



قسم الهندسة الكيميائية
Department of Chemical Engineering



وزارة التعليم العالي
المعهد العالي للهندسة والتكنولوجيا
بدمياط الجديدة

تقارير المقررات قسم الهندسة الكيميائية

إعتماد مجلس القسم لتقارير المقررات قسم الهندسة
الكيميائية

بتاريخ 2023/8/28

إعتماد المجلس العلمي لتقارير المقررات قسم الهندسة
الكيميائية

بتاريخ 2023/11/6





وزارة التعليم العالي
المعهد العالي للهندسة والتكنولوجيا
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2022- 2023

تقارير المقررات لقسم الهندسة الكيميائية



Head of the department	Quality Assurance Unit Manager	Dean of the institute
Assoc.Prof.Dr./ Hend Elsayed Gadow	Assoc.Prof.Dr./ Ramadan Abdelghany Elkateb	Prof.Dr./ Osami Elsaeed Rageh



وزارة التعليم العالي
المعهد العالي للهندسة والتكنولوجيا
بدمياط الجديدة



مستوى خامس



Annual Course Report: Computer applications in Chemical Engineering

A. Basic Information

Program Title	Chemical Engineering
Department offering the Program	Chemical Engineering Department
Department Responsible for the Course	Chemical Engineering Department
Course Code	CHE 501
Year/ Level	Level 5
Specialization	Major
Authorization date of course report	2/2023
Exam Committee Selection Rule	Commissioning of the Institute of Management
External Revision of Examination	--
Lecturers Number:	1

Teaching hours	Lectures	Tutorial	Practical
	2	-	2

B. Specialized information:

1. Statistics

Subject		Percentage
Students attending the course		100%
Students completing the course		98%
Results	Passed	91.84%
	Failed	8.16%
Grading of successful students	Excellent	12.2%
	Very Good	30.6%
	Good	34.6%
	Pass	12.3%

2. Course Teaching:

No.	Topics	Lectures	Tutorial	Practical
1	Introduction Practical Application of MATLAB for some problem of chemical Engineering	4	-	4
2	Equations of state Practical Application of MATLAB for some problem of chemical Engineering	4	-	4



Annual Course Report: Computer applications in Chemical Engineering

3	Vapor- liquid Equilibrium Practical Application of MATLAB for some problem of chemical Engineering	4	-	4
4	Chemical reaction Equilibrium Practical Application of MATLAB for some problem of chemical Engineering	4	-	4
5	Mass Balances with recycle stream Practical Application of MATLAB for some problem of chemical Engineering	4	-	4
6	Chemical reactors Practical Application of MATLAB for some problem of chemical Engineering	4	-	4
7	MATLAB overview Practical Application of MATLAB for some problem of chemical Engineering	4	-	4
Total		28	-	28

- Topics taught as a percentage of the content specified: 90 %
- Lecturers commitment of the course content: 89 %
- Used Teaching and Learning Methods

No	Topics	Face-to-Face Lecture	Online Lecture	Flipped Classroom	Presentation and movies	Discussion	Problem solving	Brain storming	Projects	Site visits	Self-learning and Research	Cooperative	Discovering	Modeling	Lab
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Annual Course Report: Computer applications in Chemical Engineering

7	MATLAB overview Practical Application of MATLAB for some problem of chemical Engineering	x	x			X	X													X
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- Student Assessment:

No.	Assessment Method	Weights
1	Midterm examination	10%
2	Semester work (sheets, quizzes)	20%
3	Practical Examination	10%
4	Final term examination	60%
Total		100%

3. Facilities Required for Teaching and Learning:

No.	Facility	No.	Facility
1	Lecture classroom	5	Data show system
2	Presenter	6	Sound system
3	White board		
4	Computer lab		

4- Administrative Constraints:

No.	Constraints
1	-----

5- Student Evaluation Result of the Course:

No.	Evaluation Result
1	77.66%

6- Course enhancement suggestions

No.	Suggestions
1	Use more advanced programs

7- Comments from external evaluator(s) (if exists):

No.	Comments
1	برجاء مراجعة عدد الساعات المخصصة للمحاضرات حيث أن عدد الساعات في توصيف المقرر 2 و عدد الساعات في توصيف البرنامج 3.



Annual Course Report: Computer applications in Chemical Engineering

2	مراجعة أهداف المقرر حيث أن الهدف الثاني ليس له علاقة بمحتوى المقرر.
3	مراجعة مخرجات التعلم حيث أن بعضها لا علاقة له بالمقرر.
4	بالنسبة لمحتوى المقرر فقد بدأ بالتطبيقات باستخدام MATLAB و ذلك قبل إعطاء فكرة عامة عنه و الذي تمت حوالى فى الاسبوع السابع
5	ما هو المقصود بكلمة Presenter الموجودة فى أغلب المواد تحت الطرق أو الوسائل المستخدمة فى التعليم و التعلم؟ إذا كان المقصود هو عضو هيئة التدريس فهو من التأكيد لا يمكن إعتباره من ضمن الوسائل المستخدمة فى التعليم و التعلم.

8- What has been implemented of the student's suggestions in the previous year?

No.	Suggestions
1	Introducing real models of industrial applications.

9- What has not been implemented of the suggestions (give reasons)?

No.	Suggestions	Reasons
1	Integrating work experiences with education.	Lack of time for the academic term.

10- What has been implemented of the action plan in the previous year?

