MOREHOUSE COLLEGE
DEPARTMENT OF PHYSICS & DUAL DEGREE ENGINEERING PROGRAM
HEGR 101 FRESHMAN ENGINEERING DESIGN
SPRING 2020

Instructor:  Dr. Emmanuel Karikari

E-mail: Emmanuel.Karikari@morehouse.edu or karikariemmanuel85@gmail.com

Office Phone: (470) 639-0652  Cell Phone: (770) 866-0385

Office Hours: M, W 1100 -1150, Dansby Hall Room 106-B


Class Time and Location: M, W, F 1300 - 1350; Dansby Room 115

Grading: Projects/Laboratory 30%
Homework & Quizzes 30%* Quiz at the end of each class
Midterm Exam 20%
Final Exam 20%

HEGR 101 course is a project-based introduction to engineering. Students will be introduced to major engineering concepts and also real-world case studies that resemble the problems that they would encounter in the field of engineering.

Academic Integrity Policy: The policies of Morehouse and the Department of Physics will be observed. Students who violate the departmental classroom policies can be withdrawn from class and could be subject to further disciplinary action from the College.

*No student will be allowed to use cell phone in class and during quizzes/exams.*
# Tentative Course Outline

<table>
<thead>
<tr>
<th>Week</th>
<th>Date</th>
<th>Topic</th>
<th>Reading Assignment</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>01/15 - 01/17</td>
<td>Introduction</td>
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<tr>
<td>2</td>
<td>01/20 - 01/24</td>
<td>History of Engineering Disciplines</td>
<td>Chapter 1</td>
</tr>
<tr>
<td>3</td>
<td>01/27 - 01/31</td>
<td>Presentation on Timelines</td>
<td>Chapter 1</td>
</tr>
<tr>
<td>4</td>
<td>02/03 - 02/07</td>
<td>Engineering Majors</td>
<td>Chapter 2</td>
</tr>
<tr>
<td>5</td>
<td>02/10 - 02/14</td>
<td>Calculations involving linear and quadratic functions</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>02/17 - 02/21</td>
<td>Succeeding in the Classroom</td>
<td>Chapter 6</td>
</tr>
<tr>
<td>7</td>
<td>02/24 - 02/28</td>
<td>Problem Solving</td>
<td>Chapter 7</td>
</tr>
<tr>
<td>8</td>
<td>03/02 - 03/06</td>
<td>MIDTERM WEEK</td>
<td></td>
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<tr>
<td>9</td>
<td>03/09 - 03/13</td>
<td>SPRING BREAK</td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>03/16 - 03/20</td>
<td>Presentation – Exercise &amp; Activity 7.4</td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>03/23 - 03/27</td>
<td>Teamwork Skills</td>
<td>Chapter 10</td>
</tr>
<tr>
<td>12</td>
<td>03/30 - 04/03</td>
<td>Engineering Design</td>
<td>Chapter 12</td>
</tr>
<tr>
<td>13</td>
<td>04/06 - 04/10</td>
<td>Computer Tools for Engineers</td>
<td>Chapter 9</td>
</tr>
<tr>
<td>14</td>
<td>04/13 - 04/17</td>
<td>Ethics and Engineering</td>
<td>Chapter 14</td>
</tr>
<tr>
<td>15</td>
<td>04/20 - 04/24</td>
<td>Ethics and Engineering</td>
<td>Chapter 14</td>
</tr>
<tr>
<td>16</td>
<td>04/27 - 04/29</td>
<td>Final Exams</td>
<td></td>
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</table>
MOREHOUSE COLLEGE
DUAL DEGREE ENGINEERING PROGRAM – DEPARTMENT OF PHYSICS
INTRODUCTION TO ENGINEERING GRAPHICS LECTURE & LAB
(HEGR 103 & 103L) Spring 2020

Instructor: Dr. Dwayne C. Joseph
E-mail: dwayne.joseph@morehouse.edu
Office Phone: (470) 639-0721

