

List of Courses for the Program

(Semester wise)

Semester 1

| S. No | Course Code | Course Title | C | L | T | P | Category | Contact Hours |
|-------|-------------|----------------------------------|-----------|-----------|----------|-----------|----------|---------------|
| 1. | UBLEC01 | Technical English-I | 2 | 2 | 0 | 0 | HS | 2 |
| 2. | UBMTC01 | Engineering Mathematics-I | 4 | 3 | 1 | 0 | BS | 4 |
| 3. | UBPHC01 | Engineering Physics-I | 3 | 3 | 0 | 0 | BS | 3 |
| 4. | UBCHC01 | Engineering Chemistry | 3 | 3 | 0 | 0 | BS | 3 |
| 5. | UBMCC03 | Engineering Mechanics | 4 | 3 | 1 | 0 | ES | 4 |
| 6. | UBBTC01 | Environmental studies | 2 | 2 | 0 | 0 | ES | 2 |
| 7. | UBPHCPA | Engineering physics lab | 1 | 0 | 0 | 2 | BS | 2 |
| 8. | UBCHCPA | Engineering Chemistry laboratory | 1 | 0 | 0 | 2 | BS | 2 |
| 9. | UBWSCPA | Engineering practice lab - 1 | 2 | 0 | 0 | 4 | ES | 4 |
| 10 | UBLECPB | Spoken English– I | 2 | 0 | 0 | 4 | EEC | 4 |
| | | TOTAL | 24 | 16 | 2 | 12 | | 30 |

L – Lecture

T – Tutorial

P – Practical / Laboratory

C - Credit

HS – Humanitarian Science

BS – Basic Science

ES – Engineering Science

PC – Professional Core

PE – Professional Elective

EEC – Employment enhancement Course

Semester: II

| S. No | Course Code | Course Title | C | L | T | P | Category | Contact Hours |
|-------|-------------|---|-----------|-----------|----------|-----------|----------|---------------|
| 1. | UBLEC02 | Technical English-II | 2 | 2 | 0 | 0 | HS | 2 |
| 2. | UBMTC02 | Engineering Mathematics-II | 4 | 3 | 1 | 0 | BS | 4 |
| 3. | UBPHC02 | Engineering Physics-II | 3 | 3 | 0 | 0 | BS | 3 |
| 4. | UBEEC01 | Basics of Electrical & Electronic Engineering | 3 | 3 | 0 | 0 | ES | 3 |
| 5. | UBITC01 | Fundamentals of computer programming | 2 | 2 | 0 | 0 | ES | 2 |
| 6. | UBMCCPA | Engineering Graphics | 3 | 3 | 2 | 2 | ES | 4 |
| 7. | UBEECPA | Basics of Electrical & Electronics Practical | 1 | 0 | 0 | 2 | ES | 2 |
| 8. | UBWSCP B | Engineering practice lab - II | 2 | 0 | 0 | 4 | BS | 4 |
| 9. | UBITCPA | Fundamentals of computer programming Lab | 1 | 0 | 0 | 2 | ES | 2 |
| 10. | UBLECPC | Spoken English– I | 2 | 0 | 0 | 4 | EEC | 4 |
| | | TOTAL | 23 | 16 | 3 | 14 | | 30 |

Semester: III

| S. No | Course Code | Course Title | C | L | T | P | Category | Contact Hours |
|-------|-------------|--|-----------|-----------|----------|----------|----------|---------------|
| 1 | UBMTC03 | Engineering Mathematics III | 4 | 3 | 1 | 0 | BS | 4 |
| 2 | UBMCC06 | Material Science | 2 | 2 | 0 | 0 | ES | 2 |
| 3 | UBPE301 | Principles of Petroleum Engineering | 4 | 4 | 0 | 0 | PC | 4 |
| 4 | UBPE302 | Petroleum Geology | 4 | 4 | 0 | 0 | PC | 4 |
| 5 | UBPE303 | Fluid Mechanics for Reservoir Fluids | 4 | 4 | 0 | 0 | PC | 4 |
| 6 | UBPE304 | Petroleum GeoPhysics | 3 | 3 | 0 | 0 | PC | 3 |
| 7 | UBMC3PH | Computer Aided Design Laboratory | 1 | 0 | 0 | 2 | ES | 2 |
| 8 | UBPE3PA | Fluid Mechanics - Petroleum Laboratory | 1 | 0 | 0 | 2 | PC | 2 |
| 9 | UBLECPD | Spoken English-I | 1 | 0 | 0 | 2 | EEC | 2 |
| | | TOTAL | 24 | 20 | 1 | 6 | - | 27 |

