وزارة التعليم العالي
المعهد العالي للهندسة والتكنولوجيا
بدمياط الجديدة

قسم الهندسة الكيميائية

تقارير المقررات قسم الهندسة الكيميائية

إعتماد مجلس القسم لتقارير المقررات قسم الهندسة الكيميائية

بتاريخ 2022/7/18

إعتماد المجلس العلمي لتقارير المقررات قسم الهندسة الكيميائية

بتاريخ 2022/7/25

وزارة التعليم العالي
المعهد العالي للهندسة والتكنولوجيا
بدمياط الجديدة

2021- 2022

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 رابع

Ministry of Higher Education
The Higher Institute of Engineering
and Technology
New Damietta

وزارة التعليم العالى
المعهد العالى للهندسة والتكنولوجيا
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Annual Course Report:Reactor 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 401
Year/ Level	Level 4
Specialization	Major
Authorization data of course report	3/2022
Exam Committee Selection Rule	Commissioning of the Institute of Management
External Revision of Examination	--
Lecturers Number:	1

Teaching hours	Lectures	Tutorial	Practical
	3	2	-

B. Specialized information:

1. Statistics

Subject		Percentage
Students attending the course		100%
Students completing the course		100%
Results	**Passed**	87.5%
	Failed	12.5%
Grading of successful students	**Excellent**	7.2%
	Very Good	9%
	Good	26.8%
	Pass	44.6%

2. Course Teaching:

No.	Topics	Lectures	Tutorial	Practical
1	Fundamentals of thermodynamics and kinetics of chemical reactions	3	2	-
2	Analysis of batch, plug-flow and continuous stirred tank reactors for different types of reactions	6	4	-
3	Non ideal reactor analysis, including residence time distribution, back mixing and dispersion models	3	2	-
4	Kinetics of isothermal and non-isothermal ideal reactors.	6	4	-
5	Kinetics of heterogeneous or catalytic reactions	3	2	-
6	Design of different types of catalytic and non-catalytic reactors	6	4	-

Annual Course Report:Reactor Design

7	Mass and energy transfer limitations in heterogeneous reaction systems	6	4	-
8	Catalyst effectiveness	3	2	-
9	Reactor stability and sensitivity to operating parameters	3	2	-
10	Optimization of reactor design and Factors affecting choice of reactors	3	2	-
Total		**42**	**28**	**-**

- **Topics taught as a percentage of the content specified: 92%**
- **Lecturers commitment of the course content: 95 %**
- **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	Fundamentals of thermodynamics and kinetics of chemical reactions	x	x			x	x								
2	Analysis of batch, plug-flow and continuous stirred tank reactors for different types of reactions	x	x			x	x	X							
3	Non ideal reactor analysis, including residence time distribution, back mixing and dispersion models	x	x			x	x	X							
4	Kinetics of isothermal and non-isothermal ideal reactors.	x	x			x	x	X							
5	Kinetics of heterogeneous or catalytic reactions	x	x			x	x	X							

Annual Course Report:Reactor Design

6	Design of different types of catalytic and non-catalytic reactors	x	x			x	x	X							
7	Mass and energy transfer limitations in heterogeneous reaction systems	x	x			x	x	X							
8	Catalyst effectiveness	x	x			x	x	X							
9	Reactor stability and sensitivity to operating parameters	x	x			x	x	X							
10	Optimization of reactor design and Factors affecting choice of reactors	x	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
3	White board		

4- Administrative Constraints:

No.	Constraints
1	-

5- Student Evaluation Result of the Course:

No.	Evaluation Result
1	**78.52%**

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بدمياط الجديدة

Annual Course Report:Reactor Design

6- Course enhancement suggestions

No.	Suggestions
1	Opening the field for brainstorming and discussion about the topics of the curriculum.

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	Integrating work experiences with education.

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

No.	Suggestions	Reasons
1	Improve lecture notes.	Lack of time

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.
2	Ensuring that the students carry out the tasks of self-study and discuss with them what they have reached

11- Action plan for next academic year

No.	Areas of development	Description of development	Completion date	Person responsible
1	increases student participation and raises their level of interaction	Possessing the skill of storytelling, which is considered one of the skills that most increases student participation	2022-2023	Prof. Dr. / Taha E. Farrag

Course Coordinator: Prof. Dr. / Taha E. Farrag

Head of Department: Ass. Dr. Hend Elsayed Gadow

Date of Approval: 3/2022

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وزارة التعليم العالى
المعهد العالى للهندسة والتكنولوجيا
بدمياط الجديدة

Annual Course Report: Heat Transfer

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 402
Year/ Level	Level 4
Specialization	Major
Authorization data of course report	4/2022
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**	77.78 %
	Failed	22.22 %
Grading of successful students	**Excellent**	11.1 %
	Very Good	4.2 %
	Good	16.7 %
	Pass	45.9 %

2. Course Teaching:

No.	Topics	Lectures	Tutorial	Practical
1	Introduction to heat transfer : conduction ,convection ,thermal radiation	6	-	-
2	The heat diffusion equation :Cartesian ,cylindrical ,spherical coordiates	6	-	-
3	One dimensional St.St conduction	4	-	-
4	External ,internal flow convection	4	-	-
5	heat exchanger Practical • Conduction ,Convection ,Radiation	8	-	28

Annual Course Report: Heat Transfer

	Drop wise ,film condensation ,nucleate film boil , Heat exchanger			
Total		28	-	28

- Topics taught as a percentage of the content specified: 89%
- Lecturers commitment of the course content: 97%

- 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 to heat transfer : conduction ,convection ,thermal radiation	x	x			x					x				
2	The heat diffusion equation :Cartesian ,cylindrical ,spherical coordiates	x	x												
3	One dimensional St.St conduction	x	x			x	X								

Annual Course Report: Heat Transfer

4	External ,internal flow convection	x	x			x	X				X				
5	heat exchangers Practical • Conduction ,Convection ,Radiation Drop wise ,film condensation ,nucleate film boil , Heat exchanger	x	x			x	X	x							x

- Student evaluation:

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	**73.11%**

6- Course enhancement suggestions

Annual Course Report: Heat Transfer

No.	Suggestions
1	Ensuring that the students carry out the tasks of self-study and discuss with them what they have reached
2	Making some visits for petrochemical plants.

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

No.	Comments
1	المراجع المذكورة تحتاج للتحديث

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

No.	Suggestions
1	Provide training on how to use a new teaching technology in their classes.
2	Using online course material.

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

No.	Suggestions	Reasons
1	Conducting a training course on the use of thermodynamic theories in industry.	Lack of academic time and students' preoccupation with summer training

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

No.	Suggestions
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	Conducting a training course on the use of thermodynamic theories in industry.	Holding a training course on the Zoom program	2022-2023	Institute management

Course Coordinator: Dr. Riham Atef

Head of Department: Assoc.prof. Hend Elsayed Gadow

Date of Approval: 4/2022

Annual Course Report: Mass Transfer

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 403
Year/ Level	Level 4
Specialization	Major
Authorization data of course report	4/2022
Exam Committee Selection Rule	Commissioning of the Institute of Management
External Revision of Examination	--
Lecturers Number:	1

	Lectures	**Tutorial**	**Practical**
Teaching Hours	2hours per week for 14 weeks	2 hours per week for14 weeks	0

B. Specialized information:

1. Statistics

Subject		**Percentage**
Students attending the course		100%
Students completing the course		100%
Results	**Passed**	82.26%
	Failed	17.74%
Grading of successful students	**Excellent**	8.1%
	Very Good	22.6%
	Good	16.2%
	Pass	35.5%