No.	Suggestions
1	Increasing the applications by design heat exchanger and distillation units and discussion aspect with students

11- Action plan for next academic year

No.	Areas of development	Description of development	Completion date	Person responsible
1	Use more advanced programs	Apply advanced chemical engineering programs such as java program.	2023-2024	Prof. Dr. Taha Farag

Course Coordinator: Prof. Dr. Taha Ibrahim Farrag
Head of Department: Associate prof. Hend Elsayed Gadow
Date of Approval: 2/2023



Annual Course Report: Petrochemical Engineering

A. Basic Information

Program Title	Chemical Engineering
Department offering the Program	Chemical Engineering Department
Department Responsible for the Course	Chemical Engineering Department
Course Code	CHE 502
Year/ Level	Level 5
Specialization	Major
Authorization date of course report	3/2023
Exam Committee Selection Rule	Commissioning of the Institute of Management
External Revision of Examination	--
Lecturers Number:	1

Teaching Hours	Lectures	Tutorial	Practical
	2	2	-

B. Specialized information:

1. Statistics

Subject		Percentage
Students attending the course		100%
Students completing the course		100%
Results	Passed	79.31%
	Failed	20.69%
Grading of successful students	Excellent	0%
	Very Good	27.6%
	Good	17.2%
	Pass	34.4%

2. Course Teaching:

No.	Topics	Lectures	Tutorial	Practical
1	Petroleum chemistry; occurrence and composition of crude oil	2	2	-
2	Distillation	2	2	-
3	catalytic and thermal cracking	6	6	-
4	Alkylation	2	2	-
5	Hydrogenation	2	2	-
6	Isomerization	2	2	-
7	Polymerization	2	2	-
8	Techniques and economics of the production of basic and intermediate petrochemicals as well as some end products	10	10	-
Total		28	28	-

- Topics taught as a percentage of the content specified: 85 %

- Lecturers commitment of the course content: 91 %



Annual Course Report: Petrochemical Engineering

- Used Teaching and Learning Methods

No	Topics	Face-to-Face Lecture	Online Lecture	Flipped Classroom	Presentation and movies	Discussion	Problem solving	Brain storming	Projects	Site visits	Self-learning and Research	Cooperative	Discovering	Modeling	Lab
1	Petroleum chemistry; occurrence and composition of crude oil	x	X	X	x	X									
2	Distillation	x	X			X	x								
3	catalytic and thermal cracking	x	X		X	X									
4	Alkylation	x	X	x		X					X				
5	Hydrogenation	x	X	x		X					X				
6	Isomerization	x	X	x		X					X				
7	Polymerization	x	X	x		X					X				
8	Techniques and economics of the production of basic and intermediate petrochemicals as well as some end products	x	X		X						X				

- Student Assessment:

No.	Assessment method	Weights
1	Midterm examination	20%
2	Semester work (sheets, quizzes)	20%
3	Final term examination	60%
Total		100%

3. Facilities Required for Teaching and Learning:

No.	Facility	No.	Facility
1	Lecture classroom	4	Data show system
2	Presenter	5	Sound system



Annual Course Report: Petrochemical Engineering

3	White board
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4- Administrative Constraints:

Constraints
No constraints

5- Student Evaluation Result of the Course:

No.	Evaluation Result
1	73.58%

6- Course enhancement suggestions

No.	Suggestions
1	Identify the different figures that simulate the processes in flow sheets.

7- Comments from external evaluator(s) (if exists):

No.	Comments
1	يجب أن يتم مراجعة أهداف المقرر و التي تم ذكر فيها أنه يتم استخدام computational system في petrochemical engineering و هو غير واضح من المحتوى المذكور للمقرر
2	ما هو المقصود بكلمة Presenter الموجودة في أغلب المواد تحت الطرق أو الوسائل المستخدمة في التعليم و التعلم؟ إذا كان المقصود هو عضو هيئة التدريس فهو من التأكيد لا يمكن إعتباره من ضمن الوسائل المستخدمة في التعليم و التعلم

8- What has been implemented of the student's suggestions in the previous year?

No.	Suggestions
1	Improve self-study skills

9- What has not been implemented of the suggestions (give reasons)?

No.	Suggestions	Reasons
1	Manufacture of some petrochemical products in the laboratory	Not enough chemicals

10- What has been implemented from the action plan in the previous year?

No.	Suggestions
1	Make some scientific visits for petrochemical plants.

11- Action plan for next academic year

No.	Areas of development	Description of development	Completion date	Person responsible
1	Adding some scientific references in the electronic library of the institute.	Adding some scientific references that deal with treating crude oil and natural gas.	2023-2024	Institute management

Course Coordinator: Dr. / Sohier Abo Bakr

Head of Department: Assoc.prof. Hend Elsayed Gadow

Date of Approval: 3/2023



Annual Course Report: Industrial Technologies in Chemical Engineering

A. Basic Information

Program Title	Chemical Engineering
Department offering the Program	Chemical Engineering Department
Department Responsible for the Course	Chemical Engineering Department
Course Code	CHE503
Year/ Level	Level 5
Specialization	Major
Authorization data of course report	2/2023
Exam Committee Selection Rule	Commissioning of the Institute of Management
External Revision of Examination	--
Lecturers Number:	1

Teaching hours	Lectures	Tutorial	Practical
	2	-	2

B. Specialized information:

1. Statistics

Subject		Percentage
Students attending the course		100%
Students completing the course		97%
Results	Passed	95.45%
	Failed	4.55%
Grading of successful students	Excellent	9%
	Very Good	9.1%
	Good	25.8%
	Pass	51.5%