Semester: IV

| S. No | Course Code | Course Title | C | L | T | P | Category | Contact Hours |
|--------------------------|-------------|--------------------------------------|-----------|----|---|---|----------|---------------|
| 1 | UBMTC04 | Probability And Statistics | 4 | 4 | 0 | 0 | BS | 4 |
| 2 | UBPE401 | Drilling Operations & Equipments | 4 | 4 | 0 | 0 | PC | 4 |
| 3 | UBPE402 | Drilling Fluid & Cementation | 3 | 3 | 0 | 0 | PC | 3 |
| 4 | UBPE403 | Reservoir Engineering – I | 4 | 4 | 0 | 0 | PC | 4 |
| 5 | UBPE404 | Formation Evaluation & Well Logging | 3 | 3 | 0 | 0 | PC | 3 |
| 6 | | Core Elective – I | 3 | 3 | 0 | 0 | PC | 3 |
| 7 | UBPE4PA | Reservoir Engineering Laboratory – I | 1 | 0 | 0 | 2 | PC | 2 |
| 8 | UBPE4PB | Drilling Fluids Laboratory | 1 | 0 | 0 | 2 | PC | 2 |
| 9 | UBPE4PC | Formation Evaluation Laboratory | 1 | 0 | 0 | 2 | PC | 2 |
| 10 | UBLEC01 | Spoken English-I | 1 | 0 | 0 | 2 | EEC | 2 |
| Core Elective – I | | | | | | | | |
| 1 | UBPE405 | Petroleum Geochemistry | 3 | 3 | 0 | 0 | PE | 3 |
| 2 | UBPE406 | Natural Gas Engineering | 3 | 3 | 0 | 0 | PE | 3 |
| | | TOTAL | 24 | 21 | 0 | 8 | | 29 |

Semester: V

| S. No | Course Code | Course Title | C | L | T | P | Category | Contact Hours |
|----------------------------|-------------|------------------------------------|-----------|-----------|----------|----------|----------|---------------|
| 1 | UBPE501 | Petroleum Hazards &Risk | 4 | 4 | 0 | 0 | PC | 4 |
| 2 | UBPE502 | Reservoir Engineering-II | 4 | 4 | 0 | 0 | PC | 4 |
| 3 | UBPE503 | Production Operations & | 4 | 4 | 0 | 0 | PC | 4 |
| 4 | UBMC501 | Heat & Mass Transfer | 4 | 4 | 0 | 0 | ES | 4 |
| 5 | | Core Elective – II | 3 | 3 | 0 | 0 | PC | 3 |
| 6 | | Open Elective - I | 2 | 2 | 0 | 0 | PC | 2 |
| 7 | UBPE5PA | Production Engineering Laboratory | 1 | 0 | 0 | 2 | PC | 2 |
| 8 | UBMC5PC | Heat & Mass Transfer Laboratory | 1 | 0 | 0 | 2 | ES | 2 |
| 9 | UBPE5PB | Reservoir Laboratory | 1 | 0 | 0 | 2 | PC | 2 |
| Core Elective – II: | | | | | | | | |
| 1 | UBPE504 | Offshore structures & design | 3 | 3 | 0 | 0 | PE | 3 |
| 2 | UBPE505 | Well Controls Methods | 3 | 3 | 0 | 0 | PE | 3 |
| Open Elective – I: | | | | | | | | |
| 1 | UBPE506 | Fundamentals of Subsea Engineering | 2 | 2 | 0 | 0 | OE | 2 |
| 2 | UBPE507 | Offshore drilling | 2 | 2 | 0 | 0 | OE | 2 |
| | | TOTAL | 24 | 21 | 0 | 6 | | 27 |

