

Erick Omar Bacilio de la Cruz

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Education

120-Hour TESOL/TEFL Certificate, World TESOL Academy Aug 15, 2023

- Certificate number: WTA22271796 (UKRLP: 10087431)

TOEFL ITP, Lima, Peru Oct 14, 2022

- Score Total: 537, Institution: ACPNA, Student Number: 1805040007

National University of the Center of Peru (UNCP), Huancayo, Peru July 2023

- Major: Civil Engineering, B.A.

Federal University of Minas Gerais, Belo Horizonte, Brazil Fall 2022 Study Abroad

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Languages

- | | | |
|---|---|---------------------------------------|
| • English ,
Fluent/Proficient | • Spanish ,
Fluent/Proficient | • Portuguese ,
Intermediate |
|---|---|---------------------------------------|

Experience with Softwares

- | | | |
|--------------------|--------------------|------------------|
| • ArcGis – Qgis | • MS Project | • SAP 2000 |
| • AutoCAD 2D | • CSI Safe | • Matlab |
| • AutoCAD 3D | • S10 Presupuestos | • Microsoft Word |
| • AutoCAD Civil 3D | • Etabs 19 | • Excel |

Leadership in Teaching

Teacher Trainer, Discovery International School, *Tehuacan, Mexico* Oct-Dec 2023

- I was in charge of training a new international teacher from Nigeria when she first arrived. I taught her to create lesson plans, use online platforms, manage students, and other relevant skills

English Teacher, Discovery International School, *Tehuacan, Mexico* Aug-Dec 2023

- I taught English to beginner and intermediate-level students from 6th-10th grade. I focused on grammar, vocabulary, use of English, and speaking. I also trained them for a Spelling Bee.

University Writing Teacher, Discovery International School, *Tehuacan, Mexico* Aug-Dec 2023

- I taught 10th grade students of various English levels how to write college essays in English. I guided them to write an argumentative essay, as well as a personal college statement.

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- Learning Center Leader**, Discovery International School, *Tehuacan, Mexico* Aug-Dec 2023
- I was in charge of leading daily dynamic activities such as art projects, games, experiments, and workshops for 1st-6th grade students in English. I coordinated the workshop rotations as well.
- Computer Teacher**, Discovery International School, *Tehuacan, Mexico* Aug-Dec 2023
- I was in charge of guiding 2nd-10th grade students through psychological, cognitive exercises on an online program called Lexium. I tracked and managed the progress of 100+ students weekly.
- Science Teacher**, Discovery International School, *Tehuacan, Mexico* Aug-Dec 2023
- I taught 9th grade biology in English. I was in charge of teaching them about biochemistry by leading them through various dynamic activities as well as quizzing them on the subject.
- Self-Defense Instructor**, Discovery International School, *Tehuacan, Mexico* Aug-Dec 2023
- I co-led a self-defense club for middle schoolers during recess time. This was a project that I started alongside another teacher. We taught various techniques to escape dangerous situations.

Community Development

- Non-profit Leader**, WorkAway: The DOX Project, *Xela, Guatemala* Jan 2023-Present
- I am currently volunteering at a dog rescue center. I live with thirteen dogs that were rescued off the streets of Guatemala. I walk, clean up after, and take care of them daily with one other person.
- Math Tutor**, Justicia Paz y Vida Neighborhood, *Huancayo, Peru* Feb 2016-July 2023
- I have tutored my two younger brothers and their classmates who lived in my neighborhood in Peru math. I have helped teach them to add, subtract, multiply, divide, etc.
- English Tutor**, Justicia Paz y Vida Neighborhood, *Huancayo, Peru* Feb 2016-July 2023
- Ever since my youngest brother entered kindergarten, I was in charge of helping him and his neighborhood friends complete their English homework several times a week.
- English Translator**, Justicia Paz y Vida Neighborhood, *Huancayo, Peru* Jan 2022-July 2023
- My mother's friend from my neighborhood in Peru enrolled in an online English course. She would come over to our house and pay me to help her translate texts whenever she needed help.
- Babysitter**, Justicia Paz y Vida Neighborhood, *Huancayo, Peru* Feb 2010-July 2023
- I babysat my second youngest brother and his friends since they were in kindergarten and I was in 3rd grade. Additionally, I have babysat my youngest brother by myself since he was a baby.
- Children's Soccer Assistant**, Wanka Team, *Huancayo, Peru* Jan 2022-July 2023
- I would assist in a private elementary school soccer team that my youngest brother participated in by accompanying them to games and helping them practice their soccer skills.
- Eng. Conversation Club Participant**, UNCP College Group, *Huancayo, Peru* April-June 2023
- I participated in weekly English conversation clubs and culture clubs that my partner would host around the UNCP college area. My partner is from the USA but she lived in Peru for a semester.

