## Degree Audit

Student Name: Joe Averageman Student ID: A22101352 Email: joe@auk.edu.krd Credits Earned: 24

Declared Major: Petroleum Engineering

|             |                               | GE-ORAL AND WRITTEN COMMUNICATION - ENG ( 6 Required credits) |               |                 |                   |        |  |           |                |                   |  |
|-------------|-------------------------------|---|---------------|-----------------|-------------------|--------|--|-----------|----------------|-------------------|--|
| Course Code | Course                        | Credits Pre   | e-Requisite 1 | Pre-Requisite 2 | Pre-Requisite Met | Status |  | Take Next | Credits Earned | Internal Transfer |  |
| COMM1301    | Introduction to Communication | 3   |               |                 |                   |        |  |           | 3              |                   |  |
| COMM2301    | Academic Writing              | 3 (   | COMM1301      |                 |                   |        |  |           | 3              |                   |  |
|             |                               |   |               |                 |                   |        |  |           |                |                   |  |

|             |              | GE- Quantitative Literacy - ENG   |      | Not Yet Met       |
|-------------|--------------|---|------|-------------------|
| Course Code | Course       | Credits   Pre-Requisite 1   Pre-Requisite 2   Pre-Requisite Met   Status   Take Next   Credits Ea | rned | Internal Transfer |
| MATH1321    | Calculus I   | 3   |      |                   |
| MATH1311    | Statistics I | 3 Not Taken Ready To Take   |      |                   |
|             |              |   |      |                   |

|             |  |         | GE-HUM          | ANITIES - E     | NG (6 Credits)    |           |               |                | Not Yet Met       |
|-------------|--|---------|-----------------|-----------------|-------------------|-----------|---------------|----------------|-------------------|
| Course Code | Course                                   | Credits | Pre-Requisite 1 | Pre-Requisite 2 | Pre-Requisite Met | Status    | Take Next     | Credits Earned | Internal Transfer |
| ENGL2301    | American Literature                      | 3       |                 |                 |                   | Not Taken | Ready To Take |                |                   |
| INTS1302    | Kurdish Studies                          | 3       |                 |                 |                   | Not Taken | Ready To Take |                |                   |
| PHIL1311    | Ethics and Social Responsibility         | 3       |                 |                 |                   | Not Taken | Ready To Take |                |                   |
| INTS1303    | Middle East History                      | 3       | INTS1302        |                 | Not Met           | Not Taken |               |                |                   |
| PHIL1310    | Introduction to Philosophy               | 3       |                 |                 |                   | Not Taken | Ready To Take |                |                   |
| COMM2320    | Introduction to Journalism               | 3       |                 |                 |                   | Not Taken | Ready To Take |                |                   |
| SOCI2310    | Culture, Diversity, and Multiculturalism | 3       |                 |                 |                   | Not Taken | Ready To Take |                |                   |
| INTS3311    | Democracy and Civil Society              | 3       |                 |                 |                   | Not Taken | Ready To Take |                |                   |
|             |  |         |                 |                 |                   |           |               |                |                   |

|             |   | GE-A                    | ARTS - ENG (    | 3 Credits)        |           |               |                | Not Yet Met       |
|-------------|---|-------------------------|-----------------|-------------------|-----------|---------------|----------------|-------------------|
| Course Code | Course  | Credits Pre-Requisite 1 | Pre-Requisite 2 | Pre-Requisite Met | Status    | Take Next     | Credits Earned | Internal Transfer |
| DESN1300    | Kurdish Art                                   | 3                       |                 |                   | Not Taken | Ready To Take |                |                   |
| DESN1302    | Visual Communication I                        | 3                       |                 |                   | Not Taken | Ready To Take |                |                   |
| ARCE2312    | Freehand Architectural Drawing                | 3                       |                 |                   | Not Taken | Ready To Take |                |                   |
| ARCE3308    | Architecture: Culture, Community, and Climate | 3                       |                 |                   | Not Taken | Ready To Take |                |                   |
|             |   |                         |                 |                   |           |               |                |                   |