2. Course Teaching:

No.	Topics	Lectures	Tutorial	Practical
1	Molecular mass transport in fluids	4	4	-
2	Transport Phenomena and the basic equation of change	4	4	-
3	Molecular mass transport in liquids and biological solutions	4	4	-
4	Mass transport phenomena in solids	2	2	-
5	Mass transfer coefficient in laminar and turbulent flow	4	4	-

Annual Course Report: Mass Transfer

6	Inter-phase mass transport	4	4	-
7	Continuous two-phase mass transport processes	6	6	-
Total		28	28	-

- Topics taught as a percentage of the content specified: 88%
- Lecturers commitment of the course content: 96%

Used Teaching and Learning Methods

No	Topics	Face to face	Online lecture	Flipped Classroom	Presentation and movies	Discussion	Problem solving	Brain storming	Projects	Site Visits	Self learning and research	Cooperative	Discovering	Modeling	Lab
1	Molecular mass transport in fluids	x	x			x					x				
2	Transport Phenomena and the basic equation of change	x	x			x	x								
3	Molecular mass transport in liquids and biological solutions	x	x			x		x							
4	Mass transport phenomena in solids	x	x			x	x								
5	Mass transfer coefficient in laminar and turbulent flow	x	x			x	X								

Annual Course Report: Mass Transfer

6	Inter-phase mass transport	x	x			x	x	x							
7	Continuous two-phase mass transport processes	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	4	Data show system
2	Presenter	5	Sound system
3	White board		

4- Administrative Constraints:

No.	Constraints
1	-

5- Student Evaluation Result of the Course:

No.	Evaluation Result
1	74.33%

6- Course enhancement suggestions

No.	Suggestions
1	Using online course material.
2	Increasing field visits

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

No.	Comments
1	Topics are short in course specs that should be modified.

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

No.	Suggestions
1	Preparing power point file for lectures by Preparing power point file for lectures
2	Using data show techniques

Annual Course Report: Mass Transfer

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

No.	Suggestions	Reasons
1	Provide field visits	Lack of academic time

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

No.	Suggestions
1	Dividing the students into groups, each of whom will create a model for designing separation unit and making a discussion with them

11- Action plan for next academic year

No.	Areas of development	Description of development	Completion date	Person responsible
1	Relate the theoretical study by the practical field	Visits to petrochemical plants.	2022-2023	Institute management

Course Coordinator: Dr. Riham Atef

Head of Department: Associate prof. Hend Elsayed Gadow

Date of Approval:4/2022

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وزارة التعليم العالىالمعهد العالى للهندسة والتكنولوجيا بدمياط الجديدة

Annual Course Report: Corrosion 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 404
Year/ Level	Level 4
Specialization	Major
Authorization date of course report	4/2022
Exam Committee Selection Rule	Commissioning of the Institute of Management
External Revision of Examination	--
Lecturers Number:	1

Teaching Hours	**Lectures**	**Tutorial**	**Practical**
	1	2	0

B. Specialized information:

1. Statistics

Subject		**Percentage**
Students attending the course		100%
Students completing the course		96.2%
Results	**Passed**	86.79%
	Failed	13.21%
Grading of successful students	**Excellent**	32.1%
	Very Good	20.7%
	Good	17%
	Pass	17%

2. Course Teaching:

No.	Topics	Lectures	Tutorial	Practical
1	Theories and principles of corrosion	1	2	-
2	Types of corrosion (Localized corrosion, pitting, crevice corrosion , cavitations, stress corrosion cracking and corrosion fatigue)	2	4	-
3	metallurgical factors	1	2	-
4	welding problems	1	2	-
5	material selection	1	2	-
6	Inspection and nondestructive testing	2	4	-
7	chemical cleaning flue gas attack	1	2	-
8	corrosion testing evaluation and simulation	2	4	-
9	corrosion prevention ,monitoring, cathode protection and anodic protection	1	2	-
10	water treatment for boilers and condensers	2	4	
Total		14	28	

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Annual Course Report: Corrosion Engineering

- **Topics taught as a percentage of the content specified: 97 %**
- **Lecturers commitment of the course content: 99 %**
- **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	Theories and principles of corrosion	x	x			x					x				
2	Types of corrosion (Localized corrosion, pitting, crevice corrosion , cavitations, stress corrosion cracking and corrosion fatigue)	x	x	x		x	x								
3	metallurgical factors	x	x	x		x									
4	welding problems	x	x	x		x		x							
5	material selection	x	x	x		x		x							
6	Inspection and nondestructive testing	x	x	x		x									
7	chemical cleaning flue gas attack	x	x	x		x									

Annual Course Report: Corrosion Engineering

8	corrosion testing evaluation and simulation	x	x	x		X	x								
9	corrosion prevention, monitoring, cathode protection and anodic protection	x	x	x		X	X								
10	water treatment for boilers and condensers	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	Computer lab		

4- Administrative Constraints:

No.	Constraints
1	There are no constraints

5- Student Evaluation Result of the Course:

No.	Evaluation Result
1	**81.58%**

6- Course enhancement suggestions

No.	Suggestions
1	Obliging the students to search for real examples of corrosion and mention the type of corrosion and discussing their results
2	Integrating work experiences with education.
3	Preparing pieces that have corroded to see the types of corrosion in reality

Annual Course Report: Corrosion Engineering

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

No.	Comments
	No comments from external evaluator about this course

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

No.	Suggestions
1	Improve lecture notes
2	Integrating work experiences with education.

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

No.	Suggestions	Reasons
1	-	-

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

No.	Suggestions
1	Adding some practical experiments on some alloys by Bringing a specimen of aluminum and steel alloy

11- Action plan for next academic year

No.	Areas of development	Description of development	Completion date	Person responsible
1	Increase some of scientific reference in the library of the institute	Add more scientific reference in the electronic library of the institute	2022-2023	Dr.Mohamed Fakeeh

Course Coordinator: Dr. Mohamed Fakeeh

Head of Department: Assoc.prof. Hend Elsayed Gadow

Date of Approval:4/2022

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Annual Course Report
Project management and control
ENG408

1. Basic Information:

Program Title	Chemical Engineering
Department offering the Program	Chemical Engineering Department
Department Responsible for the Course	Basic Science and Engineering Department
Course Code	ENG 408
Year/ Level	Level 4
Specialization	Major
Authorization data of course report	3/2022
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		**No.**	**Percentage**
Students attending the course		246	100 %
Students completing the course		242	98.37 %
Results	**Passed**	232	94.31 %
	Failed	14	5.69 %
Grading of successful students	**Excellent**	60	25.86 %
	Very Good	77	33.19 %
	Good	46	19.83 %
	Pass	49	21.121 %

2. Course Teaching:

No.	**Topics**	**Lectures**	**Tutorial**	**Practical**
1	Introduction to project management.	2	2	-
2	Project planning and scheduling.	2	2	-
3	Network based scheduling.	2	2	-
4	Critical path method.	6	6	-
5	Program evaluation& review technique (PERT)	4	4	-
6	Probability aspects of project completion time.	2	2	-
7	Project cost control.	6	6	-
8	Resource allocation	2	2	-
9	Forecasting funds requirement	2	2	-
Total		**28**	**28**	**-**

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Annual Course Report
Project management and control
ENG408

- **taught as a percentage of the content specified: 90%**
- **Lecturers commitment of the course content: 95%**
- **Used Teaching and Learning Methods**

No	Topics	Face to face	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 to project management.	x	x			X		x							
2	Project planning and scheduling.	x	x			X		x							
3	Network based scheduling.	x	x			X	x	x							
4	Critical path method.	x	x			X	x	x							
5	Program evaluation& review technique (PERT)	x	x				x	x							
6	Probability aspects of project completion time.	x	x			X		X							
7	Project cost control.	x	x			X	x	x							
8	Resource allocation	x	x			X		x							

Annual Course Report
Project management and control
ENG408

9	Forecasting funds requirement	x	x			X	x	X							

- Student Assessment:

No.	Evaluation Method	Weights
1	Semester Works (Quizzes, Sheets, Reports)	20%
2	Mid-Term Exam	20%
3	Final-Term Exam	60%
Total		**100%**

3. Facilities Required for Teaching and Learning:

Facility			
1	Lecture classroom	3	White board
2	Seminar	4	Data show system
5	Lab.		

