



مواصفات مقرر: ميكانيكا الموائع

Course Specification of: Fluid Mechanics

| المعلومات العامة عن المقرر | | | | | | |
|----------------------------|--|---|-------------------|----------------------------------|-------------------|-------------------|
| 1. | اسم المقرر Course Title | Fluid Mechanics ميكانيكا الموائع | | | | |
| 2. | رمز المقرر ورقمه Course Code and Number | PNGE 224 | | | | |
| 3. | الساعات المعتمدة للمقرر Credit Hours | الساعات المعتمدة | | | الإجمالي Total | |
| | | محاضرات Lecture | عملي Practical | سمنار/تمارين Seminar/Tutorial | | تدريب Training |
| | | 2 | 1 | - | | - |
| 4. | المستوى والفصل الدراسي Study Level and Semester | 2 nd level, 1 st semester | | | | |
| 5. | المتطلبات السابقة للمقرر (إن وجدت) Pre-requisites (if any) | PNR113, PNR 114 | | | | |
| 6. | المتطلبات المصاحبة (إن وجدت) Co-requisites (if any) | - | | | | |
| 7. | البرنامج الذي يدرس له المقرر Program (s) in which the course is offered | BSC Petroleum & Natural Gas Engineering | | | | |
| 8. | لغة تدريس المقرر Language of teaching the course | English/Arabic | | | | |
| 9. | نظام الدراسة Study System | Semesters | | | | |
| 10. | مكان تدريس المقرر Location of teaching the course | Faculty Buildings | | | | |
| 11. | اسم معد (و) مواصفات المقرر Prepared by | Dr. Sami Al- Hadad | | | | |
| 12. | تاريخ اعتماد مجلس الجامعة Date of Approval | 2020 | | | | |

| وصف المقرر | |
|--|---------------------|
| وصف المقرر بالإنجليزية | وصف المقرر بالعربية |
| Fluid Mechanics is a course concerned with studying the different types of fluids and their properties. Also it is concerned with studying fluids at rest (statics) and in motion (dynamics). Learning and understanding the principles of this course for oil & gas engineering students is essential in analysis and design of fluid systems. This course aims to introduce the fundamentals of fluid mechanics and its applications. The main objectives of this course | |

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| | |
|--|--|
| <p>are students to learn:</p> <ul style="list-style-type: none"> • Fluid properties • Types of flow • Fluid pressure measurement • Energy heads in fluids • Forces affecting on submerged surfaces • Bernoulli's theorem • Bouncy and floatation • Momentum principle in moving fluids | |
|--|--|

| Course Intended Learning Outcomes (CILOs) مخرجات تعلم المقرر | | |
|---|---|--|
| After completing the course, the student will be able to: | | بعد الانتهاء من دراسة المقرر سوف يكون الطالب قادرا على أن: |
| a1. | Know the fundamentals of mathematics for modeling and analysis of fluid mechanic problems related to oil & gas engineering. | - a1 |
| a2. | Understand the derivation of fluid mechanic concepts and theories by relating them to the real life engineering cases within oil & gas engineering | - a2 |
| a3. | Demonstrate understanding of fluid physical properties. | |
| b1. | Apply the various fluid mechanics theories and demonstrate creative abilities in calculating the hydrostatic forces on submerged surfaces, study bouncy and floatation, and calculate the kinematic energy of fluids. | -b1 |
| c1. | Ability to write technical reports/researches in relevance to fluid mechanics. | - c1 |
| c2. | carry out presentations on the studied engineering projects using the modern techniques and facilities. | - c2 |
| d1. | Participate in team-works in a harmonized manner for the solution of the targeted problems in fluid mechanic applications. | - d1 |
| d2. | Communicate effectively with his fellow engineers, and to improve continuously his scientific and practical level in fluid mechanic field. | - d2 |

| مواءمة مخرجات تعلم المقرر مع مخرجات التعلم للبرنامج: | |
|--|------------------------------------|
| Alignment of CILOs (Course Intended Learning Outcomes) to PILOs (Program Intended Learning Outcomes) | |
| مخرجات التعلم المقصودة من المقرر | مخرجات التعلم المقصودة من البرنامج |

