTURE FIELD IN MEXICO, SCHOOL CYCLE 2018-2019 (ANUIES 2013).

REFERENCES

1. Comités Interinstitucionales para la Evaluación de la Educación Superior, CIEES-SEP-ANUIES. Comité de Ciencias Agropecuarias y Pesqueras. Marco de Referencia para la Evaluación, 1994.
2. Comités Interinstitucionales para la Evaluación de la Educación Superior, CIEES-SEP-ANUIES. Comité de Ciencias Agropecuarias y Pesqueras. Marco de Referencia para la Evaluación, Segunda Edición, 2001.
3. Metodología para la Acreditación de la Licenciatura en Biología. Comité de Acreditación y Certificación de la Licenciatura en Biología, A.C., CACEB, A.C. 2002.
4. Metodología para la Acreditación de la Licenciatura en Biología. Comité de Acreditación y Certificación de la Licenciatura en Biología, A.C., CACEB, A.C. 2008.
5. COPAES, A.C. 2012. Marco General para los Procesos de Acreditación de Programas de Nivel Superior -2012, del COPAES.
6. COPAES, A.C. 2012. Marco General para los Procesos de Acreditación de Programas de Nivel Superior -2012.
7. Asociación Nacional de Universidades e Instituciones de Educación Superior (ANUIES). Anuario Estadístico 2014, Población Escolar de Licenciatura en Universidades e Institutos Tecnológicos. ANUIES, México, 2014