4- Administrative Constraints:

No.	Constraints
1	-

5- Student Evaluation Result of the Course:

No.	Evaluation Result
1	**73.41 %**

6- Course enhancement suggestions

No.	Suggestions
1	**Improve lecture notes**
2	**Integrating work experiences with education.**
3	**Transplant And Assess Pedagogy Utilizing Such Technologies To Enhance Students' Learning.**

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

No.	Comments
1	**References need update**

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

No.	Suggestions
1	**Using online course material.**
2	**Provide training on how to use a new teaching technology in their classes.**

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

No.	Suggestions	Reasons
1	**Designing a complete software by applications taught**	**Lack of resources**

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

Annual Course Report
Project management and control
ENG408

No.	Areas of development	Description of development	Completion date	Person responsible
1	Add more neural networks (NNs) applications	Use neural applications in the course	2021-2022	Dr. Hamdy Abd-elatty

11- - Action plan for next academic year

No.	Areas of development	Description of development	Completion date	Person responsible
1	Increasing applied problems	Assignment and sheets	2022-2023	Dr. Hamdy Abd Elaty

Course Coordinator: Dr. Hamdy Abd-elatty

Head of Department: Assoc. Prof. Amal Bahiry

Date of Approval: 3/2022

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Annual Course Report: air pollution

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 412
Year/ Level	Level 4
Specialization	Major
Authorization data of course report	2/2022
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**	90.32%
	Failed	9.68%
Grading of successful students	**Excellent**	19.4%
	Very Good	19.4%
	Good	19.4%
	Pass	32.3%

2. Course Teaching:

No.	**Topics**	**Lectures**	**Tutorial**	**Practical**
1	Source of pollutants	4	4	-
2	measurements and equipment design for removal of air pollutants	4	4	-
3	Effects of air pollutants	4	4	-
4	Dispersion of pollutants in the atmosphere	4	4	-
5	Particulate matter and its control equipment	4	4	-
6	Atmospheric photochemical reactions	4	4	-
7	Instrumentation and emission testing equipment	4	4	-
Total		**28**	**28**	**-**

- Topics taught as a percentage of the content specified: 90 %
- Lecturers commitment of the course content: 95 %

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Annual Course Report: air pollution

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	Source of pollutants	x	x	x		X									
2	measurements and equipment design for removal of air pollutants	x	x			X	x				X				
3	Effects of air pollutants	x	x			X					X				
4	Dispersion of pollutants in the atmosphere	x	x	x		X									
5	Particulate matter and its control equipment	x	x			X					X				
6	Atmospheric photochemical reactions	x	x			X									
7	Instrumentation and emission testing equipment	x	x			X					X				

Ministry of Higher Education The Higher Institute of Engineering and Technology New Damietta

وزارة التعليم العالى
المعهد العالى للهندسة والتكنولوجيا
بدمياط الجديدة

Annual Course Report: air pollution

- 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:

Constraints
No constraints

5- Student Evaluation Result of the Course:

No.	Evaluation Result
1	**81.74%**

6- Course enhancement suggestions

No.	Suggestions
1	**Make scientific sessions with some environmental experts to make the students more aware about the latest technologies that cause air pollution**
2	**Simulate real models for any industry that causes air pollution**

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

No.	Comments
1	**نقص في تطابق الجدارات ومخرجات التعلم مع جدول تقييم الطالب و المراجع المذكوره بعضها في حاجه الى التحديث**

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

No.	Suggestions
1	**Introducing real models of industrial applications.**

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**

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وزارة التعليم العالى
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بدمياط الجديدة

Annual Course Report: air pollution

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

No.	Suggestions
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	Increasing the application and discussion aspect with students	Asking questions for discussion and asking them to search for more applications	2022-2023	Asso.prof. Hend Elsayed Gadow

Course Coordinator: Dr. Mohamed Elbendary

Head of Department: Associate prof. Hend Elsayed Gadow

Date of Approval: 2/2022

Ministry of Higher Education
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وزارة التعليم العالى
المعهد العالى للهندسة والتكنولوجيا
بدمياط الجديدة

Annual Course Report: Polymer 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 414
Year/ Level	Four
Specialization	Major
Authorization data of course report	3/2022
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**	91.18%
	Failed	8.82%
Grading of successful students	**Excellent**	23.5%
	Very Good	29.4%
	Good	20.6%
	Pass	17.6%

2. Course Teaching:

No.	Topics	Lectures	Tutorial	Practical
1	Polymer chemistry and types of polymerization reactions.	4	4	-
2	Polymerization techniques	2	2	-
3	measurement of molecular weight	2	2	-
4	Classification of polymers	2	2	-
5	plastics, elastomers	4	4	-
6	thermoplastics and thermosetting resins	2	2	-
7	Structure, mechanical and physical properties of polymers	2	2	-
8	manufacture of polymers	2	2	-

Annual Course Report: Polymer Engineering

9	Polymer processing	2	2	-
10	Extrusion	2	2	-
11	Injection and blow molding	2	2	-
12	Manufacture and properties of some commercial polymers	2	2	-
Total		28	28	-

- Topics taught as a percentage of the content specified: 87%
- Lecturers commitment of the course content: 95%

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	Polymer chemistry and types of polymerization reactions.	x	x			X					x				
2	Polymerization techniques	x	x	x		X									
3	measurement of molecular weight	x	x			X	x								
4	Classification of polymers	x	x			X					X				
5	plastics, elastomers	x	x			X									

Annual Course Report: Polymer Engineering

6	thermoplastics and thermosetting resins	x	x			x					x			
7	Structure, mechanical and physical properties of polymers	x	x			x					x			
8	manufacture of polymers	x	x			x					x			
9	Polymer processing	x	x	x		x								
10	Extrusion	x	x								x			
11	Injection and blow molding	x	x			X								
12	Manufacture and properties of some commercial polymers	x	x	x		X								

- Student Assessment:

No.	Evaluation method	Weights
1	Midterm examination	20%
2	Semester work(sheets, quizs, 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:

Annual Course Report: Polymer Engineering

No.	Evaluation Result
1	69%

6- Course enhancement suggestions

No.	Suggestions
1	Practically preparing a polymer and trying to separate it using one of the methods that have been taught
2	Using online course material.

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

No.	Comments
1	Topics are short in course specs that should be modified.

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.
2	Using online course material.