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| (Course Intended Learning Outcomes) | | (Program Intended Learning Outcomes) (تكتب جميع مخرجات البرنامج كما هي رمزا ونصا) | |
|-------------------------------------|---|--|--|
| a1 | Know the fundamentals of mathematics for modeling and analysis of fluid mechanic problems related to oil & gas engineering. | A1 | |
| a2 | Understand the derivation of fluid mechanic concepts and theories by relating them to the real life engineering cases within oil & gas engineering | A2 | |
| a3 | Demonstrate understanding of fluid physical properties. | A2 | |
| b1 | Apply the various fluid mechanics theories and demonstrate creative abilities in calculating the hydrostatic forces on submerged surfaces, study buoyancy and floatation, and calculate the kinematic energy of fluids. | B1 | |
| c1 | Ability to write technical reports/researches in relevance to fluid mechanics. | D3 | |
| c2 | carry out presentations on the studied engineering projects using the modern techniques and facilities. | C1 | |
| d1 | Participate in team-works in a harmonized manner for the solution of the targeted problems in fluid mechanic applications. | D1 | |
| d2 | Communicate effectively with his fellow engineers, and to improve continuously his scientific and practical level in fluid mechanic field. | D2 | |

| مواءمة مخرجات التعلم باستراتيجيات التعليم والتعلم والتقييم Alignment of CILOs to Teaching and Assessment Strategies | | |
|--|--|--|
| أولاً: مواءمة مخرجات تعلم المقرر (المعارف والفهم) باستراتيجية التعليم والتعلم والتقييم: First: Alignment of Knowledge and Understanding CILOs | | |
| مخرجات المقرر / المعرفة والفهم Knowledge and Understanding CILOs | استراتيجية التعليم والتعلم Teaching Strategies | استراتيجية التقييم Assessment Strategies |
| a1 - Know the fundamentals of mathematics for modeling and analysis of fluid mechanic problems related to oil & gas engineering. | Lectures Discussion Tutorial – problem solving | Written Assignment Written Exam Quizzes Participation |
| a2 - Understand the derivation of fluid mechanic concepts and theories by relating them to the real life engineering cases within oil & gas engineering | | |
| a3 - Demonstrate understanding of fluid physical properties. | | |

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ثانياً: موازنة مخرجات تعلم المقرر (المهارات الذهنية) باستراتيجية التدريس والتقييم:

Second: Alignment of Intellectual Skills CILOs

| مخرجات المقرر / المهارات الذهنية Intellectual Skills CILOs | استراتيجية التعليم والتعلم Teaching Strategies | استراتيجية التقييم Assessment Strategies |
|---|---|--|
| b1 - Apply the various fluid mechanics theories and demonstrate creative abilities in calculating the hydrostatic forces on submerged surfaces, study buoyancy and floatation, and calculate the kinematic energy of fluids. | Lectures Discussion Problem solving | Written Assignment Written Exam Quizzes Participation |

ثالثاً: موازنة مخرجات تعلم المقرر (المهارات المهنية والعملية) باستراتيجية التدريس والتقييم:

Third: Alignment of Professional and Practical Skills CILOs

| مخرجات المقرر / المهارات المهنية والعملية Professional and Practical Skills CILOs | استراتيجية التعليم والتعلم Teaching Strategies | استراتيجية التقييم Assessment Strategies |
|--|---|---|
| c1- Ability to write technical reports/researches in relevance to fluid mechanics. | Lectures Discussion Project | Written Exam Participation Project evaluation |
| c2- carry out presentations on the studied engineering projects using the modern techniques and facilities. | | |