2. Course Teaching:

No.	Topics	Lectures	Tutorial	Practical
1	Introduction of the main basics and concepts of chemical industries Practical <ul style="list-style-type: none"> Introduction on laboratory apparatus for some creation of some organic compounds 	2	-	2
2	Industries on chemical creation of some aromatic compounds involving nitration and sulphonation. Practical <ul style="list-style-type: none"> Synthesis of nitronaphthalene Sulphonation processes of some aromatic compounds 	6	-	6



Annual Course Report: Industrial Technologies in Chemical Engineering

3	Industries on chemical creation of some aromatic compounds involving halogenation and oxidation. Practical <ul style="list-style-type: none"> Videos showing some industries on halogenated and some organic compounds by oxidation process 	6	-	6
4	Some chemical industries that concern with polymerization process Practical <ul style="list-style-type: none"> Visits to factories that concern with polymerization process 	6		6
5	Flow charts of some chemical industries Practical <ul style="list-style-type: none"> Video learning of some movies on industries were studied through flow charts 	4		4
6	Study of chemical industry on some knitting of some natural fibers as cotton and wool. Practical <ul style="list-style-type: none"> Discussion some problems on some chemical industries and solving 	4		4
Total		28		28

- Topics taught as a percentage of the content specified: 93%
- Lecturers commitment of the course content: 96%

Used Teaching and Learning Methods



Annual Course Report: Industrial Technologies in Chemical Engineering

	compounds by oxidation process														
4	Some chemical industries that concern with polymerization process Practical • Visits to factories that concern with polymerization process	x	x			x						X			X
5	Flow charts of some chemical industries Practical • Video learning of some movies on industries were studied through flow charts	x	x			X						X			X
6	Study of chemical industry on some knitting of some natural fibers as cotton and wool. Practical • Discussion some problems on some chemical industries and solving	x	x			X						X			X



Annual Course Report: Industrial Technologies in Chemical Engineering

- Student Assessment:

No.	Evaluation method	Weights
1	Midterm examination	10%
2	Semester work (sheets, quizzes)	20%
3	Practical Examination	10%
4	Final term examination	60%
Total		100%

3. Facilities Required for Teaching and Learning:

No.	Facility	No.	Facility
1	Lecture classroom	5	Data show system
2	Presenter	6	Sound system
3	White board		
4	Lab		

4- Administrative Constraints:

No.	Constraints
1	----

5- Student Evaluation Result of the Course:

No.	Evaluation Result
1	68.4%

6- Course enhancement suggestions

No.	Suggestions
1	Make visits to industrial plants.

7- Comments from external evaluator(s) (if exists):

No.	Comments
1	Review writing references for courses in a uniform style

8- What has been implemented of the student's suggestions in the previous year?

No.	Suggestions
1	Synesis of some products in laboratory scale

9- What has not been implemented of the suggestions (give reasons)?

No.	Suggestions	Reasons
1	----	-----



Annual Course Report: Industrial Technologies in Chemical Engineering

10- What has been implemented of the action plan in the previous year?

No.	Suggestions
1	Convert laboratory scale to small pilot plant

11- Action plan for next academic year

No.	Areas of development	Description of development	Completion date	Person responsible
1	Application of modern teaching methods	Divide the students into groups to present an applied part about the contents of the course	2023-2024	Institute management

Course Coordinator: Dr. Yasser Tawfiq

Head of Department: Associate prof. Hend Gadow

Date of Approval: 2/2023



Annual Course Report: Gas Engineering

A. Basic Information

Program Title	Chemical Engineering
Department offering the Program	Chemical Engineering Department
Department Responsible for the Course	Chemical Engineering Department
Course Code	CHE 413
Year/ Level	Level 4
Specialization	Major
Authorization data of course report	3/2023
Exam Committee Selection Rule	Commissioning of the Institute of Management
External Revision of Examination	--
Lecturers Number:	1

Teaching Hours	Lectures	Tutorial	Practical
	2	2	-

B. Specialized information:

1. Statistics

Subject		Percentage
Students attending the course		100%
Students completing the course		100%
Results	Passed	93.1%
	Failed	6.9%
Grading of successful students	Excellent	22.5%
	Very Good	12%
	Good	27.6%
	Pass	31%

2. Course Teaching:

No.	Topics	Lecture	Exercise	laboratory
1	Characterization of natural gas systems	4	4	-
2	Properties of natural gas systems	4	4	-
3	Product specification	2	2	-
4	Natural gas phase behavior	2	2	-
5	Oil and gas separation technology	2	2	-
6	Methods used to remove liquids from gas in separators	2	2	-
7	Methods used to remove gas from oil in separator	2	2	-
8	Classification and common features of separators	4	4	-



Annual Course Report: Gas Engineering

7	Methods used to remove gas from oil in separator	x	x			x	x	x						
8	Classification and common features of separators	x	x			x	x				x			
9	Natural gas dehydration	x	x			x	x				x			
10	Overview of sweetening, and liquefaction.	x	x	x		x								

- Student Assessment:

No.	Evaluation method	Weights
1	Midterm examination	20%
2	Semester work (sheets, quizzes, presentation)	20%
3	Final term examination	60%
Total		100%

3. Facilities Required for Teaching and Learning:

No.	Facility	No.	Facility
1	Lecture classroom	4	Data show system
2	Presenter	5	Sound system
3	White board		

4- Administrative Constraints:

No.	Constraints
1	There are no constraints

5- Student Evaluation Result of the Course:

No.	Evaluation Result
1	81.89%

6- Course enhancement suggestions

No.	Suggestions
1	Support content information by making field visits
2	Include information and examples from practical life to facilitate and clarify the idea



Annual Course Report: Gas Engineering

7- Comments from external evaluator(s) (if exists):

No.	Comments
1	يجب أن يتم مراجعة أهداف المقرر وكذلك مخرجات التعلم حيث أنه لا علاقة لهم بمحتوى المقرر
2	ما هو المقصود بكلمة Presenter الموجودة في أغلب المواد تحت الطرق أو الوسائل المستخدمة في التعليم و التعلم؟ إذا كان المقصود هو عضو هيئة التدريس فهو من التأكيد لا يمكن إعتباره من ضمن الوسائل المستخدمة في التعليم و التعلم.