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

No.	Suggestions	Reasons
1	Make some scientific visits for petrochemical laboratories.	Inability to make cooperation protocols with companies

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

No.	Suggestions
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	Studying practically how to manufacture various types of polymer	Make some scientific visits for petrochemical laboratories.	2022-2023	Institute management

Course Coordinator: Dr. Mohamed Fakeeh

Head of Department: Assoc.prof. Hend Elsayed Gadow

Date of Approval: 3/2022

Ministry of Higher Education
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وزارة التعليم العالى
المعهد العالى للهندسة والتكنولوجيا
بدمياط الجديدة

Annual Course Report: Mass Transfer Operations

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 405
Year/ Level	4th level
Specialization	Major
Authorization data of course report	7/2022
Exam Committee Selection Rule	Commissioning of the Institute of Management
External Revision of Examination	--
Lecturers Number:	1

Teaching Hours	**Lectures**	**Tutorial**	**Practical**
	2	2	0

B. Specialized information:

1. Statistics

Subject		**Percentage**
Students attending the course		100%
Students completing the course		100%
Results	**Passed**	94.64%
	Failed	5.36%
Grading of successful students	**Excellent**	12.5%
	Very Good	9%
	Good	23.2%
	Pass	50%

2. Course Teaching:

No.	**Topics**	**Lectures**	**Tutorial**	**Practical**
1	Mass transport in fluids	2	2	-
2	Mass transport phenomena in solids			
3	Inter-phase mass transport			
4	Continuous two-phase mass transport processes	2	2	-
5	Vapor-liquid equilibrium (VLE)	2	2	-
6	binary system distillation (plate and packed columns)	6	6	-
7	Gas- liquid and liquid- liquid extraction	6	6	-
8	solid-liquid extraction	2	2	-
9	Humidification and drying	2	2	-
10	Evaporation and crystallization	2	2	-

Annual Course Report: Mass Transfer Operations

11	Membrane separation technology	4	4	-
Total		**28**	**28**	**-**

- Topics taught as a percentage of the content specified: 88%
- Lecturers commitment of the course content: 96%

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	Mass transport in fluids	x	x			x	x	x							
2	Mass transport phenomena in solids	x	x			x	x	x							
3	Inter-phase mass transport	x	x			x	x	x							
4	Continuous two-phase mass transport processes	x	x			x	x	x							
5	Vapor-liquid equilibrium (VLE)	x	x			x	x	x							
6	binary system distillation (plate and packed columns)	x	x			x	x	x							
7	Gas- liquid and liquid- liquid extraction	x	x			x	x	x							

Annual Course Report: Mass Transfer Operations

8	solid-liquid extraction	x	x			x	x	x							
9	Humidification and drying	x	x			x	x	x							
10	Evaporation and crystallization	x	x			x	x	x							
11	Membrane separation technology	x	x			x	x	x							

- Student Assessment:

No.	Assessment 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	-

5- Student Evaluation Result of the Course:

No.	Evaluation Result
1	**78.11%**

6- Course enhancement suggestions

No.	Suggestions
1	**Ensuring that the students carry out the tasks of self-study and discuss with them that they have reached**
2	**Making field visits**

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

No.	Comments
1	**No comments**

Annual Course Report: Mass Transfer Operations

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.
2	Increasing the scientific references which relates to mass transfer operations.

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

No.	Suggestions	Reasons
1	Integrating work experiences with education by providing field visits.	Time limitations

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

No.	Suggestions
1	Integrating work experiences with education by providing field visits.

11- Action plan for next academic year

No.	Areas of development	Description of development	Completion date	Person responsible
1	Improve lecture notes.	Provide more suitable book	2022-2023	Lecturer

Course Coordinator: Dr. Riham Atef

Head of Department: Associate prof. Hend Elsayed Gadow

Date of Approval: 7/2022

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وزارة التعليم العالى
المعهد العالى للهندسة والتكنولوجيا
بدمياط الجديدة

Annual Course Report: Bio organic chemistry

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 406
Year/ Level	Level 4
Specialization	Major
Authorization data of course report	2/2022
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**	90.32%
	Failed	9.68%
Grading of successful students	**Excellent**	19.4%
	Very Good	19.4%
	Good	19.4%
	Pass	32.3%

2. Course Teaching:

No.	**Topics**	**Lectures**	**Tutorial**	**Practical**
1	Principles of bio chemistry	4	4	-
2	Carbohydrates	6	6	-
3	Amino acids	4	4	-
4	Proteins	2	2	-
5	Enzymes	2	2	-
6	Fatty acids	4	4	-
7	Oils and fats	2	2	-
8	Pharmaceutical compounds	4	4	
	Total	**28**	**28**	**-**

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بدمياط الجديدة

Annual Course Report: Bio organic chemistry

- Topics taught as a percentage of the content specified: 90 %
- Lecturers commitment of the course content: 95 %

Used Teaching and Learning Methods

No	Topics	Face to face	Online lecture	Flipped Classroom	Presentation and movies	Discussion	Problem solving	Brain storming	Projects	Site Visits	Self learning and research	Cooperative	Discovering	Modeling	Lab
1	Principles of bio chemistry	x	x			X					X				
2	Carbohydrates	x	x			X									
3	Amino acids	x	x			X	X				X				
4	Proteins	x	x			X	x								
5	Enzymes	x	x			X					x				
6	Fatty acids	x	x			X	x								
7	Oils and fats	x	x			X	x								
8	Pharmaceutical compounds	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%**

Annual Course Report: Bio organic chemistry

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	-

5- Student Evaluation Result of the Course:

No.	Evaluation Result
1	81.74%

6- Course enhancement suggestions

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

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

No.	Comments
1	نقص في تطابق الجدارات ومخرجات التعلم مع جدول تقييم الطالب و المراجع المذكوره بعضها في حاجه الى التحديث

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

No.	Suggestions
1	Improve lecture notes
2	Introduce some experiments.
3	Enrich the library by more textbooks in Biochemistry.

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

No.	Suggestions	Reasons
1	Introduce some experiments	-

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

No.	Suggestions
1	Increase textbooks in field of biochemistry

11- Action plan for next academic year

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Annual Course Report: Bio organic chemistry

No.	Areas of development	Description of development	Completion date	Person responsible
1	Increasing the application and discussion aspect with students	Asking questions for discussion and asking them to search for more applications	2022-2023	Associate prof. Khaled samir

Course Coordinator: Associate prof. Khaled samir

Head of Department: Associate prof. Hend Elsayed Gadow

Date of Approval: 2/2022

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وزارة التعليم العالى
المعهد العالى للهندسة والتكنولوجيا
بدمياط الجديدة

Annual Course Report: Mechanical unit operation

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 407
Year/ Level	Level 4
Specialization	Major
Authorization date of course report	8/2022
Exam Committee Selection Rule	Commissioning of the Institute of Management
External Revision of Examination	--
Lecturers Number:	1

	Lectures	**Tutorial**	**Practical**
Teaching hours	**2**	**2**	**-**

B. Specialized information:

1. Statistics

Subject		**Percentage**
Students attending the course		100%
Students completing the course		100%
Results	**Passed**	85.71%
	Failed	14.28%
Grading of successful students	**Excellent**	8.8%
	Very Good	19.1%
	Good	20.6%
	Pass	33.9%

2. Course Teaching:

No.	**Topics**	**Lectures**	**Tutorial**	**Practical**
1	Filtration	2	2	-
2	Size reduction	2	2	-
3	Screening and Size Classification	2	2	-
4	Solid drying	4	4	-
5	Crystallization	2	2	-

Annual Course Report: Mechanical unit operation

6	Centrifugation	2	2	-
7	Sedimentation	4	4	-
8	Power consumption in gas /liquid contacting. Design principles for stirrer and model experiments for scale up.	2	2	
9	Computation methods in multistage and multicomponent systems and operations including particulate solids	8	8	-
	Total	28	28	-

- Topics taught as a percentage of the content specified: 92%
- Lecturers commitment of the course content: 96%

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	Filtration	x	x			x	x								
2	Size reduction	x	x			x					X				
3	Screening and Size Classification	x	x			x	x								
4	Solid drying	x	x			x	x				X				

Annual Course Report: Mechanical unit operation

5	Crystallization	x	x			x	x				X				
6	Centrifugation	x	x			x	x				X				
7	Sedimentation	x	x			x									
8	Power consumption in gas /liquid contacting. Design principles for stirrer and model experiments for scale up.	x	x			X									
9	Computation methods in multistage and multicomponent systems and operations including particulate solids	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	-

5- Student Evaluation Result of the Course:

No.	Evaluation Result
1	**78.95%**

Annual Course Report: Mechanical unit operation

6- Course enhancement suggestions

No.	Suggestions
2	Integration of more industrial applications to emphasize the topic.