Office Location: Dansby Hall Room 106-A
Office Hours: MW 1300 - 1555
(all other times are by appointment)

Required text: Engineering Graphics Essentials with AUTOCAD 2018,
Platenberg; SDC Publications, Mission, KS

Required materials: 1 USB Memory Stick (1GB preferred)
Pencils (#2, HB, mechanical), Soft erasers, paper
(square/isometric grid)
Folder (Two – pocket)

Required programs: Processing: Programming for Visual Designers and Artists
https://www.processing.org/download
Autodesk: Fusion 360
https://www.autodesk.com/education/free-software/featured

Textbooks (PDFs): Visualization, Modeling, and Graphics for Engineering Design
by Dennis K. Lieu, Sheryl A. Sorby
Processing: A Programming Handbook... 2nd Edition
By Casey Reas, Ben Fry

Lecture time and location: T, TH 0925 – 1040; Dansby Hall Room 200
Lab time and location: T or TH 1500 – 1750; Dansby Hall Room 109A

Engineering Graphics Objective: To introduce students to the engineering design
process and how to communicate using graphic techniques.

HEGR 201 is a 3-credit hour course which identifies ideas, concepts, and processes at
the heart of an engineering discipline that students should know and be able to do.
Engineering drawings must be presented and arranged in a certain format so the
information they contain can be interpreted.

Major ideas, concepts, and processes in Engineering Graphics that are to be understood:
1. Ideas, designs, and manufacturing/construction procedures and techniques are
   communicated by words, numbers, and visual images.
2. Freehand sketches and CAD are used to model 3D objects.
3. Engineering tasks are performed by teams.
4. Engineers must modify or create entirely new programming platforms in order to process information.

Upon completion of this course, students will be able to:
1. Interpret technical drawings, charts, and graphs.
2. Use the language of engineering design.
3. Sketch oblique, isometric and multiview objects.
4. Create 2D and 3D drawings using CAD.
5. Learn programming basics and implementation on engineering creativity.
6. Participate constructively in team engineering activities.

Grading:

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Exams</td>
<td>25%</td>
</tr>
<tr>
<td>Quizzes</td>
<td>15%</td>
</tr>
<tr>
<td>Lab Assignments</td>
<td>25%</td>
</tr>
<tr>
<td>Project</td>
<td>20%</td>
</tr>
<tr>
<td>Final Exam</td>
<td>15%</td>
</tr>
<tr>
<td>Participation (HW, etc)</td>
<td>10%</td>
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</table>

110%

Grading policy:
- The following straight scale will be used
  
<table>
<thead>
<tr>
<th>Grade</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>A+</td>
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<td>92-98</td>
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<td>B</td>
<td>84-87</td>
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<tr>
<td>B-</td>
<td>80-84</td>
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<tr>
<td>C+</td>
<td>74-77</td>
</tr>
<tr>
<td>C</td>
<td>68-74</td>
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<tr>
<td>D+</td>
<td>64-67</td>
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<tr>
<td>D</td>
<td>60-64</td>
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<tr>
<td>D-</td>
<td>57-60</td>
</tr>
<tr>
<td>F</td>
<td>0-57</td>
</tr>
</tbody>
</table>

- **Makeups will be given only under extreme circumstances.** It is expected that the student will contact the professor sufficiently in advanced of the exam or have a valid reason why they could not do so.

- **NO FOOD OR DRINK IS ALLOWED IN LECTURE OR LABORATORY**

Exams:
- In class written exams are accumulative and
  - Will take place in the lecture room
  - Tests your knowledge of concepts and terminologies discussed in lecture and lab
  - Will be closed book and closed notes
  - Must be completed in pencil
- No partial credit will be given to any problem that was on a previous exam or quiz
- There are no bathroom breaks during examinations
- Exams will be announced at least one week before they are taken
- Practice Exams will be posted at least two days before the exam
Homework Assignments:
Homework assignments are not graded for their correctness, they are graded based on their completeness and the student’s ability to follow directions. Once submitted, the concepts from that assignment are covered during lecture and the its solution is then posted. It is the student’s responsibility to make sure they understand the assignment by asking questions and going over the solutions. Assignments are due by the start of class. If an assignment is submitted once class has started, it will be counted as late.

