



BME 260L Project #1 Model Quality

team 5

	Score	Max
Conceptual Model Quality <ul style="list-style-type: none"> Selected multi-unit system captures key aspects Related assumptions complete and appropriate <p>- no dead space - air straight into alveoli. - one box as "all lungs" - Pulmonz Morpholisin, so really 2 units</p>	8	20
Selected Components <ul style="list-style-type: none"> Selected chemical components capture important changes Related assumptions complete and appropriate Compounds reasonably track through the model <p>- O₂, CO₂, pvs [pvs in only 1 unit] - 50% as "sick" is very low. < didn't meet spirit of assignment ></p>	4	10
Mathematical Model Quality <ul style="list-style-type: none"> Selected or derived equations (accounting, kinetic, relational) capture key movements and changes Related assumptions complete and appropriate <p>- Used in & out (literature value) to calc across membrane (diff) - 1 vs 2 lobes of lungs - confusion. - calc of outlet of pneumonia by hand.</p>	12	25
Model Results <ul style="list-style-type: none"> Model results demonstrate important features of system and demonstrate insight into system Model results are reasonable (e.g., right order of magnitude) <p>- results don't provide insight to model - result #'s don't match</p>	10	25

both places

	Score	Max
Discussion and Implications <ul style="list-style-type: none"> • New insights gleaned from model • Demonstrated understanding of limitations of model <p> → No. → Some. </p> <p>- see notes in paper</p>	12	20
TOTAL (OVERALL GRADE)	46	100