# KING SAUD UNIVERSITY College of Science



جامعة الملك سعود كلية العلوم قسم الجيولوجيا والجيوفيزياء

**Department of Geology and Geophysics** 

#### Attachment 2

### **COURSE REPORT**

## Igneous Petrology (321 Geo)

First semester 1431 - 1432

To be completed by course instructors at the end of each course and given to program coordinator.

If the course is taught in more than one location the course report should be prepared for each location by the course instructors responsible for the course in each location. A combined report should be prepared by the course coordinator and the separate location reports attached.

## **Course Report**

For guidance on the completion of this template, refer to Section 2.5 of Chapter 2 in Part 2 in this Handbook

Institution	King Saud University
College/ Departmen	: College of Science / Department of Geology & Geophysics

#### A. Course Identification and General Information

- 1. Course title and code. : Igneous Petrology (321 Geo)
- 2. If course is taught in more than one section indicate the section to which this report applies
- 3. Year and semester to which this report applies. *1st semester 1431-1432*.
- 4 Location (if not on main campus):

#### **B.** Course Delivery

1 Coverage of Planned Program			
Topics	Planned Contact Hours	Actual Contact Hours	Reason for Variations if there is a difference of more than 25% of the hours planned
Introduction, Formation and			
occurrences of the igneous rocks and	2	2	
their structures.			
The magmas and their movements	2	2	
Principals of geochemistry for minerals			
and rocks. Field relations. Igneous	2	2	
textures and structures.			
Bowen's reaction series, methods of crystallizations, Rocks' derivatives. Geochemistry of the magmas	2	2	
Chemistry of crystallisation and Crystallisation of the magma. Group of minerals. Replacement and reactions with other rocks (igneous, metamorphic and sedimentary rocks). Hybridization Geochemical classifications and the distribution of the elements in the rocks.	2	2	
Relation between magma and the heat, viscosity and replacement.	2	2	
Early and post crystallisation of the magma and the relation of the	2	2	

	_	1	
geochemistry of the igneous rocks to the			
formation of the different minerals			
Petrological coherences, changing in the			
geochemistry of the rocks, magma's	2	2	
equilibrium. Type of magmas and their	2	2	
relations to pressure and temperature			
Phase rule, solid, dry and wet magmas, a			
magma of one, two, three and multi	2	2	
components and its applications on	2	2	
rocks.			
Origin and classification of the igneous			
rocks. The evolution according to the	2	2	
descriptions of appearance, field and	2	2	
microscopic studies			
Aqueous solutions at different			
temperatures. Change of equilibrium	2	2	
according to temperature. Water and	2	2	
gaseous and their effect on the rocks			
Rock families and their classifications	2	2	
220010 Junious and them established	_	_	
Rock forming minerals, the usages of the			
rocks and minerals in military, structure			
industrial and construction sectors.	2	2	
Methods of collecting the samples.			
memous of concerns me sumpres.			
. The applications of the C.I.P.W. Norms	2	2	
and modal analyses.	2	2	
The Arabian Shield and the occurrence			
	2	2	
of the main igneous rocks			
Field trips for full three days at weekends			
riem rips joi jun miee auys ai weekenas	i	1	

#### 2. Consequences of Non Coverage of Topics

For any topics where significantly less time was spent than was intended in the course specification, or where the topic was not taught at all, comment on how significant you believe the lack of coverage is for the program objectives or for later courses in the program, and suggest possible compensating action if you believe it is needed.

Topics (if any) not Fully Covered	Significance of Lack of Coverage	Possible Compensating Action Elsewhere in the Program
Basic of minerals optics, and mineral crystal system	Should be earned by student via the two courses of 224Geo (Optical Mineralogy), and 223Geo(Crystallography).	Compensated action has been carried out by edifying some topics of Prerequisite courses), and by giving them via internet Topics videos& via text books and articles to increase their knowledge in order to grab thethe

				immediate topics.
Domains	List Teaching Strategies set out in	Were the		Difficulties Experienced (if any) in Using the Strategy and Suggested
	Course Specification	No	Yes	Action to Deal with Those Difficulties.
a. Knowledge	1. Increase their knowledge by lecturing, and by carrying out dialogue session of 5 to 10 minutes within the lecture time. 2. Encourage the Student to start their arguments and discussion. 3. Run the practical exercises by identifying the minerals by its optics characteristics under the supervision of the Instructor. 4. Increase their reading by activating the homework processing to cover the course	INO	Yes  Y  Y  Y  Y	The students needs more motivation and encouragement / start with the active students to present part of their ability by carry out class session exercises, and homework.
	topics, and to read its related scientific articles.			

