<table>
<thead>
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<th>LABEL</th>
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<tbody>
<tr>
<td>Higher Education Institution:</td>
<td>Universidad Veracruzana</td>
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<tr>
<td>Country:</td>
<td>Mexico</td>
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<tr>
<td>State/province:</td>
<td>Xalapa, Veracruz</td>
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<tr>
<td>Name of the programme:</td>
<td>Computational Technologies</td>
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<tr>
<td>Degree awarded:</td>
<td>Bachelor</td>
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<td>Qualification Level:</td>
<td>First Cycle</td>
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Programme Objectives;

Profile:

To train professionals in Computational Technologies in an integral, ethical, proactive and quality way, having the competences to propose sustainable solutions based on computational technologies that satisfies social needs and contribute to the economic and social development of the region and the country. The above is achieved by a teaching system based on values, with teachers committed to the improvement and academic update, and a dynamic curriculum in continuous upgrade and improvement, according to the evolution of the profession.

Profile:
The graduate of the Degree in Computational Technologies will be able to properly use the theoretical and methodological knowledge of the discipline and its upgrades, as well to dominate techniques and tools for:

- Analyze the problem to solve through the study, review, observation and abstraction of its components following theoretical-methodological approaches in order to define a computational solution to the given problem.
- Design relevant, safe and reliable computing solutions, representing their components in an abstract way, according to theoretical-methodological approaches that allows to represents that components and their interrelations, supporting the posterior implementation of the solution.
- Build and deliver solutions that may include the creation, selection, adaptation and integration of computational products and services, based on specific designs, following methodologies and using hardware and software tools, in a secure, scalable, functional, robust way, with responsibility and confidentiality to solve identified problems.
• Evaluate computational solutions based on the characteristics previously established for them, with theoretical-methodological fundamentals applicable to the subject of the evaluation, with responsibility, tolerance and collaborative way to identify defects, suggest improvements and verify their level of quality.

• Manage actions, manage material, human and technological resources, applying management techniques and processes according to policies and guidelines of the organization, in a legal framework where it works with provision, opportunity and congruence, to help and strengthen planning and the execution of Computational Technologies projects, as well as improving decision support.

• Launch the necessary actions to generate innovative initiatives in the field of the profession, identifying opportunities by gathering the necessary resources to implement them, following techniques and methodological guides with leadership skills, with an optimistic and creative attitude, to satisfy the society's needs.

• Investigate, search and produce knowledge in an organized, objective and systematic way, to apply it in the creation or improvement of computational solutions, using research techniques and methods, working in teams in a collaborative manner, with openness, tolerance, creativity, criticality and social responsibility.

• Communicate and propose ideas and positions effectively with different audiences and collaborate in the formation of a culture of Computational Technologies that allows our society to understand and take advantage of the advances of computing.

• Understand the best practices, standards and their application to effectively integrate solutions based on Computational Technologies in organizations.

Programme Duration:
(Semesters; in case of “terms” of different length, indicate them and the equivalent in semesters)

8 semesters

Total Number of ECTS Credits Awarded:

240 ECTS

Brief Description of the Programme:

General Basic Area

• English 1 - 4.11 ECTS (1.71%)
• Basic Computing - 4.11 ECTS (1.71%)
• Critical and creative thinking skills - 4.11 ECTS (1.71%)
• English 2 - 4.11 ECTS (1.71%)
• Reading and writing through the analysis of the contemporary world - 4.11 ECTS (1.71%)

**Initiation Discipline Area**
- Fundamentals of mathematics - 5.49 ECTS (2.29%)
- Information technologies for innovation - 4.80 ECTS (2.00%)
- Introduction to programming 5.49 ECTS (2.29%)
- Linear algebra for computing - 4.80 ECTS (2.00%)
- Probability and statistics for computing - 5.49 ECTS (2.29%)
- Programming - 6.17 ECTS (2.57%)
- Discrete Mathematics 5.49 ECTS (2.29%)

**Disciplinary Training Area**
- Research methodology - 5.49 ECTS (2.29%)
- Computers Organization - 6.17 ECTS (2.57%)
- Databases - 6.17 ECTS (2.57%)
- Operating systems - 6.17 ECTS (2.57%)
- Data structures - 6.17 ECTS (2.57%)
- Networks - 6.17 ECTS (2.57%)
- Advanced databases - 5.49 ECTS (2.29%)
- Software Engineering - 6.17 ECTS (2.57%)
- Intelligent systems - 5.49 ECTS (2.29%)
- Advanced programming - 6.17 ECTS (2.57%)
- Servers Administration - 5.49 ECTS (2.29%)
- Web systems - 5.49 ECTS (2.29%)
- Development methodologies - 5.49 ECTS (2.29%)
- Management skills - 5.49 ECTS (2.29%)
- Human computer interaction - 6.17 ECTS (2.57%)
- Ethics and computer legislation - 4.80 ECTS (2.00%)
- Management of IT projects - 5.49 ECTS (2.29%)
- Web technologies - 5.49 ECTS (2.29%)
- Software development - 5.49 ECTS (2.29%)
- Technologies for the integration of solutions - 6.17 ECTS (2.57%)
- Mobile development - 5.49 ECTS (2.29%)
- Integration of solutions - 5.49 ECTS (2.29%)
- Security - 5.49 ECTS (2.29%)
- Integrative project - 4.80 ECTS (2.00%)

**Terminal Training Area**
Optional 1 - 4.11 ECTS (1.71%)
Optional 2 - 4.11 ECTS (1.71%)
Social Service - 8.23 ECTS (3.43%)
Optional 3 - 4.11 ECTS (1.71%)
Receptional Experience - 8.23 ECTS (3.43%)
Accreditation of the English language - 4.11
<table>
<thead>
<tr>
<th><strong>Examples of Very Good Practice:</strong></th>
<th><strong>ECTS (1.71%)</strong></th>
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<tbody>
<tr>
<td>In this title, the students develops a degree thesis, offering innovative solutions through the use of computer technologies, attending a social need of the region or country, where they investigate the state of the art or background of the problem, and deliver a functional end product.</td>
<td><strong>Free Choice Training Area</strong></td>
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<td>Students provide their professional services for 480 hours in an institution or company, using the skills and competences they acquired during their studies, solving problems and offering their work in a sense of feedback to society.</td>
<td>Elective - 12.34 ECTS (5.14%)</td>
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<td>The academic staff is constantly updated, have a lot of experience and a high quality teaching.</td>
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<td>Students have vocational, psychological, health and academic support and guidance throughout their school career.</td>
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<tr>
<th><strong>Accredited without / with Adjustment Requirements:</strong></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Adjustment Requirements:</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Accredited by:</strong></td>
<td>ANECA.</td>
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See on the ANECA website the affected graduates by the attainment of this International Label of Quality.