|             |                   | GE-IT LITERACY - ENG ( 3 Required credits)  |                   |  |  |  |  |  |  |  |  |
|-------------|-------------------|---|-------------------|--|--|--|--|--|--|--|--|
| Course Code | Course            | Credits   Pre-Requisite 1   Pre-Requisite 2   Pre-Requisite Met   Status   Take Next   Credits Earned | Internal Transfer |  |  |  |  |  |  |  |  |
| CSIT1301    | Computer Literacy | 3   |                   |  |  |  |  |  |  |  |  |
|             |                   |   |                   |  |  |  |  |  |  |  |  |

|             |                 | GE-NATURAL SCIENCES - ENG (7 required credits)   |               | Not Yet Met       |
|-------------|-----------------|--|---------------|-------------------|
| Course Code | Course          | Credits   Pre-Requisite 1   Pre-Requisite 2   Pre-Requisite Met   Status   Take Next   Credits   Credits   Pre-Requisite 1   Pre-Requisite 2   Pre-Requisite Met   Status   Credits   Credits   Pre-Requisite 1   Pre-Requisite 2   Pre-Requisite Met   Status   Credits   Pre-Requisite 2   Pre-Requisite Met   Status   Credits   Pre-Requisite 2   Pre-Requisite Met   Pre- | redits Earned | Internal Transfer |
| CHEM1401    | Chemistry & Lab | 4  | 4             |                   |
| PHYS2302    | Statics         | Not Taken Ready To Take  |               |                   |
|             |                 |  |               |                   |

|             |                                  | GE-SOCIAL SC            | IENCES - ENG ( 3 Required credits)                 | Requirement M                    |
|-------------|----------------------------------|-------------------------|--|----------------------------------|
| Course Code | Course                           | Credits Pre-Requisite 1 | Pre-Requisite 2 Pre-Requisite Met Status Take Next | Credits Earned Internal Transfer |
| PSYC1301    | Introduction to Psychology       | 3                       |  | 3                                |
| INTS2307    | Power and Society                | 3                       | Not Taken  |                                  |
| INTS1301    | Globalization                    | 3                       | Not Taken  |                                  |
| SOCI1301    | Introduction to Sociology        | 3                       | Not Taken  |                                  |
| PSYC2310    | Human Growth and Development     | 3                       | Not Taken  |                                  |
| INTS4318    | Negotiation and Mediation Models | 3                       | Not Taken  |                                  |
| COMM2310    | Media and Society                | 3                       | Not Taken  |                                  |
|             |                                  |                         |  |                                  |

|             | GE- Mandatory SOCIAL SCIENCE Course - ENG ( 3 Required credits) |                         |                 |                   |           |  |               |                |                   |
|-------------|---|-------------------------|-----------------|-------------------|-----------|--|---------------|----------------|-------------------|
| Course Code | Course  | Credits Pre-Requisite 1 | Pre-Requisite 2 | Pre-Requisite Met | Status    |  | Take Next     | Credits Earned | Internal Transfer |
| MGMT1314    | Principles of Management  | 3                       |                 |                   | Not Taken |  | Ready To Take |                |                   |
|             |   |                         |                 |                   |           |  |               |                |                   |

|             |                           | GE-Interdisciplin          | nary Seminar - ENG ( 3 cred       | its)      |               |                | Not Yet Met       |
|-------------|---------------------------|----------------------------|-----------------------------------|-----------|---------------|----------------|-------------------|
| Course Code | Course                    | Credits Pre-Requisite 1 Pr | Pre-Requisite 2 Pre-Requisite Met | Status    | Take Next     | Credits Earned | Internal Transfer |
| INDS3301    | Interdisciplinary Seminar | 3                          |                                   | Not Taken | Ready To Take |                |                   |
|             |                           |                            |                                   |           |               |                |                   |