b. Cognitive Skills	1 Englander - 1	Y	
o. Cognitive Skins	1. Evaluating and	1	
	assessing the		
	student		
	understanding	<b>T7</b>	No computer Lab. Available
	of homework	Y	and No PC connected to Data
	activity.		show in the lecture room /
	2. Solving all		sometimes students use their
	practical		own computers if available
	applied		own computers if available
	difficulties	$\boldsymbol{Y}$	
	within/during		
	the practical		
	sessions	$\boldsymbol{Y}$	
	related to the		
	studied topics.		
	4. Students had		
	the opportunity		
	to implements		
	what they have		
	been achieved		
	within the		
	lecturing		
	session time,	$\boldsymbol{Y}$	
	and learned		
	how to apply		
	what they have		
	taken in their		
	future life. i.e.		
	to effectuate		
	their		
	knowledge		
	skills.		
	5. Running		
	several short		
	exams		
	(Quizzes)		
	session to		
	evaluate their		
	their		
	performance.		
	6. Performing the		
	med terms and		
	final exams.		
	7. Monitoring the		
	students		
	lectures and		
	Lab.		
	attendance		
	during the time		
	duration of the		
	semester.		

c. Interpersonal Skills and	1.Pushing the		Υ	
Responsibility	student by		•	
2125ponoiointj	continuous			• The students needs
				more motivation and
	writing to gain		Y	encouragement / start
	knowledge and			with the active
	confidence in			,,
	their writing,		Y	students to present part
	dialogues, and		1	of their skills by
	increasing their			running an further
	scientific		Y	home Exercises.
	thinking.		1	
	2. Working out all			It is an essential to
	problems they			enhance and to
	face during			develop students abilities and skills in
	practical		Y	English language
	sessions.	N		ish nee
	3.Pushing the	1		isii nee
	students to			
	practise		Y	
	discussions			
	during the			
	lectures.			
	4.Encouraging			
	students to			
	present and led-			
	part of the			
	lecture.			
	5.Running a			
	continuous			
	student's			
	evaluation			
	within/througho			
	ut the semester			
	session.			

d. Numerical and Communication Skills	1. Using up-to-date computer video programs that are related to course outlines and objectives in the practical sessions	N		No Educational software licence is available/ This difficulty has been raised to the Faculty and Department administration to be solved.
	2. Utilizing the computer software and		Y	By using their personal computers.
	programs in the course, such as Microsoft office (Power Point, word, Excel) etc.  3. Increase the ability of students to utilize the internet knowledge and data to be considered as one of their educational resource to fulfil their scientific needs and knowledge.		Y	By using their personal computers.
e. Psychomotor Skills (if applicable)	<ol> <li>Monitoring the mineral and rocks thin section preparation.</li> <li>Collecting and identifying the minerals in the Lab sessions either in mega samples or under microscope</li> </ol>		Y	Applied within the field trip that have been run within the course session.

- 4. Summarize any actions you recommend for improving teaching strategies as a result of evaluations in table 3 above.
  - 1. Pushing the student to practise more homework that followed by small short quiz.
  - 2. Run a broad and continuous collaboration and teamwork discussion activities.
  - 3. Handing over most the required licensed educational of metamorphic rock processing software (if not all), to have them available for the student use within the Lab. and teaching session.
  - 4. Encouraging and pushing student to read articles that are related to course objectives, and argue their achievements; to seek their abilities of writing, reading and understanding to increase their scientific sense and knowledge.
  - 5. Students shall have different training courses of reading, typing, internet scientific search engines. Microsoft office and the scientific programs will be applied for this

$\sim$	-		
	- 12	esu	Itc•
	1		ILO.

cour	rse	iver oboje oj			o progr		i oc uppi		
<b>Results:</b>									
1 Number of s	students starting t	he course:	1	18 students					
2 Number of	students completi	ing the cours	ee:	17 students					
	ibution of Grades			1 1 7	·	1			
(1	If percentage man	No No	indicate num	bers in each 3	No	le group) %	No		
		110		/0	110	70	110		
	A	0		95- 100	0	70-74	1		
	В	1		90-94	0	65-69	4		
	C	4		85-89	0	60-64	1		
	D	5		80-84	1	< 60	7		
	F	7	OD	75-79	3				
	Denied Entry	0	OR	Denied	Entry		0		
	In Progress	0		In Progr	ress		0		
	Incomplete	0		Incomp	lete		0		
	Pass	10		Pass			10		
	Fail	7		Fail			7		
	Withdrawn	1		Withdra	ıwn		1		
4 Result Sumi	mary:								
Passed:	No 10	Percent	55.6	Failed	No	7	Percent	38.89	
Did not compl	lete No 1	Percent	5.56	Denied E	ntry No	0	Percent	0	

- Special factors (if any) affecting the results
  - The students who failed, they are not acting seriously.
  - The students attendance is too high,
  - All the students whom failed, they registered from 7 years back.
  - Their performance was below the standard, even though all attempts were applied to improve their knowledge and abilities in gaining the standard level of education.