Semester: VI

| S. No | Course Code | Course Title | C | L | T | P | Category | Contact Hours |
|-----------------------------|-------------|--|----|---------|---|---|----------|---------------|
| 1 | UBPE601 | Enhanced Oil Recovery | 4 | 4 | 0 | 0 | PC | 4 |
| 2 | UBPE602 | Well Testing | 4 | 4 | 0 | 0 | PC | 4 |
| 3 | UBPE603 | Well Planning & Design | 4 | 4 | 0 | 0 | PC | 4 |
| 4 | UBPE604 | Thermodynamic Properties of Reservoir Fluids | 4 | 4 | 0 | 0 | PC | 4 |
| 5 | | Core Elective – III | 3 | 3 | 0 | 0 | PC | 3 |
| 6 | | Open Elective – II | 2 | 2 | 0 | 0 | PC | 2 |
| 7 | UBSTCPA | STCW* (OPTIONAL)Extra | 1 | 2 weeks | | | EEC | |
| 8 | UBPE6PA | Petroleum Testing Laboratory | 1 | 0 | 0 | 2 | PC | 2 |
| 9 | UBPE6PB | Well Planning Practicals | 1 | 0 | 0 | 2 | PC | 2 |
| Core Elective – III: | | | | | | | | |
| 1 | UBPE605 | Advanced Drilling Methods | 3 | 3 | 0 | 0 | PE | 3 |
| 2 | UBPE606 | Unconventional Oil & Gas Resources | 3 | 3 | 0 | 0 | PE | 3 |
| Open Elective – II: | | | | | | | | |
| 1 | UBPE607 | Renewable energy resources | 2 | 2 | 0 | 0 | OE | 2 |
| 2 | UBPE608 | Energy Future | 2 | 2 | 0 | 0 | OE | 2 |
| | | TOTAL | 23 | 21 | 0 | 4 | - | 25 |

Semester: VII

| S. No | Course Code | Course Title | C | L | T | P | Category | Contact Hours |
|----------------------------|-------------|---|----|----|---|---|----------|---------------|
| 1 | UBPE701 | Petroleum Economics | 4 | 4 | 0 | 0 | PC | 4 |
| 2 | UBPE702 | Production Chemicals & Oil Field | 3 | 3 | 0 | 0 | PC | 3 |
| 3 | UBPE703 | Well completion Techniques | 3 | 3 | 0 | 0 | PC | 3 |
| 4 | UBPE704 | Reservoir Modeling, Simulation & Management | 4 | 4 | 0 | 0 | PC | 4 |
| 5 | UBPE705 | Offshore Drilling & Production | 4 | 4 | 0 | 0 | PC | 4 |
| 6 | | Core Elective – IV | 3 | 3 | 0 | 0 | PC | 3 |
| 7 | UBPE7PA | Interpretation Of Subsurface Maps | 1 | 0 | 0 | 2 | PC | 4 |
| | | Aptitude Test | - | 0 | 0 | 2 | EEC | 2 |
| | | Placement Training | - | 0 | 0 | 3 | EEC | 3 |
| Core Elective – II: | | | | | | | | |
| 1 | UBPE706 | Hydrocarbon Processing & Plant Engineering | 3 | 3 | 0 | 0 | PE | 3 |
| 2 | UBPE707 | Petrochemical & Refinery Engineering | 3 | 3 | 0 | 0 | PE | 3 |
| | | TOTAL | 22 | 21 | 0 | 7 | - | 28 |

Semester: VIII

| S. No | Course Code | Course Title | C | L | T | P | Category | Contact Hours |
|-------|-------------|------------------------------------|----|----|---|----|----------|---------------|
| 1 | UBPE 801 | Oil & Gas Project Management | 4 | 4 | 0 | 0 | PC | 4 |
| 2 | UBPE 802 | Workover Operations | 4 | 4 | 0 | 0 | PC | 4 |
| 3 | UBPE 803 | Storage, Handling & Transportation | 4 | 4 | 0 | 0 | PC | 4 |
| 4 | UBPE 804 | Field Development Plan | 4 | 4 | 0 | 0 | PC | 4 |
| 5 | UBPE 805 | Project | 8 | 0 | 0 | 10 | PC | 10 |
| | | TOTAL | 24 | 16 | 0 | 10 | - | 26 |

List of Courses for the Program

(Category wise)

Humanitarian Science

| S. No | Course Code | Course Title | C | L | T | P | Category | Contact Hours |
|-------|-------------|----------------------|---|---|---|---|----------|---------------|
| 1 | UBLEC01 | Technical English-I | 2 | 2 | 0 | 0 | HS | 2 |
| 2 | UBLEC02 | Technical English-II | 2 | 2 | 0 | 0 | HS | 2 |
| 3 | UBBTC01 | Environment Science | 2 | 2 | 0 | 0 | HS | 2 |

