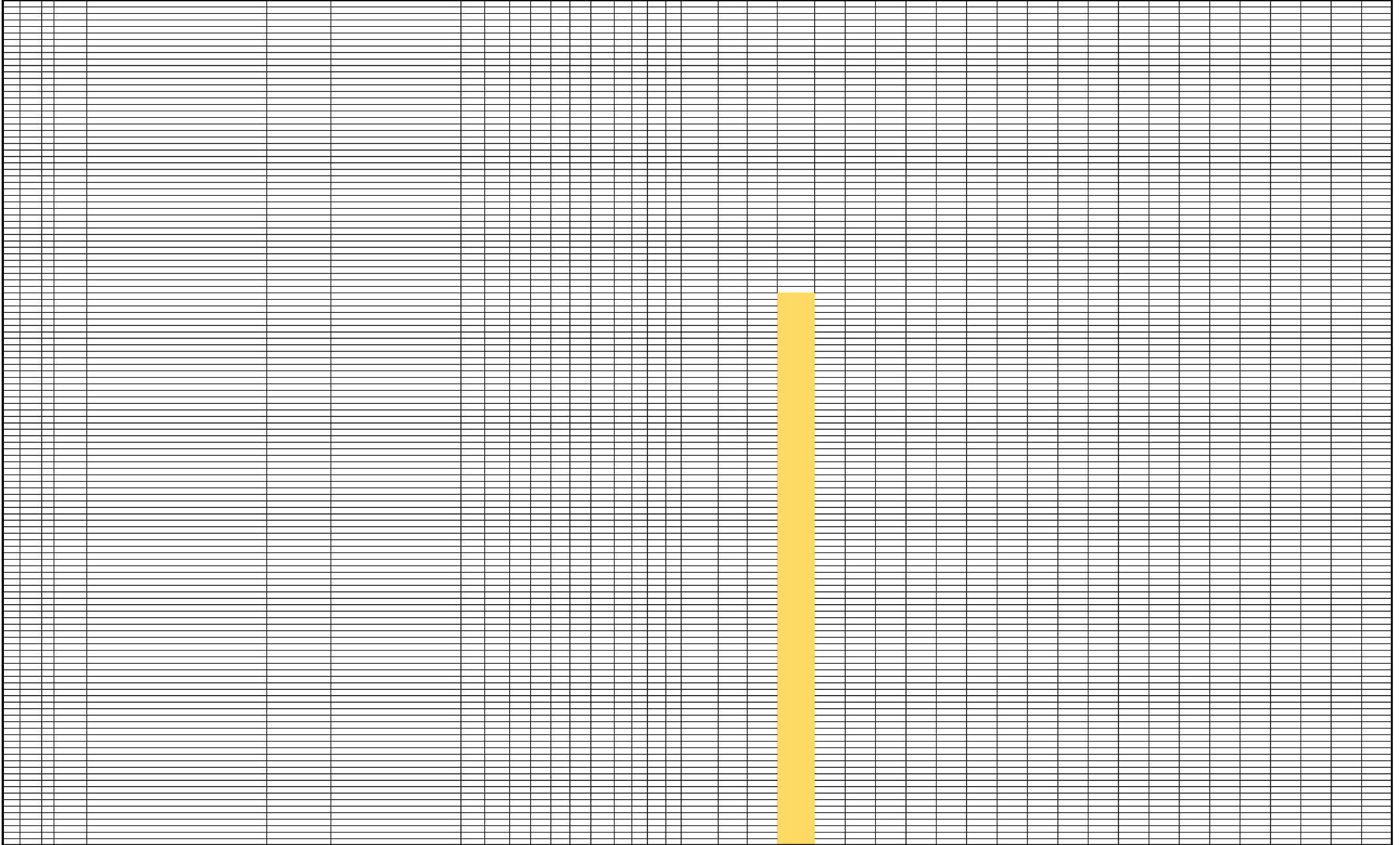


| Republic of Iraq - Ministry of Higher Education and Scientific Research | | Northern Technical University (NTU) | | جامعة التقنية العلمية الشمالية (NTU) | | مؤسسة التعليم العالي والبحث العلمي | | | | | | | | | | | | | |
|---|----------|--|---------------------------|---|----------------------------------|--|----------------|----------------|---------------|--------------|---------------|-------------------|---------|---------|---------|------|-------|-------------|------------------------|
| Bachelor's degree in College of Oil and Gas Technique Engineering, Kirkuk (COGTEK), Department of Renewable Energy Techniques Engineering (RETE) - (First cycle) | | Four years (Eight semesters) - 120 ECTS credits - 1 ECTS = 25 hr | | Program Curriculum (2023 - 2024) | | الدرجة البكالوريوس في كلية هندسة تقنيات النفط والغاز (COGTEK)، فرع كركوك، قسم هندسة تقنيات الطاقة المتجددة (RETE) - (الدورة الأولى) أربع سنوات (ثمانية فصول دراسية) - 120 ائتمانية - 1 ائتمانية = 25 ساعة المناهج الدراسية للعام 2023-2024 | | | | | | | | | | | | | |
| Level | Semester | No. | Module Code | Module Name in English | اسم المادة الدراسية | Language | SSWL (hr/week) | | | | | | Exam | SSWL | USWL | SWL | ECTS | Module Type | Prerequisite Module(s) |
| | | | | | | | CL (hr/week) | Lect (hr/week) | Lab (hr/week) | Pr (hr/week) | Tut (hr/week) | Seminar (hr/week) | hr/week | hr/week | hr/week | | | | |
| One | | 1 | NTU 101 | English Language | اللغة الانكليزية | English | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 33 | 17 | 50 | 2.00 | B | |
| | | 2 | RETE 100 | Engineering Mathematics I (Static) | رياضيات الهندسة (الجزء الساكن) | English | 3 | 2 | 0 | 2 | 0 | 0 | 0 | 78 | 97 | 175 | 7.00 | C | |
| | | 3 | COGTEK 100 | Mathematics Principles | مبادئ الرياضيات | English | 3 | 2 | 0 | 2 | 0 | 0 | 0 | 78 | 97 | 175 | 7.00 | C | |
| | | 4 | RETE 102 | Electrical Technology | تقنيات الطاقة الكهربائية | English | 2 | 2 | 0 | 1 | 0 | 0 | 0 | 78 | 72 | 150 | 6.00 | C | |
