Case 1
Describe the gross findings. What is the normal weight of an adult lung?
Case 1
Name the structure. Identify the labels.

Case 1
Identify the labels

Case 1
Describe the histology on low power
Case 1 Describe the histologic findings.
Name A-E

Case 1
Describe the histologic findings

Case 2
Case History
A 67-year-old man presents with dyspnea. He also complains of cough, which is worse in the mornings, off and on for several years. There is no history of fever or purulent sputum or cyanosis. He smokes two packs of cigarettes/day for the last 50 years.
On exam there is hyper-resonance of the chest by percussion and prolonged expiratory phase on auscultation.
Case 2 Describe the gross findings. Comment on “A”.

Case 2 Describe the primary abnormality

Case 2 Describe the low power findings on B. Compare with the normal lung in A.
Case 2
Describe the high power findings

Case 2
Describe the histologic findings. Correlate with the gross specimen
(note – this section was taken near the pleural surface)

Case 2
What is your diagnosis?
What is the most common etiology of this disease process? What are other potential etiologies?
Case 2
Correlate the morphologic findings with the classic radiographic findings.

Case 2
Proceed to Slides 26 and 27 and be prepared to discuss the characteristics for “Case 2”

Case 3
History
A 58 year-old man has had 2 ½ years of progressive dyspnea. He is now short of breath with minimal exertion. He denies fever, chest pain or hemoptysis. He has never smoked cigarettes. On physical exam he is hypoxic. On chest auscultation there are fine, diffuse, end-inspiratory crackles (sound like Velcro). Chest X-ray shows bilateral interstitial infiltrates with a peripheral distribution.
Case 3
Describe the gross findings in B. Compare to normal lung in A.
Case 3 – Describe the findings on 20X

Case 3 – Describe the high power findings. Be sure to analyze the focus in the box

Case 3
Describe the high power findings
Case 3

Correlate the gross/radiographic images with the histology.

What is your diagnosis? Are there other disease process in the differential?

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Case 2 and 3 Comparison

<table>
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<th>Characteristic</th>
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Case 2 characteristics will be summarized by Case 2 presenters

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Case 2 & 3 Comparison

Summarize/Contrast the morphologic changes

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Case 4
History
A 44-year-old woman undergoing chemotherapy for metastatic ovarian cancer is admitted to the hospital with sepsis secondary to a urinary tract infection. Over the next 2 days she develops progressive dyspnea. She becomes hypoxic and cyanotic and requires increasing oxygen concentration.

Case 4  Interpret the chest x-ray. What disease processes could this represent?

Case 4  Describe the gross findings in B. Compare to the normal lung in A.
Case 4
Describe the low power findings in B.
Contrast with normal in A

Case 4
Describe the findings on 20x

Case 4
Describe the high power findings
Case 4

What is your diagnosis?

Correlate the clinical and morphologic findings.

Case 4

List the most common etiologies of this condition.

Be prepared to compare/contrast the pathogenesis of this disease process with that of Case 5 after it is presented.

Case 5

Case History

A newborn develops respiratory insufficiency. He was born at 25 weeks gestation and weighed 500 gm at birth. The mother had fever for 3 days before delivery and the amniotic fluid was purulent. Surfactant and antibiotics were administered. The baby's condition deteriorated rapidly and he died 8 hours later.
Case 5 – Interpret the x-ray focusing on the lung findings.

Case 5
Describe the gross findings in B. Compare to the normal lung in A.

Lung weight on the right: 25g
Normal lung weight in 25 weeks gestational age: 19g

Case 5
Describe the lower power findings in B. Contrast with normal fetal lung in A (note a developing fetal lung has histologic differences compared to a fully developed lung)
Case 5. Describe the high power findings in B. Compare with normal in A

Case 5
Based on the clinical and morphologic findings, what is your diagnosis?

What are the “structures” highlighted by the arrows composed of?

Case 5
Correlate the clinical findings with the pathology.

Compare/contrast the pathogenesis of this disease process with that of Case 4 (Case 4 student presenters are prepared to discuss with you).
Case 5 – Alternate scenario

This newborn ultimately survives this disease process. During his course of care he receives high concentrations of ventilator-administered oxygen for prolonged periods. Describe the two most common associated complications he may develop.