Basic Sciences

| S. No | Course Code | Course Title | C | L | T | P | Category | Contact Hours |
|-------|-------------|----------------------------------|---|---|---|---|----------|---------------|
| 1 | UBMTC01 | Engineering Mathematics-I | 4 | 3 | 1 | 0 | BS | 4 |
| 2 | UBPHC01 | Engineering Physics-I | 3 | 3 | 0 | 0 | BS | 3 |
| 3 | UBCHC01 | Engineering Chemistry | 3 | 3 | 0 | 0 | BS | 3 |
| 4 | UBWSCPA | Engineering Practices laboratory | 1 | 0 | 0 | 2 | BS | 2 |
| 5 | UBCHCPA | Engineering Chemistry laboratory | 1 | 0 | 0 | 2 | BS | 2 |
| 6 | UBMTC02 | Engineering Mathematics-II | 4 | 3 | 1 | 0 | BS | 4 |
| 7 | UBPHC02 | Engineering Physics-II | 3 | 3 | 0 | 0 | BS | 3 |
| 8 | UBPHCPA | Engineering Physics laboratory | 1 | 0 | 0 | 2 | BS | 2 |
| 9 | UBMTC03 | Engineering Mathematics III | 4 | 4 | 0 | 0 | BS | 4 |
| 10 | UBMTC04 | Probability and Statistics | 4 | 4 | 0 | 0 | BS | 4 |

Engineering Science

| S. No | Course Code | Course Title | C | L | T | P | Category | Contact Hours |
|-------|-------------|--|---|---|---|---|----------|---------------|
| 1 | UBMCCPA | Engineering Graphics | 3 | 0 | 2 | 2 | ES | 4 |
| 2 | UBITC01 | Fundamentals of Computer Programming | 3 | 3 | 0 | 0 | ES | 3 |
| 3 | UBITCPA | Fundamentals of Computer Programminglaboratory | 1 | 0 | 0 | 2 | ES | 2 |
| 4 | UBEEC01 | Basics of Electrical & Electronic Engineering | 3 | 3 | 0 | 0 | ES | 3 |
| 5 | UBMCC03 | Engineering Mechanics | 4 | 3 | 1 | 0 | ES | 4 |
| 6 | UBEECPA | Basics of Electrical & Electronics Practical | 1 | 0 | 0 | 2 | ES | 2 |
| 8 | UBMC306 | Material Science | 3 | 3 | 0 | 0 | ES | 3 |
| 8 | UBMC3PH | Computer Aided Design Laboratory | 1 | 0 | 0 | 2 | ES | 2 |
| 9 | UBMC501 | Heat & Mass Transfer | 4 | 4 | 0 | 0 | ES | 4 |
| 10 | UBMC5PC | Heat & Mass Transfer Laboratory | 2 | 0 | 0 | 2 | ES | 1 |

Professional Core

| S. No | Course Code | Course Title | C | L | T | P | Category | Contact hours |
|-------|-------------|--|---|---|---|---|----------|---------------|
| 1 | UBPE301 | Principles of Petroleum Engineering | 4 | 4 | 0 | 0 | PC | 4 |
| 2 | UBPE302 | Petroleum Geology | 4 | 4 | 0 | 0 | PC | 4 |
| 3 | UBPE303 | Fluid Mechanics for Reservoir Fluids | 4 | 4 | 0 | 0 | PC | 4 |
| 4 | UBPE304 | Petroleum Geo-Physics | 3 | 3 | 0 | 0 | PC | 3 |
| 5 | UBPE3PA | Fluid Mechanics - Petroleum Laboratory | 1 | 0 | 0 | 2 | PC | 2 |
| 6 | UBPE401 | Drilling Operations & Equipments | 4 | 4 | 0 | 0 | PC | 4 |
| 7 | UBPE402 | Drilling Fluid & Cementation | 3 | 3 | 0 | 0 | PC | 3 |
| 8 | UBPE403 | Reservoir Engineering – I | 4 | 4 | 0 | 0 | PC | 4 |
| 9 | UBPE404 | Formation Evaluation & Well Logging | 3 | 3 | 0 | 0 | PC | 3 |
| 10 | UBPE4PA | Reservoir Engineering Laboratory – I | 1 | 0 | 0 | 2 | PC | 2 |
| 11 | UBPE4PB | Drilling Fluids Laboratory | 1 | 0 | 0 | 2 | PC | 2 |
| 12 | UBPE4PC | Formation Evaluation Laboratory | 1 | 0 | 0 | 2 | PC | 2 |
| 13 | UBPE501 | Petroleum Hazards & Risk | 4 | 4 | 0 | 0 | ES | 4 |
| 14 | UBPE502 | Reservoir Engineering-II | 4 | 4 | 0 | 0 | PC | 4 |
| 15 | UBPE503 | Production Operations & Equipments | 4 | 4 | 0 | 0 | PC | 4 |
| 16 | UBPE5PA | Production Engineering Laboratory | 1 | 0 | 0 | 2 | PC | 2 |
| 17 | UBPE5PB | Reservoir Laboratory | 1 | 0 | 0 | 2 | PC | 2 |
| 18 | UBPE601 | Enhanced Oil Recovery | 4 | 4 | 0 | 0 | PC | 4 |
| 19 | UBPE602 | Well Testing | 4 | 4 | 0 | 0 | PC | 4 |
| 20 | UBPE603 | Well Planning & Design | 4 | 4 | 0 | 0 | PC | 4 |
| 21 | UBPE604 | Thermodynamic Properties of Reservoir Fluids | 4 | 4 | 0 | 0 | PC | 4 |
| 22 | UBPE6PA | Petroleum Testing Laboratory | 1 | 0 | 0 | 2 | PC | 2 |
| 23 | UBPE6PB | Well Planning Practicals | 1 | 0 | 0 | 2 | PC | 2 |
| 24 | UBPE701 | Petroleum Economics | 4 | 4 | 0 | 0 | PC | 4 |
| 25 | UBPE702 | Production Chemicals & Oil Field Chemistry | 3 | 3 | 0 | 0 | PC | 3 |