- For all assignments, the heading must be written in the top right corner of the first page and contain the following information:

Your Full Name
Graphics Assignment Name
Assignment Due Date
- Assignments will be posted during lecture or on Blackboard
- If an assignment is not posted at least 24 hours before lecture begins, students receive an extra 10% for its completion
- Assignments will be graded only if they are written neatly
- Assignments will be graded only if they are stapled together
- Assignments will be graded only if they are turned in at the start of class when they are due
- Assignments will be graded only if they are either typed or drawn in pencil
- Late assignments will only be worth 20%
- More than three (3) late assignments by the same student will be worth 0%
- If all assignments are submitted on time, student will receive an extra 5% for their HW grade
- If a student’s assignment is used for a solution set, they will receive up to an extra 10% on that assignment

Quizzes:
- Will cover theoretical and practical aspects related to previous lecture concepts
- May or may not be announced
- Will be open notes, excluding textbooks or laptops
- Must be completed in pencil
- The two lowest quizzes will be dropped

Lab Assignments:
- Labs start the week of 01/19
- Problems given during lab are expected to be completed during lab
- Every completed computer assignment must be saved on your USB memory stick in a separate folder for Engineering Graphics
- Lab assignments may consists of the following:
  - In-lab sketches (worth 50%)
  - Programming/CAD Exercises (worth 10%)
  - Programming/CAD Problems (worth 40%)
- Sketches must be completed in lab, during lab.
• Programming (or CAD) Exercises/Problems must be completed by the time specified
• Anyone who is not present for lab is prohibited from the in-lab assignment, however they are still eligible to submit the computer-based assignment by the time specified.
• Every file that you save must have the following format
  o First name initial, last name, underscore, assignment name
  o Example: djoseph_project1.jpg
• Anyone more than 15min late for lab will be considered absent
• Lowest lab grade will be dropped
• Students exceeding one unexcused absence in lab risk failing lab

Preparation and Responsibilities:
• Take initiative and participate actively in classroom activities.
• You are responsible for all sections in the book written in the outline of the course (even if not covered in class)
• You are responsible for all material presented in class (even if not covered in the book)
• You are responsible for all information that is on Blackboard
• Look over the material that will be covered in class before coming to class
• Review the book and class notes before coming to office hours
• All sketches must be completed in pencil
• Anything you do not understand it is your responsibility to ask. Do not assume
• Send questions and schedule appointments via email
  o Emails must include subject, greeting, body of content, complimentary closing, signature
  o If your email is not in the proper format, you will not receive a response
• Send a txt to inform me you that sent an email so that I may check my email promptly
• Class Attendance is 100% required – students exceeding three (3) unexcused absences in lecture risk failure of this course
• All work submitted must be your own
• Academic dishonesty will not be tolerated
• A comprehensive score of 85% or higher makes the final exam optional
• No sleeping or on cell phones during class
  o First time warning, second time the student will be asked to leave and receive an absence for that day
• Absences are excused only when notice is given before the start of class
• Students must arrive on time. Tardiness will not be tolerated
• If food or drink is brought into the class, the student will be asked to leave and receive an absence for that day
• NO FOOD OR DRINK IS ALLOWED IN LECTURE OR LABORATORY
## TENTATIVE COURSE OUTLINE