|             |   | Re        | quired PEN      | G Program Co    | ourses ( 82 Cred  | its)      |               |                | Not Yet Met       |
|-------------|---|-----------|-----------------|-----------------|-------------------|-----------|---------------|----------------|-------------------|
| Course Code | Course  | Credits 1 | Pre-Requisite 1 | Pre-Requisite 2 | Pre-Requisite Met | Status    | Take Next     | Credits Earned | Internal Transfer |
| PENG1204    | Introduction to Petroleum Engineering             | 2         |                 |                 |                   |           |               | 2              |                   |
| PENG1205    | Physical Geology                                  | 2         |                 |                 |                   | Not Taken | Ready To Take |                |                   |
| MATH1322    | Calculus II                                       | 3         | MATH1321        |                 |                   | Not Taken | Ready To Take |                |                   |
| PENG1310    | Petroleum Exploration Engineering                 | 3         | PENG1205        |                 | Not Met           |           |               | 3              |                   |
| MATH2304    | Numerical Analysis                                | 3         | MATH1322        |                 | Not Met           | Not Taken |               |                |                   |
| CHEM2205    | Organic Chemistry                                 | 2         | CHEM1401        |                 |                   | Not Taken | Ready To Take |                |                   |
| GENG2211    | Introduction to Health, Safety and Environment    | 2         | CHEM1401        |                 |                   | Not Taken | Ready To Take |                |                   |
| PHYS2303    | Dynamics  | 3         | PHYS2302        |                 | Not Met           | Not Taken |               |                |                   |
| MATH2323    | Calculus III- Mutliple Integral and FourierSeries | 3         | MATH1322        |                 | Not Met           | Not Taken |               |                |                   |
| PENG2409    | Reservoir Fluids and Rock Properties              | 4         | CHEM2205        | PENG1205        | Not Met           | Not Taken |               |                |                   |
| PENG2310    | Drilling Systems I                                | 3         | PENG1205        |                 | Not Met           | Not Taken |               |                |                   |
| MATH3202    | Linear Algebra for Engineers                      | 2         |                 |                 |                   | Not Taken | Ready To Take |                |                   |
| GENG3303    | Mechanics of Materials                            | 3         | MATH1322        |                 | Not Met           | Not Taken |               |                |                   |
| PENG3304    | Fundamentals of Reservoir Engineering             | 3         | PENG2409        |                 | Not Met           | Not Taken |               |                |                   |
| PENG3205    | Thermodynamics for Petroleum Engineers            | 2         | PHYS2303        |                 | Not Met           | Not Taken |               |                |                   |
| PENG3206    | Statistical Applications for Petroleum Engineers  | 2         | MATH1311        | PENG2409        | Not Met           | Not Taken |               |                |                   |
| PENG3207    | Fluid Mechanics                                   | 2         | PHYS2303        |                 | Not Met           | Not Taken |               |                |                   |
| PENG3308    | Processes in Petroleum Production                 | 3         | PENG2409        |                 | Not Met           | Not Taken |               |                |                   |
| PENG3409    | Formation Evaluation                              | 4         | PENG2409        |                 | Not Met           | Not Taken |               |                |                   |
| MATH3324    | Advanced Engineering Mathematics                  | 3         | MATH2323        |                 | Not Met           | Not Taken |               |                |                   |
| PENG3311    | Drilling Systems II                               | 3         | PENG2310        |                 | Not Met           | Not Taken | ·             |                |                   |
| PENG3288    | Internship for Petroleum Engineers                | 2         | -               |                 |                   | Not Taken | Ready To Take |                |                   |
| PENG4390    | Capstone Project-I                                | 3         | PENG3308        | PENG3311        | Not Met           | Not Taken |               |                |                   |
| PENG4202    | Drilling Engineering                              | 2         | PENG2310        |                 | Not Met           | Not Taken | ·             |                |                   |
| PENG4304    | Reservoir Simulation                              | 3         | PENG3304        |                 | Not Met           | Not Taken | ·             |                |                   |
| PENG4205    | Well Testing and Analysis                         | 2         | PENG3304        | PENG3308        | Not Met           | Not Taken |               |                |                   |