| | | 5 | RETE 103 | Thermodynamics | الديناميكا الحرارية | English | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 60 | 60 | 120 | 5.00 | C | |
| 5 | NTU 102 | Democracy and Human Rights | الديمقراطية وحقوق الانسان | Arabic | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 33 | 17 | 50 | 2.00 | B | | | |
| Total | | | | | | | 12 | 0 | 0 | 0 | 5 | 2 | 15 | 200 | 200 | 750 | 30.00 | | |
| One | | 1 | RETE 104 | Thermodynamics | الديناميكا الحرارية | English | 3 | 2 | 0 | 2 | 0 | 0 | 0 | 108 | 117 | 225 | 9.00 | C | |
| | | 2 | NTU 102 | Arabic Language | اللغة العربية | Arabic | 2 | 2 | 0 | 0 | 0 | 0 | 33 | 17 | 50 | 2.00 | B | | |
| | | 3 | RETE 101 | Engineering Mathematics / Dynamics | الرياضيات الهندسية / الديناميكا | English | 3 | 2 | 0 | 2 | 0 | 0 | 0 | 78 | 122 | 200 | 8.00 | C | |
| | | 4 | COGTEK 101 | Engineering Drawing | رسم الهندسة | English | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 63 | 137 | 200 | 8.00 | C | |
| | | 5 | NTU 102 | Arabic Language | اللغة العربية | Arabic | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 33 | 17 | 50 | 2.00 | B | |
| Total | | | | | | | 10 | 0 | 0 | 0 | 4 | 1 | 15 | 315 | 425 | 750 | 30.00 | | |
| Three | | 1 | COGTEK 200 | Fluid Mechanics | ميكانيكا الموائع | English | 3 | 2 | 0 | 2 | 0 | 0 | 0 | 93 | 107 | 200 | 8.00 | C | |
| | | 2 | COGTEK 201 | Mathematics | رياضيات | English | 3 | 2 | 0 | 2 | 0 | 0 | 0 | 78 | 97 | 175 | 7.00 | C | |
| | | 3 | RETE 200 | Electronics | التقنيات الإلكترونية | English | 3 | 2 | 0 | 1 | 0 | 0 | 0 | 93 | 62 | 175 | 7.00 | C | |
| | | 4 | RETE 201 | Mechanical Drawing | رسم الميكانيكا | English | 1 | 3 | 0 | 0 | 0 | 0 | 0 | 63 | 97 | 150 | 6.00 | C | |
| | | 5 | NTU 200 | Basic English courses in Iraq | مناهج اللغة الانكليزية في العراق | Arabic | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 33 | 17 | 50 | 2.00 | B | |
| Total | | | | | | | 12 | 0 | 0 | 0 | 4 | 1 | 15 | 280 | 390 | 750 | 30.00 | | |
| Two | | 1 | RETE 202 | Strength of Materials | مقاومة المواد | English | 3 | 2 | 0 | 1 | 0 | 0 | 0 | 93 | 97 | 150 | 6.00 | C | |