<table>
<thead>
<tr>
<th>Week</th>
<th>Lecture</th>
<th>Topic</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>1</td>
<td>Introduction to Engineering Graphics</td>
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<tr>
<td>2</td>
<td>2</td>
<td>Presentation of Data</td>
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<tr>
<td>3</td>
<td>3</td>
<td>Technical Sketching</td>
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<td></td>
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<td>Coded Plans</td>
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<td>4</td>
<td>4</td>
<td>Visualization</td>
</tr>
<tr>
<td>5</td>
<td>5</td>
<td>Orthographic Projection (OP)</td>
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<td>6</td>
<td>6</td>
<td>Missing OP: Lines, Views</td>
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<tr>
<td></td>
<td>7</td>
<td>Adv Visualization</td>
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<td>7</td>
<td>8</td>
<td>Pictorials: Perspective drawings</td>
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<td></td>
<td>9</td>
<td>Engineering Design Process</td>
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<tr>
<td>8</td>
<td></td>
<td>Exam 2</td>
</tr>
<tr>
<td>9</td>
<td>10</td>
<td>Spring Break</td>
</tr>
<tr>
<td>10</td>
<td>11</td>
<td>Dimensions</td>
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<td></td>
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<td>Working on Team Project</td>
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<tr>
<td>11</td>
<td>12</td>
<td>Tolerance</td>
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<td></td>
<td></td>
<td>Exam 3</td>
</tr>
<tr>
<td>12</td>
<td>13</td>
<td>Section Views</td>
</tr>
<tr>
<td>13</td>
<td>14</td>
<td>Assemblies &amp; Working Drawings</td>
</tr>
<tr>
<td>14</td>
<td>16</td>
<td>Technical Animations</td>
</tr>
<tr>
<td>15</td>
<td></td>
<td>Reading period</td>
</tr>
<tr>
<td>16</td>
<td></td>
<td>Final</td>
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<td></td>
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<td>TBA</td>
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## TENTATIVE LAB OUTLINE

<table>
<thead>
<tr>
<th>Lab</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Graphical Communication Software downloads</td>
</tr>
<tr>
<td>2</td>
<td>Graphics Drawing Exercises</td>
</tr>
<tr>
<td></td>
<td>Processing: Using Processing</td>
</tr>
<tr>
<td>3</td>
<td>Visualization Exercises</td>
</tr>
<tr>
<td></td>
<td>Processing: Drawing geometric shapes</td>
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<tr>
<td>4</td>
<td>OP Exercises</td>
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<td></td>
<td>Processing: Conditional &amp; logic statements</td>
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<tr>
<td>5</td>
<td>Adv Visualization Exercises</td>
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<td></td>
<td>Processing: Polar coordinates</td>
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<tr>
<td>6</td>
<td>Processing: Vectors</td>
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<tr>
<td>7</td>
<td>Dimension Exercises</td>
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<tr>
<td></td>
<td>Processing: Project</td>
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<tr>
<td>8</td>
<td>Processing: Project</td>
</tr>
<tr>
<td>9</td>
<td>Autodesk: Conceptual Design</td>
</tr>
<tr>
<td>10</td>
<td>Autodesk: 3D Part Design</td>
</tr>
<tr>
<td>11</td>
<td>Autodesk: Detailed Component Design</td>
</tr>
<tr>
<td>12</td>
<td>Autodesk: Assemblies</td>
</tr>
<tr>
<td>13</td>
<td>Autodesk: Design Visualization</td>
</tr>
</tbody>
</table>
Grievances Policy
In the event of a course related disagreement with the course professor, the student is encouraged to first seek resolution with that professor. If a resolution cannot be reached between the student and course professor, the student may submit a departmental Grievance Form that can be obtained from the Departmental Admin. The Chair will then review the grievance, and if necessary, will meet with the student and professor to determine an amicable resolution as quickly as possible.

Morehouse College is committed to equal opportunity in education for all students, including those with documented disabilities. Students with disabilities or those who suspect they have a disability must register with the Office of Disability Services ("ODS") in order to receive accommodations. Students currently registered with the ODS are required to present their Disability Services Accommodation Letter to faculty immediately upon receiving the accommodation. If you have any questions, contact the Office of Disability Services, 104 Sale Hall Annex, Morehouse College, 830 Westview Dr. S.W., Atlanta, GA 30314, (404) 215-2636, FAX: (404) 215-2749.