8- What has been implemented of the student's suggestions in the previous year?

No.	Suggestions
1	There were no suggestions as the previous year, the subject was not taught

9- What has not been implemented of the suggestions (give reasons)?

No.	Suggestions	Reasons
1	-----	-----

10- What has been implemented from the action plan in the previous year?

No.	Action
1	Adding some scientific reference in the electronic library of the institute.

11- Action plan for next academic year

No.	Areas of development	Description of development	Completion date	Person responsible
1	Application of modern teaching methods	Divide the students into groups to present an applied part about the contents of the course	2023-2024	Dr. Riham Atef
2	Increasing visual aids that help understanding the content	Increasing the explanatory videos in the teaching content	2023-2024	Dr. Riham Atef

Course Coordinator: Dr. Riham Atef

Head of Department: Assoc.prof. Hend Elsayed Gadow

Date of Approval: 3/2023



Annual Course Report: Industrial safety

A. Basic Information

Program Title	Chemical Engineering
Department offering the Program	Chemical Engineering Department
Department Responsible for the Course	Chemical Engineering Department
Course Code	CHE 520
Year/ Level	Level 5
Specialization	Major
Authorization data of course report	3/2023
Exam Committee Selection Rule	Commissioning of the Institute of Management
External Revision of Examination	--
Lecturers Number:	1

Teaching hours	Lectures	Tutorial	Practical
	2	2	-

B. Specialized information:

1. Statistics

Subject		Percentage
Students attending the course		100%
Students completing the course		100%
Results	Passed	96.49%
	Failed	3.51%
Grading of successful students	Excellent	68.3%
	Very Good	17.5%
	Good	8.8%
	Pass	1.8%

2. Course Teaching:

No.	Topics	Lectures	Tutorial	Practical
1	Introduction in safety	4	4	-
2	Preventing emergencies in the process of industry	4	4	-
3	Human error	4	4	-
4	Identification and assessment of hazards, Fires and explosions	6	6	-
5	Case studies of hazard of plant	6	6	-
6	Miscellaneous topics to be covered by invited	4	4	-



Annual Course Report: Industrial safety

	lecturers			
Total		28	28	

- Topics taught as a percentage of the content specified: 93 %
- Lecturers commitment of the course content: 92 %
- Used Teaching and Learning Methods

No	Topics	Face-to-Face Lecture	Online Lecture	Flipped Classroom	Presentation and movies	Discussion	Problem solving	Brain storming	Projects	Site visits	Self-learning and Research	Cooperative	Discovering	Modeling	Lab
1	Introduction in safety	x	x			x					x				
2	Preventing emergencies in the process of industry	x	x	x		x					x				
3	Human error	x	x			x					x				
4	Identification and assessment of hazards, Fires and explosions	x	x	x		x					x				
5	Case studies of hazard of plant	x	x	x		x					x				
6	Miscellaneous topics to be covered by invited lecturers	x	x	x		x					x				



Annual Course Report: Industrial safety

- Student Assessment:

No.	Evaluation method	Weights
1	Midterm examination	20%
2	Semester work (sheets, quizzes, presentation)	20%
3	Final term examination	60%
Total		100%

3. Facilities Required for Teaching and Learning:

No.	Facility	No.	Facility
1	Lecture classroom	4	Data show system
2	Presenter	5	Sound system
3	White board		

4- Administrative Constraints:

No.	Constraints
1	There are no constraints

5- Student Evaluation Result of the Course:

No.	Evaluation Result
1	84.49%

6- Course enhancement suggestions

No.	Suggestions
1	Introducing more varieties of real models of industrial applications.

7- Comments from external evaluator(s) (if exists):

No.	Comments
1	مراجعة أهداف المقرر و كذلك مخرجات التعلم لتكون مرتبطة بما يتم تدريسه في المقرر.
2	ما هو المقصود بكلمة Presenter الموجودة في أغلب المواد تحت الطرق أو الوسائل المستخدمة في التعليم و التعلم؟ إذا كان المقصود هو عضو هيئة التدريس فهو من التأكيد لا يمكن إعتباره من ضمن الوسائل المستخدمة في التعليم و التعلم.

8- What has been implemented from the student's suggestions in the previous year?

No.	Suggestions
1	Invitation of people from the industrial field to present applied examples
2	Integrating work experiences with education.

9- What has not been implemented from the suggestions (give reasons)?

No.	Suggestions	Reasons
	-	-



Annual Course Report: Industrial safety

10- What has been implemented from the action plan in the previous year?

No.	Action
1	Students learned to produce and evaluate in a form directed to an audience: writing an article and presentation .