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

No.	Comments
1	نقص في تطابق الجدارات ومخرجات التعلم مع جدول تقييم الطالب و المراجع المذكوره بعضها يحتاج الى تحديث

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	-	-

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

No.	Suggestions
1	Making a scientific visit to the industrial plant

11- Action plan for next academic year

No.	Areas of development	Description of development	Completion date	Person responsible
1	Increasing the application and discussion aspect with students	Asking questions for discussion and asking them to search for more applications	2022-2023	Prof. Dr. Taha Farag

Course Coordinator: Prof. Dr. Taha Farag

Head of Department: Assoc.prof. Hend Elsayed Gadow

Date of Approval: 8/2022

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Annual Course Report: Process Modeling and Simulation

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 408
Year/ Level	Level 4
Specialization	Major
Authorization data of course report	7/2022
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**	97.18%
	Failed	2.82%
Grading of successful students	**Excellent**	12.6%
	Very Good	15.5%
	Good	36.6%
	Pass	32.3%

2. Course Teaching:

No.	Topics	Lectures	Tutorial	Practical
1	Review of the basic principles of transport of momentum, heat, and mass with applied problems. Practical • Natural gas processing • Heat Exchanger	16	-	16
2	Numerical methods for solving more complex problems of transport phenomena and kinetics. Practical Chemical reaction	12	-	12
Total		28		28

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Annual Course Report: Process Modeling and Simulation

- **Topics taught as a percentage of the content specified: 92%**
- **Lecturers commitment of the course content: 97%**

- **Used Teaching and Learning Methods**

No	Topics	Face to face	Online lecture	Flipped Classroom	Presentation and movies	Discussion	Problem solving	Brain storming	Projects	Site Visits	Self learning and research	Cooperative	Discovering	Modeling	Lab
1	Review of the basic principles of transport of momentum, heat, and mass with applied problems. Practical • Natural gas processing • Heat Exchanger	x	x			X	x	X						x	x
2	Numerical methods for solving more complex problems of transport phenomena and kinetics. Practical Chemical reaction	x	x			x	x	X						x	x

- **Student evaluation:**

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%

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Annual Course Report: Process Modeling and Simulation

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	70.82%

6- Course enhancement suggestions

No.	Suggestions
1	**Introducing real models of industrial applications.**
2	**Increase some of scientific reference about process modelling and simulation for chemical engineering in electronic library.**

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

No.	Comments
	نقص في تطابق الجدارات ومخرجات التعلم مع جدول تقييم الطالب و المراجع المذكوره بعضها في حاجه الى التحديث

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

No.	Suggestions
1	**Using online course material.**

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

No.	Suggestions	Reasons
1	**Introducing real models of industrial applications.**	**Lack of academic time.**

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

No.	Suggestions
1	**Increasing researches and discussion aspect with students**

11- Action plan for next academic year

No.	Areas of development	Description of development	Completion date	Person responsible
1	**Using the internet in the research**	**Self- study**	**2022-2023**	**Dr. Sohier Abo Bakr**

Course Coordinator: Dr. Sohier Abo Bakr
Head of Department: Assoc.prof. Hend Elsayed Gadow
Date of Approval: 7/2022

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بدمياط الجديدة

Annual Course Report

Environmental Management

ENG401

A. Basic Information

Program Title	Chemical Engineering Program
Department offering the Program	Chemical Engineering Department
Department Responsible for the Course	Basic Science and Engineering Department
Course Code	ENG401
Level / Semester	level 4
Specialization	Major
Authorization date of course report	7/2022
Exam Committee Selection Rule	Commissioning of the Institute Management
Lecturers Number	1

Teaching Hours	**Lectures**	**Tutorial**	**Practical**
	3	-	0

B. Specialized information:

1. Statistics

Subject		**No.**	**Percentage**
Students attending the course		201	100%
Students completing the course		198	98.5%
Results	**Passed**	163	82.09%
	Failed	35	17.91%
Grading of successful students	**Excellent**	7	3.5%
	Very Good	26	13%
	Good	42	21.4%
	Pass	88	44.2%

2. Course Teaching:

No.	**Topics**	**Lectures**	**Tutorial**	**Practical**
1	The importance of studying environmental science – modern technology and its effect on the environment	12	-	-
2	quality of the environment and development elements	6	-	-
3	sources of environmental pollution and method of control (air pollution – water pollution)	12	-	-

Annual Course Report

Environmental Management

ENG401

4	Solid wastes pollution – noise) – economics of environmental pollution control – legislations for the environment protection.	12	-	-
Total		**42**	**-**	**-**

- Topics taught as a percentage of the content specified: 100 %
- Lecturers commitment of the course content: 90 %
- Coverage of exam topics to course content: 90 %

- Used Teaching and Learning Methods

No	Topics	Face to face	Online lecture	Flipped Classroom	Presentation and movies	Discussion	Problem solving	Brain storming	Projects	Site Visits	Self learning and research	Cooperative	Discovering	Modeling	Lab
1	The importance of studying environmental science – modern technology and its effect on the environment	x	x			X					x				
2	quality of the environment and development elements	x	x	X		X					x				

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Environmental Management

ENG401

3	sources of environmental pollution and method of control (air pollution – water pollution)	x	x			X		x			x				
4	Solid wastes pollution – noise) – economics of environmental pollution control – legislations for the environment protection.	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
1	Seminar
2	Lecture Classroom
3	White Board
4	Data Show system

4- Administrative Constraints:

No.	Constraints
1	-

5- Student Evaluation Result of the Course:

No.	Evaluation Result
1	**82.89%**

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Environmental Management

ENG401

6- Course enhancement suggestions

No.	Suggestions
1	Increasing student interaction and participation when implementing the course
2	Increase collaborative teaching to solve practical tasks and increase field visits

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	Increase collaborative teaching to solve practical tasks and increase field visits

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.	Areas of development	Description of development	Completion date	Person responsible
1	Increase some of scientific reference In the library of the institute	Add more scientific reference In the electronic library of the institute	2021-2022	Institute management

11- Action plan for next academic year

No.	Areas of development	Description of development	Completion date	Person responsible
1	Adding environmental impact assessment to the course	Presentation, discussion and approval by the Scientific Department Council	2022-2023	Scientific department councils

Course Coordinator: Assoc. Prof. Dr. Ramadan Elkateb
Head of Department: Assoc. Prof. Dr. Amal Bahiry
Date of Approval: 7/2022

Annual Course Report: Engineering Materials Selection

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 415
Year/ Level	Four
Specialization	Major
Authorization data of course report	7/2022
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**	97.18%
	Failed	2.82%
Grading of successful students	**Excellent**	29.6%
	Very Good	36.6%
	Good	18.3%
	Pass	12.6%

2. Course Teaching:

No.	Topics	Lectures	Tutorial	Practical
1	Introduction on the application of Engineering of materials science principles	4	4	-
2	The application of Engineering of materials science principles on the metals	4	4	-
3	The application of Engineering of materials science principles on the ceramics	4	4	-
4	The application of Engineering of materials science principles on the plastic Materials	4	4	-
5	Uses of different materials in different application	8	8	-
6	Study the corrosion, oxidation, and variation of	4	4	-

Annual Course Report: Engineering Materials Selection

	properties with temperature.			
Total		**28**	**28**	**-**

- Topics taught as a percentage of the content specified: 87%
- Lecturers commitment of the course content: 95%
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 on the application of Engineering of materials science principles	x	x	X							x				
2	The application of Engineering of materials science principles on the metals	x	x			X	X								
3	The application of Engineering of materials science principles on the ceramics	x	x			X	X								
4	The application of Engineering of materials science principles on the plastic Materials	x	x			x	x	x							
5	Uses of different materials in different application	x	x			x					x				