| | | 2 | RETE 203 | Electronics circuits | الدوائر الإلكترونية | English | 3 | 2 | 0 | 1 | 0 | 0 | 0 | 93 | 97 | 150 | 6.00 | C | |
| | | 3 | RETE 204 | Mathematics & Air Conditioning Principles | مبادئ الرياضيات والتكييف | English | 2 | 2 | 0 | 1 | 0 | 0 | 0 | 78 | 72 | 150 | 6.00 | C | |
| | | 4 | RETE 205 | Electric machines | ماكينات كهربائية | English | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 63 | 62 | 125 | 5.00 | C | |
| | | 5 | NTU 201 | English Language | اللغة الانكليزية | Arabic | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 33 | 17 | 50 | 2.00 | B | |
| | | 6 | NTU 202 | Computer | الحاسوب | Arabic | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 33 | 17 | 50 | 2.00 | B | |
| | | 7 | NTU 203 | Arabic Language | اللغة العربية | Arabic | 2 | 2 | 0 | 0 | 0 | 0 | 0 | 33 | 17 | 50 | 2.00 | B | |
| Total | | | | | | | 18 | 4 | 0 | 0 | 0 | 0 | 13 | 426 | 324 | 750 | 30.00 | | |
| Three | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| Four | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| Total | | | | | | | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0.00 | | |
| Semester | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| | | | | | | | | | | | | | | | | | | | |
| Total | | | | | | | 48 | 0 | 0 | 0 | 16 | 4 | 66 | 1491 | 1309 | 3000 | 120.0 | | Not to pass ECTS |
| Information to fill in accordance of the Bachelor's degree CL: Class Lecture Lab: Laboratory Pr: Practical Training Tut: Tutorial Lect: Online lecture Seminar Module type: B: Basic learning activities C: Core learning activity S: Support or related learning activity E: Elective learning activity SWL: Student Workload USWL: Unstructured SWL Note: Columns C, Q and R are programmed, protected and should not be edited | | | | | | | | | | | | | | | | | | | |



This image shows a horizontal grid structure. The grid consists of 100 columns and 20 rows. A single column, the 50th column from the left, is highlighted in a solid yellow color. All other columns are white with a thin black border. The grid is centered vertically on the page.