Biomedical Engineering Program Specification

Course Specification of Scientific English

I. Course Identification and General Information:						
1.	Course Title:	Scientific English.				
2.	Course Code & Number:	BR111.				
3.	Credit Hours:	C.H				TOTAL CR. HRS.
		Th.	Seminar/Tu.	Pr	Tr.	
		2	-	-	-	2
4.	Study level/ semester at which this course is offered:	Second Year-First Semester.				
5.	Pre –requisite (if any):	English I and English II.				
6.	Co –requisite (if any):	None.				
7.	Program (s) in which the course is offered:	Biomedical Engineering Program.				
8.	Language of teaching the course:	English Language.				
9.	Location of teaching the course:	Biomedical Engineering Department.				
10.	Prepared By:	Assoc. Prof. Dr. Abdul-Malik Momin.				
11.	Date of Approval					

II. Course Description:

This course is designed to develop the communicative performance of Engineers who wish to improve their abilities in English when dealing with their staff, other managers, suppliers, external colleagues and other Engineers internally or internationally as needed, with the correct vocabulary, phrasing, appropriateness, context and style. The role of Technical English language on modern engineering education will be targeted. Most students need to write essays and reports for course work. Yet writing good academic English taking into account the terminologies is one of the most demanding tasks students face. Our English for Engineer courses can focus on widening the student's knowledge of engineering terminology or equally

on building their confidence in using the correct language for the situation at hand. Before this context the students should be aware of Academic English taking into account the approach of writing using grammatical and structure of the grammar. After completing this course. students will be able to understand and apply the most common technical vocabulary in the area of Biomedicall Engineering.

III. Alignments of the Course Intended learning outcomes (CILOs)		Referenced PILOs
a1	Classify general principles of academic writing and scientific techniques using basic grammar.	A2
a2	Express the main ideas related to the topics of writing with effect vocabulary.	A4
b1	Examine the effect of scientific writing in the management process using best essays.	B3
c1	Apply different techniques for writing a report in the area of Mechanical Engineering with special terminologies.	C1
d1	Assess to time factor for completion of different processes required in this course.	D4
d2	Cooperate effectively within the team in presenting the technical reports.	D5

(A) Alignment Course Intended Learning Outcomes of Knowledge and Understanding to Teaching Strategies and Assessment Strategies:

Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
a1- Classify general principles of academic writing and scientific techniques using basic grammar.	• Active Lectures.	• Written Exam. • Homework.
a2- Express the main ideas related to the topics of writing with effect vocabulary.		

Biomedical Engineering Program Specification

(B) Alignment Course Intended Learning Outcomes of Intellectual Skills to Teaching Strategies and Assessment Strategies:		
Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
b1- Examine the effect of scientific writing in the management process using best essays.	• Active Lectures. • Seminars. • Projects.	• Examination. • Homework. • Project Reports.

Biomedical Engineering Program Specification

© Alignment Course Intended Learning Outcomes of Professional and Practical Skills to Teaching Strategies and Assessment Strategies:		
Course Intended Learning Outcomes	Teaching Strategies	Assessment Strategies
c1- Apply different techniques for writing a report in the area of Mechanical Engineering with special terminologies.	• Problem Based Learning.	• Presentations.

(D) Alignment Course Intended Learning Outcomes of Transferable Skills to Teaching Strategies and Assessment Strategies:		
Course Intended Learning Outcomes	Teaching strategies	Assessment Strategies
d1- Assess to time factor for completion of different processes required in this course	• Team Work. • Directed Self – Study.	• Individual and Group Projects Reports. • Presentations
d2- Cooperate effectively within the team in presenting the technical reports.		