A syllabus is not a contract between instructor and student, but rather a guide to course procedures. The instructor reserves the right to amend the syllabus when conflicts, emergencies or circumstances dictate. Students will be duly notified.
MOREHOUSE COLLEGE
DUAL DEGREE ENGINEERING PROGRAM – DEPARTMENT OF PHYSICS
ENGINEERING STATICS  HEGR 205  SPRING 2020

Instructor:  Dr. Emmanuel Karikari
E-mail: Emmanuel.Karikari@morehouse.edu
Office Phone:  (470) 639-0652  Cell Phone:  (770) 866-0385

Office Hours:  M,W,F  09:00 – 10:00  Dansby Hall Room 106 B


Class Time and Location:  M,W,F  08:00 – 08:50  Dansby Hall Room 115

Prerequisites:  Mechanics II/IIY 154

Grading:

<table>
<thead>
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<th>Component</th>
<th>Percentage</th>
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<td>Examinations (3/4)</td>
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<tr>
<td>Final Examination</td>
<td>25%</td>
</tr>
<tr>
<td>HW &amp; Quizzes/Lab</td>
<td>25%</td>
</tr>
<tr>
<td>DDEP FACTS/SEMINARS</td>
<td>5%</td>
</tr>
</tbody>
</table>

Statics HPHY 205 as a 3-credit hour course that deals with the mechanics of rigid bodies at rest. The course is based on 4 fundamental principles, namely, Newton's first and third laws, parallelogram law of addition, and the principle of transmissibility. These principles will provide us with the necessary and sufficient foundation for the entire study of statics of particles, rigid bodies, and systems of rigid bodies.

Academic Integrity Policy: The policies of Morehouse and the Department of Physics will be observed. Students who violate the departmental classroom policies can be withdrawn from class and could be subject to further disciplinary action from the College.

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Attendance Requirements:

Students are expected to attend each class meeting. Students with more than 3 unexcused absences will be referred to the Office of Student Success and may be administratively withdrawn from the course. Failure to meet minimum attendance requirements may result in the loss of the student's financial aid in accordance with federal financial aid requirements.

EEO & Disability Statement:

Morehouse College is an equal opportunity employer and educational institution. Students with disabilities or those who suspect they have a disability must register with the Office of Disability Services ("ODS") in order to receive accommodations. Students currently registered with the ODS are required to present their Disability Services Accommodation Letter to faculty immediately upon receiving the accommodation. If you have any questions, contact the Office of Disability Services, 104 Sale Hall Annex, Morehouse College, 830 Westview Dr. S.W., Atlanta, GA 30314, (404) 215-2636.

Academic Dishonesty:

Morehouse College students are expected to conduct themselves with the highest level of ethics and academic honesty at all times and abide by the terms set forth in the Student Handbook and Code of Conduct. Instances of academic dishonesty, including, but not limited to plagiarism and cheating on examinations and assignments, are taken seriously and may result in a failing grade for the assignment or course and may be reported to the Honor and Conduct Review Board for disciplinary action.

Syllabus is not a Contract:

A syllabus is not a contract between instructor and student, but rather a guide to course procedures. The instructor reserves the right to amend the syllabus when conflicts, emergencies or circumstances dictate. Students will be duly notified.

Inclement Weather Policy:

In the event of inclement weather, the College will announce any closures via the emergency notification system and/or through local news outlets. Absent an official closure, students are not excused from attending class due to weather and any absences will be considered unexcused.
## TENTATIVE COURSE OUTLINE