#### The results are acceptable

6. Variations from planned student assessment processes (if any) (See items C 4 and 5 in the Course Specification.)

a. Variations (if any) from planned assessment sched	dule (C5 in Course Specification)
Variation	Reason
In-class activities were not applied as planned	Because more time has been burned up to increase their knowledge, and remove their feeling of tedious and boring
b. Variations (if any) from planned assessment proce	sses in Domains of Learning (C4 in Course Specification)
Variation	Reason
Continuous evaluation of the student inclass discussions	Students English skill is very week, so, they cannot read the scientific articles, at the same time they are not reading, and

7 Verification of Standards of Achievement (Eg. check marking of a sample of papers by others in the department. See G4 in Course Specification) (Where independent report is provided a copy should be attached.)

Method(s) of Verification	Conclusion
All the exams paper were check by the Dr. Abdullah Amri	

#### **Resources and Facilities**

- Consequences of any difficulties experienced for student 1. Difficulties in access to resources or facilities (if any) learning in the course. 1.No computer Lab. Available for 1.Students couldn't use up-to-date computer practical session.
  - 2. Data show facility is not equipped within the lecture theatre.
- programs in the practical sessions.
  - 2.Case studies related to the studied topics cannot be explained in the class.

#### $\mathbf{E}_{\cdot}$ **Administrative Issues**

1 Organizational or administrative difficulties encountered (if any):	2. Consequences of any difficulties experienced for student learning in the course.
No difficulties come upon.	

#### **Course Evaluation**

1 Student evaluation of the course:	
(Attach Survey Results if available)	
The the section of th	
a List the most important criticisms and strengths	
the strength:	
Practicing the student lecturing.	
• Quizzes followed the homework session.	
• Student using their personal computers to do	homework.
1 D C' 1 1 1 1	
b Response of instructor or course team to this evaluat	
*	o in touch with their performance, activities through out the
course.	
	10
2. Other Evaluation What evaluations were received	
	ead of department, peer observations, accreditation review, other
stakeholders etc):	
Not Star	ted (relevant) yet
a List the most important criticisms and strengths	
b Response of instructor or course team to this evaluat	ion
<b>Planning for Improvement</b>	
Progress on actions proposed for improving the country of the	urca in provious course reports.
1. Flogress on actions proposed for improving the cot	inse in previous course reports.
Actions proposed in the most recent previous course	State whether each action was undertaken, the impact, and if
1 1	-
report(s).	the proposed action was not undertaken or completed, give
	reasons.
2.04	
2. Other action taken to improve the course this semes	
	mprove the course and the results achieved. (For example,
professional development for faculty, modifications to	the course, new equipment, new teaching techniques etc.).

3. Action Plan for Next Semester/Year

Actions Required	Completion Date	Person Responsible
1. Furnish the Geology Department's	2010-2011	Head of the Department
Practical Lab with computers		Treat of the Department
2. Furnish all computers with the educational licensed programs and softwares to be used by students.	2010 - 2011	Head of the Department
3. Grouping the student in the class room to read an article and discussing it and then scripting	2010 - 2011	Head of the Department
it, followed by an evaluation analysis.		Vice-Dean of the Faculty for
4. students needs training courses in Active learning	2010 -2011	students affairs

<sup>4.</sup> Recommendations to Program Coordinator (if Required)

(Recommendations by the instructor to the program coordinator if any proposed action to improve the course would require approval at program, department or institutional level or that might affect other courses in the program.).

The essential plan is to equip the Geology Petrology Lab. with computers and its relative data program and data show, as well as providing all or most of the required educational software to be applied. This is beside the activation of a data show device located at the classrooms to be utilized in/for the lecturing and Lab purposes.

Name of Course Instructor: Assist. Professor Dr. Bassam A. Abu Amarah.		
Signature:	Date Report Completed: 28/2/1432	
Received by Program Coordinator	Date:	