IV. Course Content:

A – Theoretical Aspect:

Order	Units/Topics List	Learning Outcomes	Sub -Topics List	Number of Weeks	Contact Hours
1.	Introduction to the Courses of English I and English II.	a1, a2.	• Fast Revision.	1	2
2.	The English Tense System.	a1, a2, b1.	• Present Tense. • Present Continuous Tense. • Present Perfect Tense. • Present Perfect Continuous Tense.	2	4

Head of Department
Dr. Mohammed A. Al-Olofi

Quality Assurance Unit
Ass. Prof. Dr. Mohammad Algorafi

Dean of the Faculty
Prof. Dr. Mohammed AL-Bukhaiti

Academic Development Center & Quality Assurance
Ass. Prof. Dr. Huda Al-Emad

Rector of Sana'a University
Prof. Dr. Al-Qassim Mohammed Abbas

Biomedical Engineering Program Specification

IV. Course Content:

A – Theoretical Aspect:

Order	Units/Topics List	Learning Outcomes	Sub -Topics List	Number of Weeks	Contact Hours
			• Past Tense. • Past Continuous Tense. • Past Perfect Tense. • Past Perfect Continuous Tense. • Future Tense. • Future Continuous Tense. • Future Perfect Tense. • Future Perfect Continuous Tense. • Active and Passive. • Using Nouns and Adjectives. • Abstract Nouns. • Types of Conjunctions.		
3.	Specialized Terminologies in Mechanical Engineering.	a1, a2, b1, c1, d1, d2.	• Basic Terminologies for Engineering Mechanics. • Basic Terminologies for Computer. • Basic Terminologies for Thermal System. • Basic Terminologies for Production Engineering and Design. • Basic Terminologies for Industrial Safety and Training. • Some Applied Cases: ▪ How to Read Piping and Instrumentation Diagrams? ▪ Electrical Power Equipment. ▪ Introduction to Process Control	4	8

Biomedical Engineering Program Specification

IV. Course Content:

A – Theoretical Aspect:

Order	Units/Topics List	Learning Outcomes	Sub -Topics List	Number of Weeks	Contact Hours
			and Instrumentation. ▪ Flow of Fluids through Pipes, Fittings, Valves and Pumps.		
4.	Mid-Term Exam.	a1, a2, b1, c1.	• The First Three Chapters.	1	2
5.	Punctuation.	a1, a2, b1, d1, d2.	• Capitals. • Apostrophes. • Semi-Colons. • Commas. • Quotation Marks.	1	2
6.	Reports, Case Studies and Literature Reviews.	a1, a2, b1, c1, d1, d2.	• Writing Reports. • Case Studies. • Literature Review.	2	4
7	Background to Writing.	a1, a2, b1, c1, d1, d2.	• The Purpose of Academic Writing. • Common Types of Academic Writing. • The Format of Long and Short Writing Tasks.	1	2
8.	Paraphrasing.	a1, a2, b1, c1, d1, d2.	• The Elements of Effective Paraphrasing. • Techniques for Paraphrasing.	1	2
9.	Organizing Paragraphs.	a1, a2, b1, c1, d1, d2.	• Paragraph Structure. • Development of Ideas. • Linking Paragraphs Together.	1	2
10.	Argument and	a1, a2, b1,	• Discussion Vocabulary.	1	2

Biomedical Engineering Program Specification

IV. Course Content:

A – Theoretical Aspect:

Order	Units/Topics List	Learning Outcomes	Sub -Topics List	Number of Weeks	Contact Hours
	Discussion.	c1, d1, d2.	• Organization. • The Language of Discussion. • Providing Evidence.		
11.	Final Exam.	a1, a2, b1, c1.	All the Chapters.	1	2
Number of Weeks /and Units Per Semester				**16**	**32**

V. Teaching Strategies of the Course:

- Active Lectures.
- Seminars.
- Projects.
- Problem Based Learning.
- Team Work.
- Directed Self –Study.

