## Grading scale for Homework

$100 \%$ Demonstrates mastery of ideas and concepts. Solutions show a proper balance of conceptual and mathematical reasoning. Can derive relevant equations or identify them in the class notes. Calculates numerical quantities correctly (with units). Shows an ability to judge if a result (expression or numerical quantity) makes sense in a specific context. Able to self-correct if that is not the case.
$100 \%$ Shows good grasp of ideas and concepts with minor gaps. Solutions use a mix of conceptual and mathematical reasoning. Shows some ability to derive relevant equations or identify them in the class notes. Calculates numerical quantities with minor error or leaves out units. Shows some ability to judge if a result (expression or numerical quantity) makes sense in a specific context. Shows some ability to self-correct if that is not the case.

90\% Shows limited grasp of ideas and concepts with major gaps. Solutions are overly reliant on math and makes little use of conceptual reasoning. Shows limited ability to derive relevant equations or identify them in the class notes. Calculates numerical quantities with orders-of-magnitude error and/or leaves out units. Shows little ability to judge if a result (expression or numerical quantity) makes sense in a specific context. Shows little ability to self-correct if that is not the case.
$50 \%$ Shows poor grasp of ideas and concepts. Solutions show major failures of conceptual or mathematical reasoning. Is not able to derive relevant equations or identify them in the class notes. Fails to calculate numerical quantities, provide units, or judge if they make sense. Shows little to no ability to self-correct.
$0 \% \quad$ No attempt at solving the problem.

## Grading scale for Midterm and Final Exams

$100 \%$ Demonstrates mastery of ideas and concepts. Solutions show a proper balance of conceptual and mathematical reasoning. Can derive relevant equations or identify them in the class notes. Calculates numerical quantities correctly (with units). Shows an ability to judge if a result (expression or numerical quantity) makes sense in a specific context. Able to self-correct if that is not the case.
$75 \%$ Shows good grasp of ideas and concepts with minor gaps. Solutions use a mix of conceptual and mathematical reasoning. Shows some ability to derive relevant equations or identify them in the class notes. Calculates numerical quantities with minor error or leaves out units. Shows some ability to judge if a result (expression or numerical quantity) makes sense in a specific context. Shows some ability to self-correct if that is not the case.
$50 \%$ Shows limited grasp of ideas and concepts with major gaps. Solutions are overly reliant on math and makes little use of conceptual reasoning. Shows limited ability to derive relevant equations or identify them in the class notes. Calculates numerical quantities with orders-of-magnitude error and/or leaves out units. Shows little ability to judge if a result (expression or numerical quantity) makes sense in a specific context. Shows little ability to self-correct if that is not the case.
$25 \%$ Shows poor grasp of ideas and concepts. Solutions show major failures of conceptual or mathematical reasoning. Is not able to derive relevant equations or identify them in the class notes. Fails to calculate numerical quantities, provide units, or judge if they make sense. Shows little to no ability to self-correct.
$0 \% \quad$ No attempt at solving the problem.