رابعاً: موازنة مخرجات تعلم المقرر (المهارات العامة) باستراتيجية التدريس والتقييم:

Fourth: Alignment of Transferable (General) Skills CILOs

| مخرجات المقرر Transferable (General) Skills CILOs | استراتيجية التعليم والتعلم Teaching Strategies | استراتيجية التقييم Assessment Strategies |
|---|---|---|
| d1- Participate in team-works in a harmonized manner for the solution of the targeted problems in fluid mechanic applications. | Lectures Discussion Project | Participation Project evaluation |
| d2- Communicate effectively with his fellow engineers, and to improve continuously his scientific and practical level in fluid mechanic field. | | |

Course Content:

A – Theoretical Aspect:

| Order | Units/Topics List | Learning Outcomes | Sub Topics List | Number of | contact hours |
|-------|-------------------|-------------------|-----------------|-----------|---------------|
|-------|-------------------|-------------------|-----------------|-----------|---------------|

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| | | | | Weeks | |
|--------------|--|-------------------|--|-----------|-----------|
| 1 | Unit 1: Fluid Properties | a1, a2, a3, c1 | - Mass density - Weight density - Specific volume - Specific gravity - Viscosity | 1 | 2 |
| 2 | | | - Surface tension - Capillary - Bulk modulus - Vapor pressure | 1 | 2 |
| 3 | Unit 2: Pressure measurements | a1, a2, a3, c1 | - Hydrostatic law - Absolute pressure - Vacuum pressure | 1 | 2 |
| 4 | | | - Manometers: Piezometer U-shaped manometer | 1 | 2 |
| 5 | Unit 3: Hydrostatic forces on planes | a1, a2, a3, c1 | - Hydrostatic forces on horizontal plane - Hydrostatic forces on vertical plane | 1 | 2 |
| 6 | | | - Hydrostatic forces on inclined plane | 1 | 2 |
| 7 | | | - Lock gates | 1 | 2 |
| 8 | Bouncy and Flotation | a1, a2, a3, c1 | - Center of Bouncy - States of bouncy bodies equilibrium | 1 | 2 |
| 9 | Unit 4: Fluid Kinematics | a1, a2, a3, c1 | - Classification of fluids flow - Fluids flow-line classification | 1 | 2 |
| 10 | | | - Flow velocity and acceleration - Discharge - Continuity equation | 1 | 2 |
| 11 | | | - Potential velocity - Flow function | 1 | 2 |
| 12 | Unit 5: Fluid dynamics | a1, a2, a3, c1 | - Types of heads and energy of fluids in flow | 1 | 2 |
| 13 | | | - Bernoulli's equation | 1 | 2 |
| 14 | | | - Flow in pipes connected into pumps. | 1 | 2 |
| Total | | | | 14 | 28 |



| الموضوعات العملية (إن وجدت) Practical Aspect (if any) | | | | |
|---|--|---------------------------------|----------------------------------|-----------------------------------|
| الرقم Order | التجارب العملية/ التمارين / تدريبات Practical / Exercises/ Tutorials topics | عدد الأسابيع Number of Weeks | الساعات الفعلية Contact Hours | رموز مخرجات التعلم Course ILOs |
| 1 | Density Experiment | 2 | 4 | a1, a2, a3, c1, d1 |
| 2 | Viscosity Experiment | 2 | 4 | a1, a2, a3, c1, d1 |
| 3 | Hydrostatic Pressure Experiment | 2 | 4 | a1, a2, a3, c1, d1 |
| 4 | Bernoulli Equation Experiment | 2 | 4 | a1, a2, a3, c1, d1 |
| اجمالي الأسابيع والساعات الفعلية Number of Weeks /and Contact Hours Per Semester | | 8 | 16 | |

| استراتيجيات التعليم والتعلم Teaching Strategies | |
|---|--|
| <ul style="list-style-type: none"> ▪ Lectures ▪ Discussion ▪ Problems Solving ▪ Project | |