| WEEK 1 | 01/15 - 01/17 | Review of Mechanics  
Section 2.1 - 2.8 |
| WEEKS 2&3 | 01/20 - 01/31 | Statics of Particles  
Section 2.9 - 2.14  
Rigid Bodies  
Section 3.1 - 3.8 |
| WEEKS 4&5 | 02/03 - 02/14 | Rigid Bodies: Equivalent Force Systems  
Section 3.12 - 3.16  
Section 3.17 - 3.20  
EXAMINATION 1 [ ] |
| WEEKS 6&7 | 02/17 - 02/28 | Equilibrium of Rigid Bodies  
Section 4.1 - 4.5 |
| WEEK 8 | 03/02 - 03/06 | Equilibrium of Rigid Bodies  
Section 4.8 - 4.9  
MID-TERM EXAMINATION [ 03/06] |
| WEEK 9 | 03/09 - 03/13 | SPRING BREAK |
| WEEKS 10&11 | 03/16 - 03/27 | Analysis of Structures  
Section 6.9 - 6.12  
Section 6.7 |
| WEEKS 12&13 | 03/30 - 04/10 | Forces in Beams  
Section 7.1 - 7.5  
EXAMINATION 3 [ ] |
| WEEKS 14&15 | 04/13 - 04/24 | Forces in Beams  
Section 7.1 - 7.5 |
| WEEK 16 | 04/27-04/29 | REVIEW FOR FINAL EXAMINATION |

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The instructor reserves the right to amend the syllabus when conflicts, emergencies or circumstances dictate.  Students will be duly notified*
Morehouse College
Department of Physics / Dual Degree Engineering Program

**ENGINEERING DYNAMICS**  **HEGR 308**  **Spring 2020**

**Time and Days:**  10:00 - 10:50 AM  M, W, F  Dansby 118

**Instructor:**  Dr. Emmanuel Karikari  
Emmanuel.Karikari@morehouse.edu

470-639-0652 (Office)  770-866-0385 (Cell phone)

**Office / Hours:**  Dansby 106-B  M, W 09:00 AM - 10:00 AM & by appointment


**References:**  Notes relating to topics that complement the lecture will be provided.

**Prerequisites:**  HPHY 154 - Mechanics  HEGR 205 - Statics

**POLICIES:**

1. **Respect:** You will have respect for the instructor and your fellow classmates at all times; your focus should be on the material presented.

2. **Class Attendance** is 100% required. Students exceeding three (3) unexcused absences risk failure of this course.

3. **Homework** will be assigned weekly to provide practice for any materials covered. Individual and group quizzes will be given regularly on the homework problems and materials taught in class.

4. **No head covering of any kind is allowed in the classroom.**

5. **Collaboration, Plagiarism, and Cheating:** Collaboration is encouraged, but duplication of work for homework and assignments is considered plagiarism, and cheating during quizzes and exams will be dealt with according to Morehouse Policies.

6. **Cell phones cannot be used during class or examination!!!!!!**

7. **Grades:**

<table>
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<th></th>
<th>%</th>
<th>Scale</th>
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<tbody>
<tr>
<td>Tests (3/4)</td>
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<td>A ≥ 90%</td>
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<tr>
<td>Homework/ Quizzes</td>
<td>25</td>
<td>80 ≤ B &lt; 90%</td>
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<tr>
<td></td>
<td></td>
<td>70 ≤ C &lt; 80%</td>
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<tr>
<td>Final Exam</td>
<td>25</td>
<td>60 ≤ D &lt; 70%</td>
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<td>F &lt; 60%</td>
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**DDEP FACTS/SEMINARS**  5
TENTATIVE COURSE OUTLINE

Engineering Dynamics ----- Spring 2020

Kinematics of Particles

Weeks 1 and 2  1/15 – 1/24   Review of mechanics & rectilinear motion of
Particles ---- 11.1 – 11.5

Week 3  1/27 – 1/31   Motion of several particles ---- 11.6

Week 4  2/3 – 2/7   Projectile Motion ---- 11.11

Exam 1 [ ]

Week 5  2/10– 2/14   Motion relative to frame in translation 11.1

Week 6  2/17 – 2/21   Tangential and normal components ---- 11.13

Radial and transverse components ---- 11.14

Kinetics of Particles

Week 7  2/24 – 2/28   Newton’s 2nd Law ---- 12.1 – 12.3

Week 8  3/02 – 3/06   Newton’s 2nd Law ---- 12.3 – 12.6

Mid Term Exam [3/06]

