Course Specifications

Programme(s) on which the course is given: Post-Graduate (Mineralogy & Petrology)
Major or Minor element of programmes: Major
Department offering the programme: Geology
Department offering the course: Geology
Academic year / Level: 00/ Post Graduated
Date of specification approval:

a- Basic Information

Title: Petroleum Geology **Code:** G665

Credit Hours: 2 Credit Hour **Lecture:** 2 Credit

Tutorial: **Practical:** -------- **Total:** 2 Credit Hours

b- Professional Information

1 – Overall Aims of Course

- Knowing advanced petroleum geology concepts, techniques, and applications.
- Introducing students to advanced topics in petroleum geology.

2 – Intended Learning Outcomes of Course (ILOs)

a- Knowledge and Understanding: By the end of this course, the student should be able to:
a1- Understand the origin, migration and accumulation of petroleum.
a2- Knowledge the histories of major oil fields

b- Intellectual Skills: By the end of this course, the student should be able to:
b1- Specify problems and finding solutions.
b2- Characterize the properties of reservoir rocks
b3- Identify the techniques of subsurface geology

c- Professional and Practical Skills: By the end of this course, the student should be able to:
c1- Apply and adopt the course topics into professional application.
c2- Solve problems using logical reasons

d- General and Transferable Skills: By the end of this course, the student should be able to:
d1- Use internet critically for communication and searching on the course topics.
d2- Write and present the petroleum geology subjects in a potentiality published way.
d3- Organize and work effectively within a team.
d4- Give effective presentations using appropriate methods.

3. Contents

Topic	Credit hours	Lecture
Introduction	4	2
Subsurface environment (rock & fluids)	4	2
Formation of petroleum	4	2
Migration and accumulation	4	2
Types of traps	4	2
Petroleum exploration	4	2
Petroleum production	4	2
Total	**28**	**14**

4 – Teaching and Learning Methods

4.1-Professional lectures

4.2- discussion sessions

5- Student Assessment Methods

5.1- Regular written exam.	to assess a1, a2
5.2- Mid-term exam.	to assess a2, c1
5.3- At the end of term exam.	to assess a1-a2, b1-b2, c1-c2
5.4- Reports and discussions	to assess d1-d2

Assessment Schedule

Assessment 1: short exam (class activities)	every two weeks.
Assessment 2: mid-term (written)	week 7
Assessment 3: final-term (written)	week 14- 15

Weighting of Assessments

Semester Work and discussions:		20 %
Mid-Term Examination	:	20%
Final-term Examination	:	60%
Total:		100%

6- List of References

6.1- Selley, Elements of Petroleum Geology

6.2-

Jordan, C.F. Jr. and Wilson, J.L., 1994, Carbonate Reservoir Rocks, in: Magoon, L.B. and Dow, W.G., eds.,The Petroleum System-From Source to Trap: AAPG Memoir #60, p. 141-158.

Morse, D.G., 1994, Siliciclastic Reservoir Rocks, in: Magoon, L.B. and Dow, W.G., eds., The Petroleum System-From Source to Trap: AAPG Memoir 60, p. 121

Schowalter, T., and P. Hess, l982, Interpretation of Subsurface Hydrocarbon Shows, AAPG, V.66,
p.1302-1327.

MacKenzie, D., 1972, Primary Stratigraphic Traps in Sandstones: AAPG Mem 16, Stratigraphic Oil & Gas Fields, p.47-63.

7- Facilities Required for Teaching and Learning

Laptop, data show, field trips to oil companies.

Course Coordinator: Dr.

Head of Department: Prof. Ahmed Al-Boghdady

Date: / / 2012