| الأنشطة والتكليفات Tasks and Assignments | | | | | |
|--|---------------------------------------|-------------------------------|-------------------------|---------------------------|----------------------------------|
| م No | التكليف/ الواجب Assignments/ Tasks | نوع التكليف (فردى/ تعاوني) | الدرجة المستحقة Mark | أسبوع التنفيذ Week Due | مخرجات التعلم CILOs (symbols) |
| 1 | Assignment 1 – Unit 1 | | 2 | W 3 | a1, a2, a3, c1 |
| 2 | Assignment 2 – Unit 2 | | 2 | W 5 | a1, a2, a3, c1 |
| 3 | Assignment 3 – Unit 3 | | 2 | W 9 | a1, a2, a3, c1 |
| 4 | Assignment 4 – Unit 4 | | 2 | W 13 | a1, a2, a3, c1 |
| 5 | Assignment 5 – Unit 5 | | 2 | W 15 | a1, a2, a3, c1 |
| إجمالي الدرجة Total Score | | | 10 | | |

| تقييم التعلم Learning Assessment | | | | | |
|----------------------------------|-----------------------------------|---------------------------|----------------|---|----------------------------------|
| الرقم No. | أنشطة التقييم Assessment Tasks | أسبوع التقييم Week due | الدرجة Mark | نسبة الدرجة إلى الدرجة النهائية Proportion of Final Assessment | مخرجات التعلم CILOs (symbols) |
| 1 | Assignment | Quarter | 10 | 6.6% | a1, a2, a3, c1 |
| 2 | Participation | Weekly | 5 | 3.4% | a1, a2, a3, |
| 3 | Quizzes | End of a topic | 10 | 6.6% | a1, a2, a3, c1d1 |
| 4 | Mid-Term (theoretical) | Week 8 | 15 | 10% | a1, a2, a3, c1, |
| 5 | Mid-Term (practical) | Week 6 | 15 | 10% | a1, a2, a3, c1d1 |



| | | | | | |
|----------------|--------------------------|---------|-----|-------|-----|
| 6 | Final Exam (practical) | Week 12 | 25 | 16.7% | all |
| 7 | Final Exam (theoretical) | Week 16 | 70 | 46.7% | all |
| Total الإجمالي | | | 150 | 100% | |

| Learning Resources مصادر التعلم | |
|---|--|
| توثيق المراجع حسب نظام APA (اسم المؤلف، سنة النشر، اسم الكتاب، دار النشر، بلد النشر). | |
| Required Textbook(s) المراجع الرئيسية (لا تزيد عن مرجعين) | |
| -المرجع الكامل في ميكانيكا الموائع (الجزء الأول) 2010 للمؤلف: شريف فتحي الشافعي – دار الكتب العلمية للنشر والتوزيع – القاهرة - مصر 2—Buddhi N. Hewakandamby (2012) – “A First Course in Fluid Mechanics for Engineers” bookboon.com | |
| Essential References المراجع المساندة | |
| Handouts | |
| Electronic Materials and Web Sites etc. المصادر الإلكترونية ومواقع الإنترنت | |
| none | |

| Course Policies: | |
|------------------|---|
| 1 | Class Attendance: - Students are expected to attend classes regularly and promptly. - The attendance should not be less than 80%. - If the student has been absent, he is responsible for finding out any missed material by consulting other students or going to the professor's office hours. |
| 2 | Tardy: - Attendance and arriving on time for the class are necessary. If the student is late, he will be prevented from class. |
| 3 | Exam Attendance/Punctuality: - According to the rules the student gets absent in the exam of the course. |
| 4 | Assignments & Projects: - Papers survey or projects should be submitted by the time detriment by the professor. |
| 5 | Cheating: - According to the rules, cheating is a serious offense and will always result in an imposition of a penalty. The penalties that can be started from the range of canceling the result of the course to canceling the student's admission. |
| 6 | Plagiarism: - Plagiarism is a serious offense and will always result in an imposition of a penalty. The penalties that can be started by making a zero mark for the work. |
| 7 | Other policies: - The student should by a commitment by the rules inside class and university. Therefore, he is expected to show respect for his classmate, instructors & others. |