VI. Assignments:

No	Assignments	Aligned CILOs(symbols)	Week Due	Mark
1.	Group Activities.	a1, a2, b1, c1, d1, d2.	1-14	10
	Total			10

VII. Schedule of Assessment Tasks for Students During the Semester:

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment	Aligned Course Learning Outcomes

Head of Department
Dr. Mohammed A. Al-Olofi

Quality Assurance Unit
Ass. Prof. Dr. Mohammad Algorafi

Dean of the Faculty
Prof. Dr. Mohammed AL-Bukhaiti

Academic Development Center & Quality Assurance
Ass. Prof. Dr. Huda Al-Emad

Rector of Sana'a University
Prof. Dr. Al-Qassim Mohammed Abbas

Biomedical Engineering Program Specification

1.	Group Activities.	Weekly	10	10 %	a1, a2, b1, c1, d1, d2.
2.	Mid-Term Exam.	8 th	10	10 %	a1, a2, b1, c1.
3.	Course File.	15 th	10	10 %	a1, a2, b1, c1, d1, d2.
4.	Final Exam.	16 th	70	70 %	a1, a2, b1, c1.
	Total:		**100**	**100 %**	

VIII. Learning Resources:

- *Written in the following order: (Author - Year of publication – Title – Edition – Place of publication – Publisher).*

1- Required Textbook(s) (maximum two).

1. Alice Oshima and Ann Hogue, (2006), "Writing Academic English", Fourth Edition. Longman Academic Writing Series.
2. Eric H. Glendinning, Technology 1 and Technology 2, 2007, Oxford English for Careers New York, Oxford University Press.
3. Stephen Bailey, 2011, Academic Writing, A Handbook for International Students, Taylor & Francis or Routledge's Collection, London and New York.

2- Essential References.

1. Ibboston, Mark, (2009), "Professional English in Use (Engineering), Cambridge University Press.
2. Collins, Harpers, (1990), "Collins Cobuild English Grammar", Williams Collins Sons& Company, Ltd.

3- Electronic Materials and Web Sites *etc*.

1. www.techscribe.co.uk.
2. www.prc.dk.
3. En.wikipedia.org.
4. www.udemy.com.

Biomedical Engineering Program Specification

IX. Course Policies:	
1.	**Class Attendance:** -A student should attend not less than 75 % of total hours of the subject; otherwise he will not be able to take the exam and will be considered as exam failure. If the student is absent due to illness, he/she should bring a proof statement from university Clinic
2.	**Tardy:** - For late in attending the class, the student will be initially notified. If he repeated lateness in attending class he will be considered as absent.
3.	**Exam Attendance/Punctuality:** - A student should attend the exam on time. He is Permitted to attend an exam half one hour from exam beginning, after that he/she will not be permitted to take the exam and he/she will be considered as absent in exam.
4.	**Assignments & Projects:** - The assignment is given to the students after each chapter; the student has to submit all the assignments for checking on time.
5.	**Cheating**: - For cheating in exam, a student will be considered as fail. In case the cheating is repeated three times during his/her study the student will be disengaged from the Faculty.
6.	**Plagiarism**: Plagiarism is the attending of a student the exam of a course instead of another student. If the examination committee proofed a plagiarism of a student, he will be disengaged from the Faculty. The final disengagement of the student from the Faculty should be confirmed from the Student Council Affair of the university.
7.	**Other policies:** - Mobile phones are not allowed to use during a class lecture. It must be closed, otherwise the student will be asked to leave the lecture room - Mobile phones are not allowed in class during the examination. Lecture notes and assignments my given directly to students using soft or hard copy

Reviewed	Vice Dean for Academic Affairs and Post Graduate Studies: Asst. Prof. Dr. Tarek A.

Head of Department	Quality Assurance Unit	Dean of the Faculty	Academic Development Center & Quality Assurance
Dr. Mohammed A. Al-Olofi	Ass. Prof. Dr. Mohammad Algorafi	Prof. Dr. Mohammed AL-Bukhaiti	Ass. Prof. Dr. Huda Al-Emad

Rector of Sana'a University
Prof. Dr. Al-Qassim Mohammed Abbas

Biomedical Engineering Program Specification

By	Barakat President of Quality Assurance Unit: Assoc. Prof. Dr. Mohammed Algorafi Name of Reviewer from the Department: Assoc. Prof. Dr. Riyad Muharam
	Deputy Rector for Academic Affairs Asst. Prof. Dr. Ibrahim AlMutaa Assoc. Prof. Dr. Ahmed Mujahed Asst. Prof. Dr. Munasar Alsubri