Annual Course Report: Engineering Materials Selection

6	Study the corrosion, oxidation, and variation of properties with temperature.	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:

No.	Constraints
1	-

5- Student Evaluation Result of the Course:

No.	Evaluation Result
1	78.57%

6- Course enhancement suggestions

No.	Suggestions
1	**Integrating work experiences with education.**
2	**Transplant and Assess Pedagogy Utilizing Such Technologies To Enhance Students' Learning.**

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

No.	Comments
1	**Topics are short in course specs that should be modified.**

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.**
2	**Using online course material.**

Annual Course Report: Engineering Materials Selection

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

No.	Suggestions	Reasons
1	**Make some scientific visits for petrochemical laboratories.**	Inability to make cooperation protocols with companies

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

No.	Suggestions
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	**Studying practically how to select the optimum materials for petrochemical industry**	**Make some scientific visits for petrochemical laboratories.**	**2022-2023**	**Institute management**

Course Coordinator: Assoc.prof. Hend Elsayed Gadow

Head of Department: Assoc.prof. Hend Elsayed Gadow

Date of Approval: 7/2022

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قسم الهندسة الكيميائية

تقارير المقررات قسم الهندسة الكيميائية

إعتماد مجلس القسم لتقارير المقررات قسم الهندسة الكيميائية

بتاريخ 2022/7/18

إعتماد المجلس العلمي لتقارير المقررات قسم الهندسة الكيميائية

بتاريخ 2022/7/25

وزارة التعليم العالي
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بدمياط الجديدة

2021- 2022

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

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مستوى خامس

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Annual Course Report: Chemical Engineering Computer applications

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	7/2022
Exam Committee Selection Rule	Commissioning of the Institute of Management
External Revision of Examination	--
Lecturers Number:	1

Teaching Hours	**Lectures**	**Tutorial**	**Practical**
	2	0	2

B. Specialized information:

1. Statistics

Subject		**Percentage**
Students attending the course		100%
Students completing the course		100%
Results	**Passed**	93.75%
	Failed	6.25%
Grading of successful students	**Excellent**	29.2%
	Very Good	33.4%
	Good	12.5%
	Pass	18.7%

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: Chemical Engineering Computer applications

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: 87 %
- Lecturers commitment of the course content: 85 %
- Used Teaching and Learning Methods

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Annual Course Report: Chemical Engineering Computer applications

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 **Practical** Application of MATLAB for some problem of chemical Engineering	x	x			X									X
2	Equations of state **Practical** Application of MATLAB for some problem of chemical Engineering	x	x				X								X
3	Vapor- liquid Equilibrium **Practical** Application of MATLAB for some problem of chemical Engineering	x	x				X								X
4	Chemical reaction Equilibrium **Practical** Application of MATLAB for some problem of chemical Engineering	x	x				X	x							X
5	Mass Balances with recycle stream **Practical** Application of MATLAB for some problem of chemical	x	x			x		X							X

Annual Course Report: Chemical Engineering Computer applications

	Engineering													
6	Chemical reactors **Practical** Application of MATLAB for some problem of chemical Engineering	x	x			X	X	X						X
7	MATLAB overview **Practical** Application of MATLAB for some problem of chemical Engineering	x	x			X	X							X

- Student Assessment:

No.	Assessment Method	Weights
1	Midterm examination	10%
2	Semester work(sheets, quizs)	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	79.1%

Annual Course Report: Chemical Engineering Computer applications

6- Course enhancement suggestions

No.	Suggestions
1	Introducing real models of industrial applications.
2	Integrating work experiences with education.

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

No.	Comments
1	No comment

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

No.	Suggestions
1	Using online course material.
2	Transplant And Assess Pedagogy Utilizing Such Technologies To Enhance Students' Learning.

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

No.	Suggestions	Reasons
1	Introducing real models of industrial applications.	Lack of academic time.

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

No.	Suggestions
1	Use more programs such as hysys program for design process units.

11- Action plan for next academic year

No.	Areas of development	Description of development	Completion date	Person responsible
1	Increasing the applications and discussion aspect with students	Asking questions for discussion and asking them to search for more computer applications in chemical engineering	2022-2023	Prof. Dr. / Taha E. Farrag

Course Coordinator: Prof. Dr. Taha Ibrahim Farrag
Head of Department: Associate prof. Hend Elsayed Gadow
Date of Approval:7/2022

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Annual Course Report: Petrochemicals 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	3/2022
Exam Committee Selection Rule	Commissioning of the Institute of Management
External Revision of Examination	--
Lecturers Number:	1

Teaching Hours	**Lectures**	**Tutorial**	**Practical**
	2	2	0

B. Specialized information:

1. Statistics

Subject		**Percentage**
Students attending the course		100%
Students completing the course		100%
Results	**Passed**	85.71%
	Failed	14.29%
Grading of successful students	**Excellent**	32.4%
	Very Good	14.2%
	Good	21.4%
	Pass	17.9%

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: 80 %

- Lecturers commitment of the course content: 90 %

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Annual Course Report: Petrochemicals 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
3	White board		

Annual Course Report: Petrochemicals Engineering

4- Administrative Constraints:

Constraints
No constraints

5- Student Evaluation Result of the Course:

No.	Evaluation Result
1	81.18%

6- Course enhancement suggestions

No.	Suggestions
1	Improve self-study skills
2	Manufacture of some petrochemical products in the laboratory

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

No.	Comments
1	Topics are short in course specs that should be modified

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

No.	Suggestions
1	Make some scientific events to be up to date with the modern technology.

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

No.	Suggestions	Reasons
1	Make online sessions with some instructors who specialized in petrochemical industry.	Inability to make cooperation protocols with companies

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

No.	Suggestions
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	Studying practically how to treat crude oil and natural gas and how they can be used in polymer processing.	Make some scientific visits for petrochemical plants.	2022-2023	Institute management

Course Coordinator: Dr. / Sohier Abo Bakr

Head of Department: Assoc.prof. Hend Elsayed Gadow

Date of Approval: 3/2022

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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	7/2022
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		91.3%
Results	**Passed**	84.78%
	Failed	15.22%
Grading of successful students	**Excellent**	17.3%
	Very Good	19.6%
	Good	26.1%
	Pass	13%

2. Course Teaching:

No.	Topics	Lectures	Tutorial	Practical
1	Introduction of the main basics and concepts of chemical industries Practical 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 • 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 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 Visits to factories that concern with polymerization process	6	-	6
5	Flow charts of some chemical industries Practical 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 Discussion some problems on some chemical industries and solving	4	-	4
Total		28		28

- Topics taught as a percentage of the content specified: 90%
- Lecturers commitment of the course content: 95%

Used Teaching and Learning Methods

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Annual Course Report: Industrial Technologies in Chemical Engineering

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 of the main basics and concepts of chemical industries Practical • Introduction on laboratory apparatus for some creation of some organic compounds	**x**	**x**			**X**					**X**				**X**
2	Industries on chemical creation of some aromatic compounds involving nitration and sulphonation. Practical • Synthesis of nitronaphthalene • Sulphonation processes of some aromatic compounds	x	x			X					X				X
3	Industries on chemical creation of some aromatic compounds involving halogenation and oxidation.	x	x	X		X									X

Annual Course Report: Industrial Technologies in Chemical Engineering

	Practical • Videos showing some industries on halogenated and some organic 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	x	x			X					X				X

Annual Course Report: Industrial Technologies in Chemical Engineering

	industries and solving														

- 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	70.43%

6- Course enhancement suggestions

No.	Suggestions
1	Synesis of some products in laboratory scale

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

Annual Course Report: Industrial Technologies in Chemical Engineering

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	Improve lecture notes
2	Make visits to industrial plants.