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كلية: البترول والموارد الطبيعية
قسم/ برنامج: هندسة النفط والغاز الطبيعي
العام الجامعي: 2019-2020م

خطة مقرر: ميكانيكا الموائع

Course Plan (Syllabus): Fluid Mechanics

| معلومات عن أستاذ المقرر Information about Faculty Member Responsible for the Course | | | | | | |
|---|---|--------------|----------------|-----------------|-----------------|---------------|
| الاسم Name | الساعات المكتبية (أسبوعياً) Office Hours | | | | | |
| المكان ورقم الهاتف Location & Telephone No. | السبت SAT | الأحد SUN | الاثنين MON | الثلاثاء TUE | الأربعاء WED | الخميس THU |
| البريد الإلكتروني E-mail | | | | | | |

| معلومات عامة عن المقرر General information about the course | | | | | |
|---|---|-------------------|----------------------------------|-------------------|-------------------|
| 1. اسم المقرر Course Title | Fluid Mechanics ميكانيكا الموائع | | | | |
| 2. رمز المقرر ورقمه Course Code and Number | PNGE 224 | | | | |
| 3. الساعات المعتمدة للمقرر Credit Hours | الساعات المعتمدة Credit Hours | | | | الإجمالي Total |
| | محاضرات Lecture | عملي Practical | سمنار/تمارين Seminar/Tutorial | تدريب Training | |
| | 2 | 1 | - | - | 3 |
| 4. المستوى والفصل الدراسي Study Level and Semester | 2 nd level, 1 st semester | | | | |
| 5. المتطلبات السابقة للمقرر Pre-requisites | PNR113, PNR 114 | | | | |
| 6. المتطلبات المصاحبة (إن وجدت) Co-requisite | - | | | | |
| 7. البرنامج الذي يدرس له المقرر Program (s) in which the course is offered | BSC Petroleum & Natural Gas Engineering | | | | |
| 8. لغة تدريس المقرر Language of teaching the course | English / Arabic | | | | |
| 9. مكان تدريس المقرر Location of teaching the course | Campus | | | | |

ملاحظة: الساعة المعتمدة للتمارين تساوي ساعتين فعليتين خلال التدريس.

وصف المقرر Course Description

Fluid Mechanics is a course concerned with studying the different types of fluids and their properties. Also it is concerned with studying fluids at rest (statics) and in motion (dynamics). Learning and understanding the principles of this course for oil & gas engineering students is essential in analysis and design of fluid systems. This course aims to introduce the fundamentals of fluid mechanics and its applications. The main objectives of this course are students to learn:

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- | | |
|--|---------------------------------------|
| - Fluid properties | - Types of flow |
| - Fluid pressure measurement | - Energy heads in fluids |
| - Forces affecting on submerged surfaces | - Bernoulli's theorem |
| - Bouncy and floatation | - Momentum principle in moving fluids |

Course Intended Learning Outcomes (CILOs) مخرجات تعلم المقرر

| After completing the course, the student will be able to: | بعد الانتهاء من دراسة المقرر سوف يكون الطالب قادرا على أن: |
|---|--|
| a1 Know the fundamentals of mathematics for modeling and analysis of fluid mechanic problems related to oil & gas engineering. | - a1 |
| a2 Understand the derivation of fluid mechanic concepts and theories by relating them to the real life engineering cases within oil & gas engineering | - a2 |
| a3 Demonstrate understanding of fluid physical properties. | -a3 |
| b1 Apply the various fluid mechanics theories and demonstrate creative abilities in calculating the hydrostatic forces on submerged surfaces, study bouncy and floatation, and calculate the kinematic energy of fluids. | -b1 |
| c1 Ability to write technical reports/researches in relevance to fluid mechanics. | - c1 |
| c2 carry out presentations on the studied engineering projects using the modern techniques and facilities. | - c2 |
| d1 Participate in team-works in a harmonized manner for the solution of the targeted problems in fluid mechanic applications. | - d1 |
| d2 Communicate effectively with his fellow engineers, and to improve continuously his scientific and practical level in fluid mechanic field. | - d2 |

