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# Translation of a Programme of Study and Weekly Course Load from Spanish

[University emblem]

*Universidad Nacional de Tucumán*

*[National University of Tucumán]*

[Logo of Faculty of Exact Sciences and Technology – National University of Tucuman]

Mechanics Department

## Programme of Study and Weekly Course Load

Programme of Study 2004 – Modified 2013

| Year 1 | | | | | |
|---|---|---|---|---|---|
| *MODULE 1* | | | *MODULE 2* | | |
| # | Courses | HOURS | # | Courses | HOURS |
| 01 | Calculus I | 6 | 05 | Calculus II | 5 |
| 02 | Algebra and Analytic Geometry I | 6 | 06 | Elements of Linear Algebra | 5 |
| 03 | Systems of Representation | 5 | 07 | Physics II | 6 |
| 04 | Physics I | 6 | 08 | Informatics | 4 |
| | | | 09 | Fundamentals of General Chemistry | 5 |
| | TOTAL | **23** | | TOTAL | **25** |

| Year 2 | | | | | |
|---|---|---|---|---|---|
| *MODULE 3* | | | *MODULE 4* | | |
| # | Courses | HOURS | # | Courses | HOURS |
| 10 | Physics III | 8 | 14 | Calculus IV | 6 |
| 11 | Calculus III | 6 | 15 | Probability and Statistics | 5 |
| 12 | Technical Mechanics I | 5 | 16 | Stability I | 6 |
| 13 | Machine Drawing | 8 | 17 | Technical Mechanics II | 6 |
| | TOTAL | **27** | | TOTAL | **25** |

| Year 3 | | | | | |
|---|---|---|---|---|---|
| *MODULE 5* | | | *MODULE 6* | | |
| # | Courses | HOURS | # | Courses | HOURS |
| 18 | Computer-aided Design | 6 | 23 | Knowledge of Materials | 7 |
| 19 | Stability II | 6 | 24 | Thermodynamics | 8 |
| 20 | Fluid Mechanics | 5 | 25 | Industrial Electronics | 4 |
| 21 | General Electrotechnics and Laboratory | 6 | | | |
| 22 | Materials Testing | 4 | | | |
| | TOTAL | **27** | | TOTAL | **19** |

C.M. Gordon, JP #7032 AUCKLAND Justice of the Peace for New Zealand

CERTIFIED ORIGINAL SIGHTED - AND THAT THIS IS A PHOTOCOPY OF THAT ORIGINAL
Signed C M Gordon
Date 13/9/2017

Avda. Independencia 1800 – CP 4000 – Tucumán (Rep. Argentina) - +54 381 436-4093 – Fax +54 381 436-4157 – Mec 410 7577

**Translator's Note:** This is a true and faithful translation into English of the original document written in Spanish, which I have had before me. Copy of the original is attached. By law the New Zealand Qualifications Authority determines the value of international qualifications in New Zealand. This translation should not be seen as an assessment or validation of any qualifications.

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| Year 4 | | | | | |
|---|---|---|---|---|---|
| *MODULE 7* | | | *MODULE 8* | | |
| # | Courses | HOURS | # | Courses | HOURS |
| 26 | Machine Elements and Projects | 8 | 31 | Hydraulics and Pneumatics | 4 |
| 27 | Electrical Machines | 5 | 32 | Heating, Ventilation and Air Conditioning Technology | 5 |
| 28 | Mechanical and Manufacturing Technology | 7 | 33 | Hydraulic Machines | 6 |
| 29 | Steam Turbines | 6 | 34 | Electrical Installations | 5 |
| 30 | Thermodynamic Measurements | 4 | 35 | Stability III | 4 |
| | TOTAL | **30** | | TOTAL | **24** |

| Year 5 | | | | | |
|---|---|---|---|---|---|
| *MODULE 9* | | | *MODULE 10* | | |
| # | Courses | HOURS | # | Courses | HOURS |
| 36 | Control Systems | 5 | 41 | Steam Generators and Thermodynamic Installations | 8 |
| 37 | Vibration and Machine Foundation | 4 | 42 | Internal Combustion Engines | 8 |
| 38 | Elevation and Transport Machines | 6 | 43 | Machine and Thermodynamic Installation Testing | 4 |
| 39 | Industrial Organisation | 4 | 44 | Industrial Economics | 4 |
| 40 | Legal Engineering | 4 | 45 | Hygiene, Industrial Security and Environmental Control | 4 |
| | TOTAL | **23** | | TOTAL | **28** |

Additional requirements: to be awarded the degree of Mechanical Engineer, the student must pass the following:
Workshop Practice I: 100 hours
Workshop Practice II: 100 hours
Internal Combustion Engine Workshop: 100 hours
Supervised Professional Practice: 200 hs
Final Project: 250 hours
Competency Exam in English: 40 hours, this test must me passed at any time between module 2 and before the start of module 7.



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