11- Action plan for next academic year

No.	Areas of development	Description of development	Completion date	Person responsible
1	Application of modern teaching methods	Divide the students into groups to present an applied part about the contents of the course	2023-2024	Dr.Mohamed fakeeh

Course Coordinator: Dr. Mohamed fakeeh

Head of Department: Associate prof. Hend Elsayed Gadow

Date of Approval:3/2023



Annual Course Report: Plant Design

A. Basic Information

Program Title	Chemical Engineering
Department offering the Program	Chemical Engineering Department
Department Responsible for the Course	Chemical Engineering Department
Course Code	CHE 504
Year/ Level	Level 5
Specialization	Major
Authorization data of course report	8/2023
Exam Committee Selection Rule	Commissioning of the Institute of Management
External Revision of Examination	--
Lecturers Number:	1

Teaching Hours	Lectures	Tutorial	Practical
	2	2	-

B. Specialized information:

1. Statistics

Subject		Percentage
Students attending the course		100%
Students completing the course		100%
Results	Passed	92.11%
	Failed	7.89%
Grading of successful students	Excellent	7.9%
	Very Good	13.2 %
	Good	26.3 %
	Pass	44.7%

2. Course Teaching:

No.	Topics	Lecture	Exercise	laboratory
1	Process choice, synthesis and screening of alternatives	4	4	-
2	Project planning	2	2	-
3	Construction of a detailed flow sheet.	2	2	-
4	Material and energy balances	2	2	-
5	Conservation of material and energy flows	4	4	-
6	Detailed design of equipment: size, construction details, materials of construction, instrumentation and control	4	4	-
7	Process economics: capital cost estimation, manufacturing cost estimation, profit forecast, return on investment - Sensitivity to errors in cost estimates	4	4	-



Annual Course Report: Plant Design

8	Venture analysis: the combined effect of technological and commercial uncertainties, the quantification of risk - Planning investment.	4	4	-
9	Safety and environmental issues	2	2	
Total		28	28	-

- Topics taught as a percentage of the content specified: 94 %
- Lecturers commitment of the course content: 94 %
- Used Teaching and Learning Methods

No	Topics	Face-to-Face Lecture	Online Lecture	Flipped Classroom	Presentation and movies	Discussion	Problem solving	Brain storming	Projects	Site visits	Self-learning and Research	Cooperative	Discovering	Modeling	Lab
1	Process choice, synthesis and screening of alternatives	x	x			x									
2	Project planning	x	x			x									
3	Construction of a detailed flow sheet.	x	x				x								
4	Material and energy balances	x	x				x	x	x						
5	Conservation of material and energy flows	x	x			x	x	x	x						
6	Detailed design of equipment: size, construction details, materials of construction, instrumentation and control	x	x			x	x	x	x						



Annual Course Report: Plant Design

7	Process economics: capital cost estimation, manufacturing cost estimation, profit forecast, return on investment - Sensitivity to errors in cost estimates	x	x															
8	Venture analysis: the combined effect of technological and commercial uncertainties, the quantification of risk - Planning investment.	x	x		x													
9	Safety and environmental issues	x	x		x													

- Student Assessment:

No.	Evaluation method	Weights
1	Midterm examination	20%
2	Semester work (sheets, quizzes, presentation)	20%
3	Final term examination	60%
Total		100%

3. Facilities Required for Teaching and Learning:

No.	Facility	No.	Facility
1	Lecture classroom	4	Data show system
2	Presenter	5	Sound system
3	White board		

4- Administrative Constraints:

No.	Constraints
1	There are no constraints

5- Student Evaluation Result of the Course:

No.	Evaluation Result
1	72.66%

6- Course enhancement suggestions

No.	Suggestions
1	Support content information by making field visits



Annual Course Report: Plant Design

2	Include information and examples from practical life to facilitate and clarify the idea
3	Allow students to make mass and energy balance for a whole realistic process and review them together

7- Comments from external evaluator(s) (if exists):

No.	Comments
1	يجب أن يتم مراجعة أهداف المقرر وكذلك مخرجات التعلم حيث أن بعضها لا علاقة له بمحتوى المقرر
2	ما هو المقصود بكلمة Presenter الموجودة في أغلب المواد تحت الطرق أو الوسائل المستخدمة في التعليم و التعلم؟ إذا كان المقصود هو عضو هيئة التدريس فهو من التأكيد لا يمكن إعتباره من ضمن الوسائل المستخدمة في التعليم و التعلم.

8- What has been implemented of the student's suggestions in the previous year?

No.	Suggestions
1	Provide field visits
2	Dividing the students into groups, each of whom will create a model for designing a factory for a specific industry and making a discussion with them

9- What has not been implemented of the suggestions (give reasons)?

No.	Suggestions	Reasons
1	-----	-----

10- What has been implemented from the action plan in the previous year?

No.	Action
1	Possessing the skill of storytelling, which is considered one of the skills that most increases student participation and raises their level of interaction

11- Action plan for next academic year

No.	Areas of development	Description of development	Completion date	Person responsible
1	Application of modern teaching methods	Divide the students into groups to present an applied part about the contents of the course	2023-2024	Dr. Riham Atef

Course Coordinator: Dr. Riham Atef

Head of Department: Assoc.prof. Hend Elsayed Gadow

Date of Approval: 8/2023



Annual Course Report: Petroleum refining engineering

A. Basic Information

Program Title	Chemical Engineering
Department offering the Program	Chemical Engineering Department
Department Responsible for the Course	Chemical Engineering Department
Course Code	CHE 505
Year/ Level	Level 5
Specialization	Major
Authorization data of course report	7/2023
Exam Committee Selection Rule	Commissioning of the Institute of Management
External Revision of Examination	--
Lecturers Number:	1

Teaching hours	Lectures	Tutorial	Practical
	2	2	-

B. Specialized information:

1. Statistics

Subject		Percentage
Students attending the course		100%
Students completing the course		98.4%
Results	Passed	98.39%
	Failed	1.61%
Grading of successful students	Excellent	27.5%
	Very Good	27.4%
	Good	22.6%
	Pass	21%