Course Content:

A – Theoretical Aspect:

| Order | Units/Topics List | Sub Topics List | Week due | contact hours |
|-------|-----------------------------|--|----------|---------------|
| 1 | Unit 1: Fluid Properties | - Mass density - Weight density - Specific volume - Specific gravity - Viscosity | Week 1 | 2 |
| 2 | | - Surface tension - Capillary | Week 2 | 3 |

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| | | | | |
|--------------|--|--|-----------|-----------|
| | | <ul style="list-style-type: none"> - Bulk modulus - Vapor pressure | | |
| 3 | Unit 2: Pressure measurements | <ul style="list-style-type: none"> - Hydrostatic law - Absolute pressure - Vacuum pressure | Week 3 | 3 |
| 4 | | <ul style="list-style-type: none"> - Manometers: Piezometer U-shaped manometer | Week 4 | 3 |
| 5 | Unit 3: Hydrostatic forces on planes | <ul style="list-style-type: none"> - Hydrostatic forces on horizontal plane - Hydrostatic forces on vertical plane | Week 5 | 3 |
| 6 | | <ul style="list-style-type: none"> - Hydrostatic forces on inclined plane | Week 6 | 3 |
| 7 | | <ul style="list-style-type: none"> - Lock gates | Week 7 | 3 |
| 8 | Mid-term Exam | | Week 8 | 2 |
| 9 | Bouncy and Flotation | <ul style="list-style-type: none"> - Center of Bouncy - States of bouncy bodies equilibrium | Week 9 | 3 |
| 10 | Unit 4: Fluid Kinematics | <ul style="list-style-type: none"> - Classification of fluids flow - Fluids flow-line classification | Week 10 | 3 |
| 11 | | <ul style="list-style-type: none"> - Flow velocity and acceleration - Discharge - Continuity equation | Week 11 | 3 |
| 12 | | <ul style="list-style-type: none"> - Potential velocity - Flow function | Week 12 | 3 |
| 13 | Unit 5: Fluid dynamics | <ul style="list-style-type: none"> - Types of heads and energy of fluids in flow | Week 13 | 3 |
| 14 | | <ul style="list-style-type: none"> - Bernoulli's equation | Week 14 | 3 |
| 15 | | <ul style="list-style-type: none"> - Flow in pipes connected into pumps. | Week 15 | 3 |
| 16 | Final Exam | | Week 16 | 2 |
| Total | | | 16 | 46 |

| Practical / Training/ Tutorials/ Exercises Aspects خطة تنفيذ موضوعات الجانب العملي | | | |
|--|--|---------------------|----------------------------|
| الرقم Order | موضوعات العملي/ المهام / التمارين Practical/ Tutorials/ Exercises Aspects | الأسبوع Week Due | الساعات الفعلية Cont. H |
| 1 | Density Experiment | Week 1-2 | 4 |
| 2 | Viscosity Experiment | Week 3-4 | 4 |
| 3 | Mid term exam | Week 6 | 2 |
| 4 | Hydrostatic Pressure Experiment | Week 7-8 | 4 |
| 5 | Bernoulli Equation Experiment | Week 9-10 | 4 |