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

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

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

No.	Suggestions
1	Visiting of some plants.

11- Action plan for next academic year

No.	Areas of development	Description of development	Completion date	Person responsible
1	Convert laboratory scale to small pilot plant	pilot plant	2022-2023	Institute management

Course Coordinator: Dr. Yasser Tawfiq

Head of Department: Associate prof. Hend Gadow

Date of Approval:7/2022

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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	3/2022
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**	**0%**
	Very Good	**28.6%**
	Good	**14.3%**
	Pass	**57.2%**

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	-
Total		**28**	**28**	**-**

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Annual Course Report: Electroplating

- Topics taught as a percentage of the content specified: 92%
- Lecturers commitment of the course content: 96%

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	Electrochemistry	x	x	x		x	x								
2	Electrochemical cells	x	x			x	x	x							
3	Surface preparation	x	x			x	x				x				
4	Throwing power	x	x	x		x									
5	Electrochemical baths	x	x			x	x								
6	Factors affecting electroplating	x	x	x							x				
7	temperature - bath concentration	x	x			x	x								

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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	**73.46%**

6- Course enhancement suggestions

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

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

No.	Comments
1	**نقص في تطابق الجدارات و مخرجات التعلم مع جدول تقييم الطالب**

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

No.	Suggestions
1	**Improve lecture notes**
٢	**Integrating work experiences with education.**

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Annual Course Report: Electroplating

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

No.	Suggestions	Reasons
1	-	-

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

No.	Suggestions
1	Adding some scientific reference in the electronic library of the institute.
2	Using a video presentation system that is related to the topic to increase the clarity of the idea.

11- Action plan for next academic year

No.	Areas of development	Description of development	Completion date	Person responsible
1	Increasing the application and discussion aspect with students	Asking questions for discussion and asking them to search for more applications	2022-2023	Dr. / Sohier Abo Bakr

Course Coordinator: Dr. / Sohier Abo Bakr

Head of Department: Assoc.prof. Hend Elsayed Gadow

Date of Approval: 3/2022

Ministry of Higher Education
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وزارة التعليم العالى
المعهد العالى للهندسة والتكنولوجيا
بدمياط الجديدة

Annual Course Report: Ceramics

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 512
Level/ Semester	5thLevel
Specialization	Major
Authorization date of course report	3/2022
Exam Committee Selection Rule	Commissioning of the Institute of Management
External Revision of Examination	-
Lecturers Number:	1

Teaching Hours	**Lectures**	**Tutorial**	**Practical**
	2 hours / week	2hours/ week	0

B. Specialized information:

1. Statistics

Subject		**Percentage**
Students attending the course		100%
Students completing the course		100%
Results	**Passed**	96.97%
	Failed	3.03%
Grading of successful students	**Excellent**	48.6%
	Very Good	27.3%
	Good	15.2%
	Pass	6%

2. Course Teaching:

No.	**Topics**	**Lectures**	**Tutorial**	**Practical**
1	Definition of ceramics and its history.	4	4	-
2	Classification of ceramics according to ASTM and it's according to its properties.	6	6	-
3	Methods of processing of nano ceramics and its characterization	8	8	-
4	Stander test method of ceramics.	6	6	-
5	Ceramic hazard and advanced applications	4	4	-
Total		**28**	**28**	**-**

- Topics taught as a percentage of the content specified: 88%
- Lecturers commitment of the course content: 96%
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	Definition of ceramics and its history.	x	x			x									
2	Classification of ceramics according to ASTM and it's according to its properties.	x	x			x									
3	Methods of processing of nano ceramics and its characterization	x	x	x		x					x				
4	Stander test method of ceramics.	x	x			x					x				
5	Ceramic hazard and advanced applications	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**

5- Student Evaluation Result of the Course:

No.	Evaluation Result
1	81%

6- Course enhancement suggestions

No.	Suggestions
1	Encourage the students to draw different flowsheets for the same ceramic industry

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

No.	Comments
1	Use of standardized teaching and learning model.
2	There's no practical description.

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

No.	Suggestions
1	Make scientific visits to some European universities to see how ceramics can be prepared in virtual laboratories

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

No.	Suggestions	Reasons
1	**Make some scientific visits for petrochemical laboratories.**	Inability to make cooperation protocols with companies

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

No.	Suggestions
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	**Make chapter two a self-study material instead of chapter one**	**Make the student more aware about latest ceramic applications**	**2022-2023**	**Dr. SamehAbd El Hamid**

Course Coordinator: Dr. SamehAbd El Hamid

Head of Department: Assoc.prof. Hend Elsayed Gadow

Date of Approval: 3 /2022

Ministry of Higher Education
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وزارة التعليم العالى
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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	3/2022
Exam Committee Selection Rule	Commissioning of the Institute of Management
External Revision of Examination	-
Lecturers Number:	1

Teaching Hours	**Lectures**	**Tutorial**	**Practical**
	2 hours / week	2hours/ week	0

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**	30%
	Very Good	30%
	Good	20%
	Pass	20%

2. Course Teaching:

No.	**Topics**	**Lectures**	**Tutorial**	**Practical**
1	Water chemistry	4	2	-
2	Water sampling	6	2	-
3	Water analysis	8	24	-
4	Wastewater treatment technologies	10		-
	Total	**28**	**28**	**-**

- Topics taught as a percentage of the content specified: 88%
- Lecturers commitment of the course content: 96%

Used Teaching and Learning Methods

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Annual Course Report: Waste-Water Treatment

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
-

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Annual Course Report: Waste-Water Treatment

5- Student Evaluation Result of the Course:

No.	Evaluation Result
1	72%

6- Course enhancement suggestions

No.	Suggestions
1	Improve lecture notes
2	Opening the field for brainstorming and discussion about the topics of the curriculum.

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	Improve practical learning tasks

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

No.	Suggestions	Reasons
2	Make some scientific visits for wastewater treatment plants.	Inability to make cooperation protocols with companies

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

No.	Suggestions
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	Studying practically how to treat wastewater using latest technologies.	Make some scientific visits for wastewater treatment plants.	2022-2023	Institute management

Course Coordinator: Assoc.prof. **Ramadan Elkateb**

Head of Department: Assoc.prof. Hend Elsayed Gadow

Date of Approval: 3 /2022

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وزارة التعليم العالى
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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	3/2022
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**	93.75%
	Failed	6.25%
Grading of successful students	**Excellent**	59.5%
	Very Good	12.4%
	Good	9.4%
	Pass	12.5%

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 lecturers	4	4	-
Total		**28**	**28**	

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Annual Course Report: Industrial safety

- **Topics taught as a percentage of the content specified: 92 %**
- **Lecturers commitment of the course content: 95 %**
- **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				

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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	**86.89%**

6- Course enhancement suggestions

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

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

No.	Comments
1	-

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

No.	Suggestions
1	**Improve lecture notes**

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

No.	Suggestions	Reasons
	Hosting people specialized in external work in factories, providing real examples	**These people are busy at work and it is difficult to coordinate a suitable appointment**

Annual Course Report: Industrial safety

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	Students learn to produce and evaluate in a form directed to an audience	Students learn to produce and evaluate in a form directed to an audience: writing an article, making a poster, video, or presentation	2022-2023	Associate prof. Hend Elsayed Gadow

Course Coordinator: Associate prof. Hend Elsayed Gadow

Head of Department: Associate prof. Hend Elsayed Gadow

Date of Approval:3/2022

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وزارة التعليم العالى
المعهد العالى للهندسة والتكنولوجيا
بدمياط الجديدة