2. Course Teaching:

No.	Topics	Lectures	Tutorial	Practical
1	Classification of Crude Oils, Composition of Crude Oils	2	2	-
2	Physical and Chemical Properties of Crude oil and Oil Products	2	2	-
3	Evaluation of Crude Oil	2	2	-
4	Crude Oil Pre-treatment, Fractionation of Crude Oil (Atmospheric Vacuum Distillation, Light End Fractionation, Process Description)	4	4	-
5	Thermal Cracking and Coking Processes	2	2	-



Annual Course Report: Petroleum refining engineering

	Wax Deoiling)														
10	Oil Products – Properties and Specifications, Description of Process Flow and Calculations- (Oil Gases, Gasoline, Kerosene, Jet Fuel, Gas Oil, Diesel Oil, Fuel Oil, Asphalt, Greases and Wax)	x	x			x	x								
11	Safety and Environmental Aspects in Refining (Air Quality, Sulfur Recovery, Wastes in Refinery Units, Fugitive Emissions)	x	x	x		x									

- Student Assessment:

No.	Evaluation method	Weights
1	Midterm examination	20%
2	Semester work (sheets, quizzes)	20%
3	Final term examination	60%
Total		100%

3. Facilities Required for Teaching and Learning:

No.	Facility	No.	Facility
1	Lecture classroom	4	Data show system
2	Presenter	5	Sound system
3	White board		

4- Administrative Constraints:

No.	Constraints
1	-----



Annual Course Report: Petroleum refining engineering

5- Student Evaluation Result of the Course:

No.	Evaluation Result
1	69.64%

6- Course enhancement suggestions

No.	Suggestions
1	Make visit of petroleum refinery plants
2	Improve lecture notes

7- Comments from external evaluator(s) (if exists):

No.	Comments
1	No comment

8- What has been implemented from the student's suggestions in the previous year?

No.	Suggestions
1	Opening the field for brainstorming and discussion about the topics of the curriculum.
2	Transplant and assess pedagogy utilizing such technologies to enhance students' learning.

9- What has not been implemented from the suggestions (give reasons)?

No.	Suggestions	Reasons
1	Integrating work experiences with education.	Lack of time for the academic term, which led to a lack of information that was prepared for presentation

10- What has been implemented from the action plan in the previous year?

No.	Suggestions
1	Asking questions for discussion and asking them to search for more applications

11- Action plan for next academic year

No.	Areas of development	Description of development	Completion date	Person responsible
1	Integrating work experiences with education.	Make some scientific visits for petroleum refinery plants	2023-2024	Institute management

Course Coordinator: Dr. / Sohier Abo Bakr

Head of Department: Asso.prof. Hend Elsayed Gadow

Date of Approval: 7/2023



Annual Course Report: Quality assurance and engineering reliability

A. Basic Information

Program Title	Chemical Engineering
Department offering the Program	Chemical Engineering Department
Department Responsible for the Course	Chemical Engineering Department
Course Code	ENG 415
Year/ Level	Level 5
Specialization	Major
Authorization data of course report	7/2023
Exam Committee Selection Rule	Commissioning of the Institute of Management
External Revision of Examination	--
Lecturers Number:	1

Teaching hours	Lectures	Tutorial	Practical
	2	2	-

B. Specialized information:

1. Statistics

Subject		Percentage
Students attending the course		100%
Students completing the course		100%
Results	Passed	98%
	Failed	2%
Grading of successful students	Excellent	10.2%
	Very Good	8.2%
	Good	40.8%
	Pass	38.8%

2. Course Teaching:

No.	Topics	Lectures	Tutorial	Practical
1	The meaning of standardization and its methods	2	2	-
2	Define of STM, CAS, ISO, GMP, quality control and quality assurance.	4	4	-
3	Standardization of gases and their applications according to standard	2	2	-
4	Standardization of liquids and their applications according to standard	4	4	-



Annual Course Report: Quality assurance and engineering reliability

4	Standardization of liquids and their applications according to standard	x	x			x									
5	Standardization of materials and their applications according to standard	x	x			x									
6	Standardization of tools, pipe lines and their applications according to standard	x	x			x	x				x				
7	Standardization of instruments and reactors and their applications according to standard	x	x			x	x								
8	Methods of quality control	x	x			x	x								
9	Reliability on product quality.	x	x			x	x								

- Student Assessment:

No.	Assessment Method	Weights
1	Midterm examination	20%
2	Semester work	20%
4	Final term examination	60%
Total		100%

3. Facilities Required for Teaching and Learning:

No.	Facility	No.	Facility
1	Lecture classroom	4	Data show system
2	Presenter	5	Wireless internet
3	White board	6	Sound system

4- Administrative Constraints:

Constraints
No constraints



Annual Course Report: Quality assurance and engineering reliability

5- Student Evaluation Result of the Course:

No.	Evaluation Result
1	66.2%

6- Course enhancement suggestions

No.	Suggestions
1	Include the modern technology in quality assurance in lecture notes

7- Comments from external evaluator(s) (if exists):

No.	Comments
1	مراجعة أهداف المقرر و كذلك مخرجات التعلم لتكون مرتبطة بما يتم تدريسه في المقرر
2	ما هو المقصود بكلمة Presenter الموجودة في أغلب المواد تحت الطرق أو الوسائل المستخدمة في التعليم و التعلم؟ إذا كان المقصود هو عضو هيئة التدريس فهو من التأكيد لا يمكن إعتباره من ضمن الوسائل المستخدمة في التعليم و التعلم

8- What has been implemented from the student's suggestions in the previous year?

