On this test I worked toward a few different course objectives. However, the main two were developing the knowledge to calculate moist air properties and define different air-conditioning processes using the Psychometric chart. This was used in both questions on the test. Both questions used psychometric processes to solve the questions.

When comparing my solutions to the provided solutions I realized that I made a lot of mistakes. On question one my psychrometric chart processes were wrong. The air flow rate should have been calculated with the heating process. I did not use the mixing equation to determine state four. Finally, the cooling capacity should have been calculated with state 1 and 1'. For question two I got more correct than I did in question one. What I did wrong was assuming the refrigerant temp in the evaporator and condenser and I did not use the isentropic efficiently.

During this test, the biggest issue I encountered was making small, avoidable mistakes that built upon each other and impacted multiple parts of my work. This was mainly due to working late at night, which affected my focus and led to poor decision-making. I approached the test step by step, carefully working through each problem to the best of my ability. If I were to do it again, I would change the timing, completing the test earlier in the day and taking breaks would have helped me stay more alert. One concept I became more comfortable with was using the psychrometric chart, which I initially found confusing but started to understand better through this test. Engineers use these concepts in HVAC design, environmental controls, and refrigeration systems, for example, managing humidity and temperature using psychrometric data. I think I will use this knowledge in the future if I work in fields related to mechanical engineering, energy systems, or HVAC. Even if I don't apply these exact tools daily, understanding thermodynamics is still essential for my professional development. I might use this knowledge during internships, future projects, or troubleshooting energy systems. While I haven't applied it at work, I've noticed stronger connections to other course material, especially in how variables like enthalpy and humidity ratio relate to energy efficiency. I improved the most in identifying and organizing variables, an area where I had previously struggled. This course could intersect with my future career, especially in building systems or renewable energy. I spent four to five hours on the test, but my time was poorly organized. In the future, I will manage my schedule better, start earlier, and take breaks to maintain focus and reduce the chance of compounding mistakes.

What grade I think I should receive:

Writing Rubric (whole test):

1.	Purpose	0.5/10.0 out of 0.5/10.0
2.	Drawings	1.0/10.0 out of 1.0/10.0
3.	Sources	1.0/10.0 out of 1.0/10.0
4.	Design considerations	1.0/10.0 out of 1.0/10.0
5.	Data and variables	0.5/10.0 out of 0.5/10.0
6.	Procedure	2.0/10.0 out of 2.0/10.0
7.	Calculations	2.0/10.0 out of 2.0/10.0
8.	Summary	0.5/10.0 out of 0.5/10.0
9.	Materials	0.5/10.0 out of 0.5/10.0
10.	Analysis	1.0/10.0 out of 1.0/10.0
TOTAL		**10.0/10.0**

Problem 1:

50% on this problem due to my many errors which led to wrong answers.

Problem 2:

75% on this problem because I got a lot of the processes correct, but my answers were off.

Total:

(80/2)*(.5 + .75)= 50 out of 90

Plus 10 from the extra credit problem

Plus 9.2 from homework

Total grade of 69.2%