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| | | | |
|---|-----------------|---------|----|
| 6 | Lab. Final Exam | Week 12 | 2 |
| اجمالي الأسابيع والساعات الفعلية Number of Weeks /and Contact Hours Per Semester | | 10 | 20 |

| | |
|---|--|
| Teaching Strategies استراتيجيات التعليم والتعلم | |
| <ul style="list-style-type: none"> - Lectures - Discussion - Problems Solving - Project | |

| Tasks and Assignments الأنشطة والتكليفات | | | | |
|---|--------------------------------|--------------------------------|-------------------------|---------------------------|
| م No | التكليف/ الواجب Assignments | نوع التكليف (فردى / تعاوني) | الدرجة المستحقة Mark | أسبوع التنفيذ Week Due |
| 1 | Assignment 1 – Unit 1 | | 2 | W 3 |
| 2 | Assignment 2 – Unit 2 | | 2 | W 5 |
| 3 | Assignment 3 – Unit 3 | | 2 | W 9 |
| 4 | Assignment 4 – Unit 4 | | 2 | W 13 |
| 5 | Assignment 5 – Unit 5 | | 2 | W 15 |
| Total Score إجمالي الدرجة | | | 10/150 | |

| Learning Assessment تقويم التعلم | | | | |
|---|-------------------------------------|----------------------------------|----------------|---|
| م No | أساليب التقويم Assessment Method | موعد (أسبوع) التقويم Week Due | الدرجة Mark | الوزن النسبي % Proportion of Final Assessment |
| 1 | Assignment | Quarter | 10 | 6.6% |
| 2 | Participation | Weekly | 5 | 3.4% |
| 3 | Quizzes | End of a topic | 10 | 6.6% |
| 4 | Mid-Term (theoretical) | Week 8 | 15 | 10% |
| 5 | Mid-Term (practical) | Week 6 | 15 | 10% |
| 6 | Final Exam (practical) | Week 12 | 25 | 16.7% |
| 7 | Final Exam (theoretical) | Week 16 | 70 | 46.7% |
| Total المجموع | | | 150 | 100 % |

| Learning Resources مصادر التعلم | |
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| توثق المراجع حسب نظام APA (اسم المؤلف، سنة النشر، اسم الكتاب، دار النشر، بلد النشر). | |
| Required Textbook(s) المراجع الرئيسية (لا تزيد عن مرجعين) | |
| -المرجع الكامل في ميكانيكا الموائع (الجزء الأول) 2010 للمؤلف: شريف فتحي الشافعي – دار الكتب العلمية للنشر | |

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| والتوزيع – القاهرة - مصر |
| 2--Buddhi N. Hewakandamby (2012) – “A First Course in Fluid Mechanics for Engineers” bookboon.com |
| Essential References المراجع المساندة |
| Handouts |
| Electronic Materials and Web Sites etc. المصادر الإلكترونية ومواقع الإنترنت |
| none |

| Course Policies: | |
|------------------|---|
| 1 | Class Attendance: <ul style="list-style-type: none"> - Students are expected to attend classes regularly and promptly. - The attendance should not be less than 80%. - If the student has been absent, he is responsible for finding out any missed material by consulting other students or going to the professor’s office hours. |
| 2 | Tardy: <ul style="list-style-type: none"> - Attendance and arriving on time for the class are necessary. If the student is late, he will be prevented from class. |
| 3 | Exam Attendance/Punctuality: <ul style="list-style-type: none"> - According to the rules the student gets absent in the exam of the course. |
| 4 | Assignments & Projects: <ul style="list-style-type: none"> - Papers survey or projects should be submitted by the time detriment by the professor. |
| 5 | Cheating: <ul style="list-style-type: none"> - According to the rules, cheating is a serious offense and will always result in an imposition of a penalty. The penalties that can be started from the range of canceling the result of the course to canceling the student’s admission. |
| 6 | Plagiarism: <ul style="list-style-type: none"> - Plagiarism is a serious offense and will always result in an imposition of a penalty. The penalties that can be started by making a zero mark for the work. |
| 7 | Other policies: <ul style="list-style-type: none"> - The student should by a commitment by the rules inside class and university. Therefore, he is expected to show respect for his classmate, instructors & others. |