Template for Course Plan of Scientific English

I. Information about Faculty Member Responsible for the Course:

		Office Hours					
Name of Faculty Member	Assoc. Prof. Dr. Abdul-Malik Momin						
Location& Telephone No.	Mechanical Engineering Department- 777943334	**SAT**	**SUN**	**MON**	**TUE**	**WED**	**THU**
E-mail	dramalikmomin@yahoo.com						

II. Course Identification and General Information:

1-	Course Title:	**Scientific English.**				
2-	Course Number & Code:	**BR111.**				
3-	Credit Hours:	**C.H**				**Total Cr. Hrs.**
		Th.	**Seminar/Tu.**	**Pr**	**Tr.**	
		2	**-**	**-**	**-**	**2**
4-	Study level/year at which this course is offered:	**Second Year-First Semester.**				
5-	Pre –requisite (if any):	**English I and English II.**				

Biomedical Engineering Program Specification

6-	Co –requisite (if any):	**None.**
7-	Program (s) in which the course is offered	**Biomedical Engineering Program.**
8-	Language of teaching the course:	**English Language.**
9-	System of Study:	**Semesters.**
10-	Mode of delivery:	**Lectures.**
11-	Location of teaching the course:	**Faculty of Engineering.**

III. Course Description:

This course is designed to develop the communicative performance of Engineers who wish to improve their abilities in English when dealing with their staff, other managers, suppliers, external colleagues and other Engineers internally or internationally as needed, with the correct vocabulary, phrasing, appropriateness, context and style. The role of Technical English language on modern engineering education will be targeted. Most students need to write essays and reports for course work. Yet writing good academic English taking into account the terminologies is one of the most demanding tasks students face. Our English for Engineer courses can focus on widening the student's knowledge of engineering terminology or equally on building their confidence in using the correct language for the situation at hand. Before this context the students should be aware of Academic English taking into account the approach of writing using grammatical and structure of the grammar. After completing this course. students will be able to understand and apply the most common technical vocabulary in the area of Mechanical Engineering.

IV. Intended learning outcomes (ILOs) of the course:

- Brief summary of the knowledge or skill the course is intended to develop**:**

Biomedical Engineering Program Specification

1. Classify general principles of academic writing and scientific techniques using basic grammar.
2. Express the main ideas related to the topics of writing with effect vocabulary.
3. Examine the effect of scientific writing in the management process using best essays.
4. Apply different techniques for writing a report in the area of Mechanical Engineering with special terminologies.
5. Assess to time factor for completion of different processes required in this course.
6. Cooperate effectively within the team in presenting the technical reports.

Biomedical Engineering Program Specification

V. Course Content:

A – Theoretical Aspect:

Order	Units/Topics List	Sub -Topics List	Week Due	Contact Hours
1.	Introduction to the Courses of English I and English II.	• Fast Revision.	1st	2
2.	The English Tense System.	• Present Tense. • Present Continuous Tense. • Present Perfect Tense. • Present Perfect Continuous Tense. • Past Tense. • Past Continuous Tense. • Past Perfect Tense. • Past Perfect Continuous Tense. • Future Tense. • Future Continuous Tense. • Future Perfect Tense. • Future Perfect Continuous Tense. • Active and Passive. • Using Nouns and Adjectives. • Abstract Nouns. • Types of Conjunctions.	2nd &3rd	4
3.	Specialized Terminologies in Mechanical Engineering.	• Basic Terminologies for Engineering Mechanics. • Basic Terminologies for Computer. • Basic Terminologies for Thermal System. • Basic Terminologies for Production Engineering and Design. • Basic Terminologies for Industrial Safety and Training.	4th - 7th	8