Week 9  3/09 – 3/13  SPRING BREAK

Week 10  3/16 – 3/20   Newton’s 2nd Law (cont’d)

Week 11  3/23 – 3/27   Angular momentum ------- 12.7 – 12.9


Exam 3 [ ]

Week 13  4/06 – 4/10   Impulse and momentum --- 13.10 – 13.11

Week 14  4/13 – 4/17   Impact ---- 13.12 – 13.15

Week 15  4/20 – 4/24   Rigid Bodies ---- 15.1 – 15.8 – 16

Exam 4 [ ]

Week 16  4/27 – 4/29   Review for Finals

[Signature]  1/27/20
**PHY 253L Electricity & Magnetism Physics Laboratory (Spring 2020)**

**Time and Date:** 1:00 - 3:50PM and 7:00 – 9:50 on specified dates (see schedule below)

**Room:** Dansby 119

**Instructor:** Prof. A.C. Johnson

**Email/Contact #:** al.johnson@morehouse.edu / (470) 639-0219

**Office/Hours:** DH 102 / by appointment only

**Required Manual (On-line):** Experiments for Physics 253 by Physics Dept.

**Grading:** Labs (best 7 of 9) 20% of course grade

**Course Outline:**

<table>
<thead>
<tr>
<th>Date</th>
<th>Session</th>
<th>Lab Title</th>
<th>Lab Report Due</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thurs, 2/6</td>
<td>1</td>
<td>The Electric Field</td>
<td>Mon, 2/10 by 6pm in main office</td>
</tr>
<tr>
<td>Thurs, 2/13</td>
<td>2</td>
<td>Ohm’s Law</td>
<td>Mon, 2/17 by 6pm in main office</td>
</tr>
<tr>
<td>Thurs, 2/20</td>
<td>3</td>
<td>The Wheatstone Bridge</td>
<td>Mon, 2/24 by 6pm in main office</td>
</tr>
<tr>
<td>Thurs, 2/27</td>
<td>4</td>
<td>The Voltmeter &amp; Ammeter</td>
<td>Mon, 3/2 by 6pm in main office</td>
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<tr>
<td>Thurs, 3/5</td>
<td>5</td>
<td>Capacitors</td>
<td>Mon, 3/9 by 6pm in main office</td>
</tr>
<tr>
<td>Thurs, 3/12</td>
<td></td>
<td>Spring Break (no classes or labs)</td>
<td>Mon, 3/12 by 6pm in main office</td>
</tr>
<tr>
<td>Thurs, 3/19</td>
<td>6</td>
<td>The Magnetic Field</td>
<td>Mon, 3/23 by 6pm in main office</td>
</tr>
<tr>
<td>Thurs, 3/26</td>
<td>7 &amp; 8</td>
<td>The Earth’s Magnetic Field Faraday’s Law</td>
<td>Fri, 3/30 by 6pm in main office</td>
</tr>
<tr>
<td>Thurs, 4/2</td>
<td>9</td>
<td>Alternating Current</td>
<td>Mon, 4/6 by 6pm in main office</td>
</tr>
</tbody>
</table>

**Laboratory Regulations:**

- No eating or drinking. No chewing (gum, tobacco, etc.) or smoking. No hats or inappropriate clothing.
- No cell phones or unauthorized technology including but not limited to camcorders, hand-held devices.
- Disrespectful behavior will not be tolerated. This includes tardiness, disruptions and sleeping.
- Academic dishonesty will not be tolerated and such infractions will be handled severely.
- Show your work on all laboratory reports and assignments.
- No work will be accepted in pencil. Pencil usage will constitute a “zero” for the corresponding laboratory.
- Each student must read the corresponding laboratory at least twice prior to the scheduled laboratory period.
- Documentation for excused absents are due immediately upon returning to class. The student absentee policy will be enforced (see student handbook for details).