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	8/2022
Exam Committee Selection Rule	Commissioning of the Institute of Management
External Revision of Examination	--
Lecturers Number:	1

Teaching Hours	**Lectures**	**Tutorial**	**Practical**
	2	2	0

B. Specialized information:

1. Statistics

Subject		**Percentage**
Students attending the course		100%
Students completing the course		100%
Results	**Passed**	88.64%
	Failed	11.36%
Grading of successful students	**Excellent**	15.9%
	Very Good	22.8 %
	Good	22.7 %
	Pass	27.3 %

2. Course Teaching:

No.	**Topics**	**Lectures**	**Tutorial**	**Practical**
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: 92 %
- Lecturers commitment of the course content: 90 %

- 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			**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, quizs, 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	**72.37%**

6- Course enhancement suggestions

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**

Annual Course Report: Plant Design

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

No.	Comments
1	No comments from the external evaluator about this course

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

No.	Suggestions
1	Improve lecture notes
2	Provide field visits

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

No.	Suggestions	Reasons
1	Reducing the academic content	The course content is important and proportionate to the time of the semester

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

1	Providing field visits

11- Action plan for next academic year

No.	Areas of development	Description of development	Completion date	Person responsible
1	increases student participation and raises their level of interaction	Possessing the skill of storytelling, which is considered one of the skills that most increases student participation	2022-2023	Dr. Riham Atef

Course Coordinator: Dr. Riham Atef

Head of Department: Assoc.prof. Hend Elsayed Gadow

Date of Approval: 8/2022

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وزارة التعليم العالى
المعهد العالى للهندسة والتكنولوجيا
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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	7/2022
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%**
	Failed	**10%**
Grading of successful students	**Excellent**	**36.7%**
	Very Good	**13.3%**
	Good	**6.6%**
	Pass	**33.3%**

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

6	Catalytic Operations (Processes and calculations) - (Fluid Catalytic Cracking, Hydrocracking, Hydrotreating, Catalytic Reforming, Isomerization, Alkylation, Catalytic Dewaxing)	4	4	-
7	Chemical Treatment of Oil Products	2	2	-
8	Lubricating Oils (Specifications, Production Process, Calculations)	2	2	-
9	Solvent Refining (Solvent Deasphalting, Solvent Extraction, Solvent Dewaxing, Wax Deoiling)	2	2	-
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)	4	4	
11	Safety and Environmental Aspects in Refining (Air Quality, Sulfur Recovery, Wastes in Refinery Units, Fugitive Emissions)	2	2	
Total		**28**	**28**	**-**

- Topics taught as a percentage of the content specified: 92%
- Lecturers commitment of the course content: 96%

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Annual Course Report: Petroleum refining 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	Classification of Crude Oils, Composition of Crude Oils	x	x			x									
2	Physical and Chemical Properties of Crude oil and Oil Products	x	x			x	x								
3	Evaluation of Crude Oil	x	x			x	x								
4	Crude Oil Pretreatment, Fractionation of Crude Oil (Atmospheric Vacuum Distillation, Light End Fractionation, Process Description)	x	x			x	x								
5	Thermal Cracking and Coking Processes	x	x			x									
6	Catalytic Operations (Processes and calculations) - (Fluid Catalytic Cracking, Hydrocracking, Hydrotreating, Catalytic Reforming, Isomerization, Alkylation, Catalytic Dewaxing)	x	x			x					x				

Annual Course Report: Petroleum refining engineering

7	Chemical Treatment of Oil Products	x	x	x	x										
8	Lubricating Oils (Specifications, Production Process, Calculations)	x	x			x									
9	Solvent Refining (Solvent Deasphalting, Solvent Extraction, Solvent Dewaxing, Wax Deoiling)	x	x			x									
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%**

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Annual Course Report: Petroleum refining engineering

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	-

5- Student Evaluation Result of the Course:

No.	Evaluation Result
1	**70.28%**

6- Course enhancement suggestions

No.	Suggestions
1	**Opening the field for brainstorming and discussion about the topics of the curriculum.**
2	**Integrating work experiences with education.**
3	**Transplant and assess pedagogy utilizing such technologies to enhance students' learning.**

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

No.	Comments
1	**لا يوجد**

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

No.	Suggestions
1	**Introducing real models of industrial applications.**

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	**Adding some scientific reference in the electronic library of the institute.**

Annual Course Report: Petroleum refining engineering

11- Action plan for next academic year

No.	Areas of development	Description of development	Completion date	Person responsible
1	Increasing the application and discussion aspect with students	Asking questions for discussion and asking them to search for more applications	2022-2023	Institute management

Course Coordinator: Dr. / Sohier Abo Bakr

Head of Department: Assoc.prof. Hend Elsayed Gadow

Date of Approval: 7/2022

Ministry of Higher Education The Higher Institute of Engineering and Technology New Damietta

وزارة التعليم العالى
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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	7/2022
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		98.1%
Results	**Passed**	90.57%
	Failed	9.43%
Grading of successful students	**Excellent**	58.5%
	Very Good	13.2%
	Good	15.1%
	Pass	3.8%

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	-
5	Standardization of materials	6	6	-

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	and their applications according to standard			
6	Standardization of tools , pipe lines and their applications according to standard	2	2	-
7	Standardization of instruments and reactors and their applications according to standard	2	2	-
8	Methods of quality control	4	4	-
9	Reliability on product quality	2	2	-
Total		**28**	**28**	-

- Topics taught as a percentage of the content specified: 91 %
- Lecturers commitment of the course content: 93 %

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	The meaning of standardization and its methods	x	x			x									
2	Define of STM, CAS, ISO, GMP, quality control and quality assurance.	x	x	X		x					x				
3	Standardization of gases and their applications according to standard	x	x			x									

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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

5- Student Evaluation Result of the Course:

No.	Evaluation Result
1	**77.18%**

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6- Course enhancement suggestions

No.	Suggestions
1	Make cooperation protocols with quality departments in some companies to make online sessions that explain the inspection process
2	Opening the field for brainstorming and discussion about the topics of the curriculum

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

No.	Comments
1	نقص في تطابق الجدارات ومخرجات التعلم مع جدول تقييم الطالب و صعوبه قابليه مخرجات التعلم للقياس

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

No.	Suggestions
1	Introducing real models of industrial applications.

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	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	Making site visits	Making site visits to see the practical application of the theoretical part of the curriculum	2022-2023	Institute management

Course Coordinator: Dr.Sameh Abdelhameed

Head of Department: Associate prof. Hend Elsayed Gadow

Date of Approval: 7/2022

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بدمياط الجديدة

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	7/2022
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**	88.89%
	Failed	11.11%
Grading of successful students	**Excellent**	18.5%
	Very Good	29.6%
	Good	33.3%
	Pass	7.4%

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: 89%
- Lecturers commitment of the course content: 92%
Used Teaching and Learning Methods

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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, quizs, 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	**72.53%**

6- Course enhancement suggestions

No.	Suggestions
1	**Provide training on how to use a new teaching technology in their classes.**
2	**Using online course material.**

Annual Course Report: Selected topics in chemical engineering

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

No.	Comments
1	Topics are short in course specs that should be modified.

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.
2	Using online course material.

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

No.	Suggestions	Reasons
1	Make some scientific visits for petrochemical laboratories.	Inability to make cooperation protocols with companies

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

No.	Suggestions
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	Studying practically how to utilize nanotechnology in petrochemical industry	Make some scientific visits for petrochemical laboratories.	2022-2023	Institute management

Course Coordinator: Assoc.prof. Hend Elsayed Gadow

Head of Department: Assoc.prof. Hend Elsayed Gadow

Date of Approval: 7/2022