Biomedical Engineering Program Specification

		• Some Applied Cases: ▪ How to Read Piping and Instrumentation Diagrams? ▪ Electrical Power Equipment. ▪ Introduction to Process Control and Instrumentation. ▪ Flow of Fluids through Pipes, Fittings, Valves and Pumps.		
4.	Mid-Term Exam.	• The First Three Chapters.	8th	2
5.	Punctuation.	• Capitals. • Apostrophes. • Semi-Colons. • Commas. • Quotation Marks.	9th	2
6.	Reports, Case Studies and Literature Reviews.	• Writing Reports. • Case Studies. • Literature Review.	10th &11th	4
7.	Background to Writing.	• The Purpose of Academic Writing. • Common Types of Academic Writing. • The Format of Long and Short Writing Tasks.	12th	2
8.	Paraphrasing.	• The Elements of Effective Paraphrasing. • Techniques for Paraphrasing.	13th	2
9.	Organizing Paragraphs.	• Paragraph Structure. • Development of Ideas. • Linking Paragraphs Together.	14th	2
10.	Argument and Discussion.	• Discussion Vocabulary. • Organization. • The Language of Discussion. • Providing Evidence.	15th	2

11.	Final Exam.	All the Chapters.	16th	2
Number of Weeks /and Units Per Semester			**16**	**32**

VI. Teaching Strategies of the Course:

- Active Lectures.
- Seminars.
- Projects.
- Problem Based Learning.
- Team Work.
- Directed Self –Study.

Biomedical Engineering Program Specification

VII. Assignments:

No	Assignments	Aligned CILOs(symbols)	Week Due	Mark
1.	Group Activities.	a1, a2, b1, c1, d1, d2.	1-14	10
	Total			**10**

VIII. Schedule of Assessment Tasks for Students During the Semester:

No.	Assessment Method	Week Due	Mark	Proportion of Final Assessment
1.	Group Activities.	Weekly	10	10 %
2.	Mid-Term Exam.	8 th	10	10 %
3.	Course File.	15 th	10	10 %
4.	Final Exam.	16 th	70	70 %
	Total:		**100**	**100%**

IX. Learning Resources:

- *Written in the following order: (Author - Year of publication – Title – Edition – Place of publication – Publisher).*

1- Required Textbook(s) (maximum two).

1. Alice Oshima and Ann Hogue, (2006), "Writing Academic English", Fourth Edition.
   a. Longman Academic Writing Series.
2. Eric H. Glendinning, Technology 1 and Technology 2, 2007, Oxford English for Careers New York, Oxford University Press.
3. Stephen Bailey, 2011, Academic Writing, A Handbook for International Students, Taylor & Francis or Routledge's Collection, London and New York.

2- Essential References.

1. Ibboston, Mark, (2009), "Professional English in Use (Engineering), Cambridge University Press.
2. Collins, Harpers, (1990), "Collins Cobuild English Grammar", Williams Collins Sons& Company, Ltd.

Biomedical Engineering Program Specification

3- Electronic Materials and Web Sites *etc*.	
	1- www.techscribe.co.uk. 2- www.prc.dk. 3- En.wikipedia.org. 4- www.udemy.com.

Biomedical Engineering Program Specification

X. Course Policies:	
1.	**Class Attendance:** -A student should attend not less than 75 % of total hours of the subject; otherwise he will not be able to take the exam and will be considered as exam failure. If the student is absent due to illness, he/she should bring a proof statement from university Clinic
2.	**Tardy:** - For late in attending the class, the student will be initially notified. If he repeated lateness in attending class he will be considered as absent.
3.	**Exam Attendance/Punctuality:** - A student should attend the exam on time. He is Permitted to attend an exam half one hour from exam beginning, after that he/she will not be permitted to take the exam and he/she will be considered as absent in exam.
4.	**Assignments & Projects:** - The assignment is given to the students after each chapter; the student has to submit all the assignments for checking on time.
5.	**Cheating**: - For cheating in exam, a student will be considered as fail. In case the cheating is repeated three times during his/her study the student will be disengaged from the Faculty.
6.	**Plagiarism**: Plagiarism is the attending of a student the exam of a course instead of another student. If the examination committee proofed a plagiarism of a student, he will be disengaged from the Faculty. The final disengagement of the student from the Faculty should be confirmed from the Student Council Affair of the university.
7.	**Other policies:** - Mobile phones are not allowed to use during a class lecture. It must be closed, otherwise the student will be asked to leave the lecture room - Mobile phones are not allowed in class during the examination. Lecture notes and assignments my given directly to students using soft or hard copy