No.	Suggestions
1	Make cooperation protocols with quality departments in some companies to make online sessions that explain the inspection process

9- What has not been implemented from the suggestions (give reasons)?

No.	Suggestions	Reasons
1	Opening the field for brainstorming and discussion about the topics of the curriculum	Lack of academic time

10- What has been implemented from the action plan in the previous year?

No.	Suggestions
1	Making site visits to see the practical application of the theoretical part of the curriculum.

11- Action plan for next academic year

No.	Areas of development	Description of development	Completion date	Person responsible
1	Adding some scientific reference in the electronic library of the institute.	Increase the number of textbooks that relates with the area under study	2023-2024	Institute management

Course Coordinator: Dr.Yasser Tawfik

Head of Department: Associate prof. Hend Elsayed Gadow

Date of Approval: 7/2023



Annual Course Report: Electroplating

A. Basic Information

Program Title	Chemical Engineering
Department offering the Program	Chemical Engineering Department
Department Responsible for the Course	Chemical Engineering Department
Course Code	CHE 511
Year/ Level	Level 5
Specialization	Major
Authorization data of course report	8/2023
Exam Committee Selection Rule	Commissioning of the Institute of Management
External Revision of Examination	--
Lecturers Number:	1

Teaching hours	Lectures	Tutorial	Practical
	2	2	-

B. Specialized information:

1. Statistics

Subject		Percentage
Students attending the course		100%
Students completing the course		100%
Results	Passed	100%
	Failed	0%
Grading of successful students	Excellent	68.9%
	Very Good	14.8%
	Good	13.1%
	Pass	3.2%

2. Course Teaching:

No.	Topics	Lectures	Tutorial	Practical
1	Electrochemistry	4	4	-
2	Electrochemical cells	6	6	-
3	Surface preparation	6	6	-
4	Throwing power	2	2	-
5	Electrochemical baths	4	4	-
6	Factors affecting electroplating	4	4	-
7	temperature - bath concentration	2	2	-



Annual Course Report: Electroplating

- Student Assessment:

No.	Evaluation method	Weights
1	Midterm examination	20%
2	Semester work (sheets, quizzes, presentation)	20%
3	Final term examination	60%
Total		100%

3. Facilities Required for Teaching and Learning:

No.	Facility	No.	Facility
1	Lecture classroom	4	Data show system
2	Presenter	5	Sound system
3	White board		

4- Administrative Constraints:

No.	Constraints
1	There are no constraints

5- Student Evaluation Result of the Course:

No.	Evaluation Result
1	82.61%

6- Course enhancement suggestions

No.	Suggestions
1	Increasing visual aids that help understanding the content.
2	Improve lecture notes.
3	Inclusion of updated information about the topic

7- Comments from external evaluator(s) (if exists):

No.	Comments
1	مراجعة أهداف المقرر وبالذات الهدف الأول حيث أنه لا علاقة له بمحتوى المقرر
2	ما هو المقصود بكلمة Presenter الموجودة في أغلب المواد تحت الطرق أو الوسائل المستخدمة في التعليم و التعلم؟ إذا كان المقصود هو عضو هيئة التدريس فهو من التأكيد لا يمكن إعتباره من ضمن الوسائل المستخدمة في التعليم و التعلم.

8- What has been implemented from the student's suggestions in the previous year?

No.	Suggestions
1	Opening the field for brainstorming and discussion about the topics of the curriculum.
2	Integration of more industrial applications to emphasize the topic.



Annual Course Report: Electroplating

9- What has not been implemented from the suggestions (give reasons)?

No.	Suggestions	Reasons
1	Briefing of curriculum topics	The curriculum topics are important and I don't see any abundance in the amount of information being taught

10- What has been implemented from the action plan in the previous year?

No.	Suggestions
1	Making discussion with students about the applications

11- Action plan for next academic year

No.	Areas of development	Description of development	Completion date	Person responsible
1	Increasing visual aids that help understanding the content	Increasing the explanatory videos in the teaching content	2023-2024	Assoc.prof. HEND Elsayed Gadow

Course Coordinator: Assoc.prof. HEND Elsayed Gadow

Head of Department: Assoc.prof. HEND Elsayed Gadow

Date of Approval: 8/2023



Annual Course Report: Waste-Water Treatment

A. Basic Information

Program Title	Chemical Engineering Program
Department offering the Program	Chemical Engineering Department
Department Responsible for the Course	Chemical Engineering Department
Course Code	CHE 516
Level/ Semester	Level 5
Specialization	Major
Authorization date of course report	7/2023
Exam Committee Selection Rule	Commissioning of the Institute of Management
External Revision of Examination	-
Lecturers Number:	1

Teaching hours	Lectures	Tutorial	Practical
	2	2	-

B. Specialized information:

1. Statistics

Subject		Percentage
Students attending the course		100%
Students completing the course		100%
Results	Passed	95.45%
	Failed	4.55%
Grading of successful students	Excellent	31.7%
	Very Good	13.6%
	Good	27.3%
	Pass	22.6%

2. Course Teaching:

No.	Topics	Lectures	Tutorial	Practical
1	Water chemistry	4	2	-
2	Water sampling	6	2	-
3	Water analysis	8	22	-
4	Wastewater treatment technologies	10	2	-
Total		28	28	-

- Topics taught as a percentage of the content specified: 90%
- Lecturers commitment of the course content: 97%