| PENG4206 | Petroleum Production systems   | 2 | PENG3308 | Not Met | Not Taken |
|----------|--------------------------------|---|----------|---------|-----------|
| PENG4307 | Enhanced Oil Recovery          | 3 | PENG3304 | Not Met | Not Taken |
| PENG4309 | Integrated Reservoir Modelling | 3 | PENG4304 | Not Met | Not Taken |
| PENG4391 | Capstone Project-II            | 3 | PENG4390 | Not Met | Not Taken |
| PENG4211 | Artificial Lift                | 2 | PENG3308 | Not Met | Not Taken |
|          |                                |   |          |         |           |

|             |  |         | Option 1:       | <b>PENG Electi</b> | ves (12 credits)  |           |               | •              | Not Yet Met       |
|-------------|--|---------|-----------------|--------------------|-------------------|-----------|---------------|----------------|-------------------|
| Course Code | Course   | Credits | Pre-Requisite 1 | Pre-Requisite 2    | Pre-Requisite Met | Status    | Take Next     | Credits Earned | Internal Transfer |
| PENG4312    | Natural Gas Engineering  | 3       | CHEM2205        |                    | Not Met           | Not Taken |               |                |                   |
| PENG4313    | Reservoir Geophysics   | 3       | PENG3409        |                    | Not Met           | Not Taken |               |                |                   |
| PENG4314    | Production Logging   | 3       | PENG3409        |                    | Not Met           | Not Taken |               |                |                   |
| PENG4315    | Shale Gas Reservoirs   | 3       |                 |                    |                   | Not Taken | Ready To Take |                |                   |
| PENG4316    | Reservoir Rocks Mechanics  | 3       | PENG2310        |                    | Not Met           | Not Taken |               |                |                   |
| PENG4317    | Petroleum Economics and legislation                                | 3       | MGMT1314        |                    | Not Met           | Not Taken |               |                |                   |
| PENG4318    | High Temperature high Pressure Reservoirs                          | 3       | PENG3308        | PENG2310           | Not Met           | Not Taken |               |                |                   |
| PENG4319    | Advanced Well Test   | 3       | PENG4205        |                    | Not Met           | Not Taken |               |                |                   |
| PENG4320    | Unconventional Energy Resources                                    | 3       |                 |                    |                   | Not Taken | Ready To Take |                |                   |
| PENG4321    | Surface Production Facilities                                      | 3       | PENG3308        |                    | Not Met           | Not Taken |               |                |                   |
| PENG4322    | Offshore Drilling and Production Systems                           | 3       | PENG3308        | PENG2310           | Not Met           | Not Taken |               |                |                   |
| PENG4323    | Well Stimulation   | 3       | PENG3308        |                    | Not Met           | Not Taken |               |                |                   |
| PENG4324    | Advanced Simulation  | 3       | PENG4304        |                    | Not Met           | Not Taken |               |                |                   |
| PENG4325    | Reservoir Management   | 3       | PENG4309        |                    | Not Met           | Not Taken |               |                |                   |
| PENG4326    | Petroleum Transportation and Storage                               | 3       | PENG3308        |                    | Not Met           | Not Taken |               |                |                   |
| PENG4327    | Gas Condensate Reservoir Engineering                               | 3       | PENG3304        |                    | Not Met           | Not Taken |               |                |                   |
| PENG4328    | Artificial Intelligence Applications in Reservoir Characterization | 3       | PENG3206        |                    | Not Met           | Not Taken |               |                |                   |
| PENG4329    | Corrosion in oil and gas industry                                  | 3       | CHEM2205        |                    | Not Met           | Not Taken | ·             | ·              |                   |
| PENG4330    | Horizontal Well Technology   | 3       | PENG3311        |                    | Not Met           | Not Taken |               |                |                   |