Engineering Experience

Civil Engineering Projects Team Member, MEGAUNI Engineers, *Huancayo, Peru* March-July 2023

- Create technical engineering project files, prepare measurements and S10 budgets, produce descriptive reports, prepare blueprints, form structural calculation reports, and make project execution schedules

Engineering Designs Collaborator, OSMIL, *Huancayo, Peru* June-Aug 2022

- Reviewed engineering project budgets, prepared blueprints, and surveyed observations in reports regarding project controls

Conference Attendee, National Congress of Civil Engineering Students, *Puno, Peru* Aug 2019

- Attended a civil engineering conference for university students in Peru where I got to attend various engineering seminars led by professionals from various countries

Engineering Projects

Modeling Plane Elasticity Problems, Federal University of Minas Gerais, *Brazil* 2022

- Applied the INSANE software for finite elements to determine the approximate solution for a horizontal displacement of a point on a dam
- Adopted various meshes of triangular elements until the difference between the results was at most 5.0%
- Generated graphs on the number of elements, displacements, and variations of efforts in the domain of the dam

Application of the GeoSlope Program for Slope Stability Analysis, UNCP, *Peru* 2022

- Compared the slope stability analysis methods using the GeoSlope software on a slope with the presence of a water table
- Utilized methods such as Fellenius, Jambu, Bishop, Sarma, Spencer, and Morgenstern-Price

Analysis of a Building with 4 Levels of Structural Steel, UNCP, *Peru* 2021- 2022

- Carried static analysis with the Etabs 19 software, dimensioned structural elements, and modeled a 4-story building in steel material
- Designed a system with the premise of an Ordinary Concentrically Braced Portal OCBF structural system.

Static Analysis, Dynamic Analysis, and Static Pseudo-Three-Dimensional Analysis of a 2-Story Reinforced Concrete Building, UNCP, Peru

2021- 2022

- Calculated the properties of free vibration (frequencies, periods, and modes of vibration) with the use of damping
- Generated motion graphs using the Matlab program
- Performed a response test of the structure to earthquakes, such as the Parkfield (1966), Ancash-Peru (1970), and Lima-Peru (1974) earthquakes using Matlab software
- Generated the pseudo-acceleration spectra of the 3 earthquakes

Hydrological Study of the Pampas River Sub-Basin, UNCP, Peru

2021

- Engaged in the hydrographic study of a portion of the Pampas Sub-basin in Ayacucho-Peru that consisted of investigating meteorological variables, precipitation, evapotranspiration, infiltration, the generation of flows with empirical/statistical methods, and the analysis of flow data through the realization of unit Hydrographs and S Curves.
- Carried out the delimitation process of the basin with the QGIS and AutoCAD Civil 3D programs
- Modeled groundwater using the Modflow program

Static and Dynamic Analysis of a 4-Story Reinforced Concrete Building, UNCP, Peru

2021

- Elaborated on the dimensioning, structuring, and static and dynamic analysis of a 4-story building using the structural wall system
- Utilized the Etabs 19 software to represent the analytical model of the building
- Created a seismic calculation report considering the nodal periods, displacements, and inter-story distortions

Comparison Between Flexible Pavement Design (AI-Asphalt Institute Method) and Rigid Pavement (PCA-Portland Cement Association Method), UNCP, Peru

2021

- Compared the results of the pavement thicknesses obtained by the AI and PCA method
- Performed the pavement analysis using the PITRA PAVE 1.0 program where the acting stresses were obtained
- Predicted the years in which each of the pavement failures (fatigue and rutting) can occur with their respective graphs

Geometric Highway Project for the District of Ayapata, Puno-Peru, UNCP, Peru

2021

- Projected a geometric highway design, generated location plans- typical section and longitudinal profiles, created cross-section plans, and produced a final embankment analysis sheet
- Carried out the procedure using the AutoCAD Civil 3D program

Relevant University Courses

- Linear Algebra
- Differential Equations
- Slope stability
- Applied Geomatics
- Project Management
- Structural Masonry
- Experimental Geotechnics
- Traffic Engineering
- Construction Regulations
- Railways
- Foundations and Retaining Structures
- Seismic Design
- Topography
- Mathematics I
- Vector Calculus
- Engineering Drawing
- Numerical Methods and Programming
- Chemistry Applied to Materials
- Applied Geology
- Materials Resistance
- Materials Technology
- Structural Analysis
- Building Processes
- Water Supply and Sewage System
- Bridge Design
- Intro to the Finite Element Method
- Mathematics II
- Statistics and Probabilities
- Applied Physics
- Concrete Technology
- Foundations Engineering
- Wood and Steel Design
- Reinforced Concrete
- General Hydrology
- Roads Engineering
- Hydraulic Works
- Hydroelectric Exploitation
- Health and Safety in Construction
- Pavement
- Soil Mechanics

Coding Languages

- **Javascript,**
Beginner/Intermediate
- **Python,**
Beginner/Intermediate
- **Matlab,**
Beginner/Intermediate