Annual Course Report: Waste-Water Treatment

Used Teaching and Learning Methods

No	Topics	Face-to-Face Lecture	Online Lecture	Flipped Classroom	Presentation and movies	Discussion	Problem solving	Brain storming	Projects	Site visits	Self-learning and Research	Cooperative	Discovering	Modeling	Lab
1	Water chemistry	x	x			x	x								
2	Water sampling	x	x			x	x				x				
3	Water analysis	x	x			x	x	x							
4	Wastewater treatment technologies	x	x	x		x	x				x				

- Student Assessment:

No.	Assessment Method	Weights
1	Mid Term Examination	20%
2	Semester work	20%
3	Final Term Examination	60%
Total		100%

3. Facilities Required for Teaching and Learning:

No.	Facility	No.	Facility
1	Lecture classroom	4	Data show system
2	Presenter	5	Sound system
3	White board		

4- Administrative Constraints:

Constraints
No constraints



Annual Course Report: Waste-Water Treatment

5- Student Evaluation Result of the Course:

No.	Evaluation Result
1	83.1%

6- Course enhancement suggestions

No.	Suggestions
1	Integrating work experiences with education.

7- Comments from external evaluator(s) (if exists):

No.	Comments
1	No comments

8- What has been implemented of the student's suggestions in the previous year?

No.	Suggestions
1	Improve lecture notes

9- What has not been implemented of the suggestions (give reasons)?

No.	Suggestions	Reasons
1	Opening the field for brainstorming and discussion about the topics of the curriculum.	Lack of academic time

10- What has been implemented from the action plan in the previous year?

No.	Suggestions
1	Make some scientific visits for wastewater treatment plants.

11- Action plan for next academic year

No.	Areas of development	Description of development	Completion date	Person responsible
1	Include chapter three in self-study material	Make the student up to date with the latest wastewater treatment technologies	2023-2024	Assoc.prof. Ramadan Elkateb

Course Coordinator: Assoc.prof. Ramadan Elkateb

Head of Department: Assoc.prof. Hend Elsayed Gadow

Date of Approval: 7 /2023



Annual Course Report: Selected topics in chemical engineering

A. Basic Information

Program Title	Chemical Engineering
Department offering the Program	Chemical Engineering Department
Department Responsible for the Course	Chemical Engineering Department
Course Code	CHE 526
Year/ Level	Five
Specialization	Major
Authorization data of course report	7/2023
Exam Committee Selection Rule	Commissioning of the Institute of Management
External Revision of Examination	--
Lecturers Number:	1

Teaching hours	Lectures	Tutorial	Practical
	2	2	-

B. Specialized information:

1. Statistics

Subject		Percentage
Students attending the course		100%
Students completing the course		100%
Results	Passed	90.24%
	Failed	9.76%
Grading of successful students	Excellent	31.7%
	Very Good	17.1%
	Good	24.4%
	Pass	17.1%

2. Course Teaching:

No.	Topics	Lectures	Tutorial	Practical
1	Special topics to be selected by the department to address new subjects in Chemical Engineering.	28	28	-

- Topics taught as a percentage of the content specified: 87%

- Lecturers commitment of the course content: 95%



Annual Course Report: Selected topics in chemical engineering

Used Teaching and Learning Methods

No	Topics	Face-to-Face Lecture	Online Lecture	Flipped Classroom	Presentation and movies	Discussion	Problem solving	Brain storming	Projects	Site visits	Self-learning and Research	Cooperative	Discovering	Modeling	Lab
1	Special topics to be selected by the department to address new subjects in Chemical Engineering.	x	x	x	x	x	x				x				

- Student Assessment:

No.	Evaluation method	Weights
1	Midterm examination	20%
2	Semester work (sheets, quizzes, presentation)	20%
3	Final term examination	60%
Total		100%

3. Facilities Required for Teaching and Learning:

No.	Facility	No.	Facility
1	Lecture classroom	5	Data show system
2	Presenter	6	Sound system
3	White board		
4	Lab		

4- Administrative Constraints:

Constraints
No constraints

5- Student Evaluation Result of the Course:

No.	Evaluation Result
1	60.48%



Annual Course Report: Selected topics in chemical engineering

6- Course enhancement suggestions

No.	Suggestions
1	Transplant And Assess Pedagogy Utilizing Such Technologies To Enhance Students' Learning.

7- Comments from external evaluator(s) (if exists):

No.	Comments
1	ما هو المقصود بكلمة Presenter الموجودة في أغلب المواد تحت الطرق أو الوسائل المستخدمة في التعليم و التعلم؟ إذا كان المقصود هو عضو هيئة التدريس فهو من التأكيد لا يمكن إعتباره من ضمن الوسائل المستخدمة في التعليم و التعلم.

8- What has been implemented of the student's suggestions in the previous year?

No.	Suggestions
1	Provide training on how to use a new teaching technology in their classes.

9- What has not been implemented from the suggestions (give reasons)?

No.	Suggestions	Reasons
1	Using online course material.	Needing of extra internet system and smart boards

10- What has been implemented from the action plan in the previous year?

No.	Suggestions
1	Making site visits to see the practical application of the theoretical part of the curriculum.

11- Action plan for next academic year

No.	Areas of development	Description of development	Completion date	Person responsible
1	Adding some scientific reference in the electronic library of the institute.	Increase the number of textbooks that relates with the area under study	2023-2024	Institute management

Course Coordinator: Dr.Yasser Tawfik

Head of Department: Assoc.prof. Hend Elsayed Gadow

Date of Approval: 7/2023