| | | | | | | | | |
|----|----------|---|---|---|---|----|----|----|
| 26 | UBPE703 | Wellcompletion Techniques | 3 | 3 | 0 | 0 | PC | 3 |
| 27 | UBPE704 | Reservoir Modeling, Simulation & Management | 4 | 4 | 0 | 0 | PC | 4 |
| 28 | UBPE705 | Offshore Drilling & Production Technology | 4 | 4 | 0 | 0 | PC | 4 |
| 29 | UBPE7PA | Interpretation Of Subsurface Maps Practical | 1 | 0 | 0 | 2 | PC | 2 |
| 30 | UBPE 801 | Oil & Gas Project Management | 4 | 4 | 0 | 0 | PC | 4 |
| 31 | UBPE 802 | Workover Operations | 4 | 4 | 0 | 0 | PC | 4 |
| 32 | UBPE 803 | Storage, Handling & Transportation | 4 | 4 | 0 | 0 | PC | 4 |
| 33 | UBPE 804 | Field Development Plan | 4 | 4 | 0 | 0 | PC | 4 |
| 34 | UBPE8PA | Project work & Viva – Voce | 8 | 0 | 0 | 10 | PC | 10 |

Professional Elective

| S. No | Course Code | Course Title | C | L | T | P | Category | Contact Hours |
|-------|-------------|--|---|---|---|---|----------|---------------|
| 1 | UBPE405 | Petroleum Geochemistry | 3 | 3 | 0 | 0 | PE | 3 |
| 2 | UBPE406 | Natural Gas Engineering | 3 | 3 | 0 | 0 | PE | 3 |
| 3 | UBPE504 | Offshore structures & design | 3 | 3 | 0 | 0 | PE | 3 |
| 4 | UBPE505 | Well Controls Methods | 3 | 3 | 0 | 0 | PE | 3 |
| 5 | UBPE605 | Advanced Drilling Methods | 3 | 3 | 0 | 0 | PE | 3 |
| 6 | UBPE606 | Unconventional Oil & Gas Resources | 3 | 3 | 0 | 0 | PE | 3 |
| 7 | UBPE706 | Hydrocarbon Processing & Plant Engineering | 3 | 3 | 0 | 0 | PE | 3 |
| 8 | UBPE707 | Petrochemical & Refinery Engineering | 3 | 3 | 0 | 0 | PE | 3 |

Open Elective

| S. No | Course Code | Course Title | C | L | T | P | Category | Contact Hrs |
|-------|-------------|------------------------------------|---|---|---|---|----------|-------------|
| 1 | UBPE506 | Fundamentals of Subsea Engineering | 2 | 2 | 0 | 0 | OE | 2 |
| 2 | UBPE507 | Offshore drilling | 2 | 2 | 0 | 0 | OE | 2 |
| 3 | UBPE607 | Renewable energy resources | 2 | 2 | 0 | 0 | OE | 2 |
| 4 | UBPE608 | Energy Future | 2 | 2 | 0 | 0 | OE | 2 |

Employment Enhancement Courses

| S. No | Course Code | Course Title | C | L | T | P | Category | Contact Hours |
|-------|-------------|----------------------------|---|---|---|----|----------|---------------|
| 1 | UBLECPB | Spoken English-I | 2 | 0 | 0 | 4 | EEC | 4 |
| 2 | UBLEPCPC | Spoken English-I | 2 | 0 | 0 | 4 | EEC | 4 |
| 3 | UBLECPD | Spoken English-I | 1 | 0 | 0 | 2 | EEC | 2 |
| 4 | UBLECPE | Spoken English-I | 2 | 0 | 0 | 3 | EEC | 3 |
| 5 | UBPE8PA | Project work & Viva – Voce | 8 | 0 | 0 | 10 | EEC | 10 |