

## Sample Diagnostic Report for Pencil-and-Paper Exams

NCEES provides all examinees who do not pass with a diagnostic report to help them identify the knowledge areas in which they need to improve before retaking the exam. The purpose of this report is to provide general information on their performance; it is not designed to be used for any other purpose.

The report shows the number of items in each knowledge area as well as the examinee's performance in terms of number of correct items and percentage correct. The report also provides information showing the examinee's relative performance in each knowledge area when compared to the average of the passing examinees. The performance comparison chart is not shown to scale and simply indicates the relative performance to assist the examinee in preparing to retake the exam.

Please see the sample diagnostic report for the PE Chemical exam on the next page. In reviewing the report, here is how the examinee should interpret the results: (Colors shown are for illustrative purposes only. Actual reports are grayscale.)

- Mass and Energy Balances and Thermodynamics: I only got 8 out of 19 correct in these knowledge areas, and that was a lot less than the average passing examinee. This is an area I need to work on.
- Fluids: I seem to be consistent with the average passing examinee. I should still review this area prior to retaking the exam, but there are other areas that need more of my focus.
- Heat Transfer: Again, compared to the average passing examinee, I'm in pretty good shape.
- Mass Transfer: This is an area I really need to work on. Even though there are just 10 questions, I only got one correct, and the average passing examinee did much better than I did.
- Kinetics: Again, overall the average passing examinee did better than I did. While there are just nine questions, I only got four correct. There's still room for improvement in this area.
- Plant Design and Operation: Compared to the average passing examinee, I did better in two areas and worse in four. Overall, I got 10 out of 15 correct. Again, there's still room for improvement in this area.

My study priorities prior to retaking the exam are as follows:

- 1. Mass and Energy Balances and Thermodynamics, Mass Transfer—very strong focus
- 2. Kinetics, Plant Design & Operation—strong focus
- 3. Fluids, Heat Transfer-general review

For more information on the knowledge areas included in each of the PE exams, download exam specifications at nees.org/exams.



rincip	les and Practice of Engineering - Chemical	Your Performance Compared to Average of Passing Examinee			
	Knowledge Area	Number of Items	Your Performance (No. Correct)	Your Performance (% Correct)	Average of Passing Examinees = You =
1	Mass & Energy Balances & Thermodynamics: Mass Balances	9	3	33	
2	Mass & Energy Balances & Thermodynamics: Energy Balances & Thermodynamics	10	5	50	
3	Fluids: Fluid Transport	2	2	100	
4	Fluids: Mechanical-Energy Balance	9	7	77	
5	Fluids: Flow Measurement Techniques	3	2	66	
6	Heat Transfer: Mechanisms	5	4	80	
7	Heat Transfer: Applications	8	5	62	
8	Mass Transfer: Phase Equilibria	4	0	0	
9	Mass Transfer: Mass Transfer Contactors (Absorption-etc)	5	1	20	
10	Mass Transfer: Miscellaneous Separation Processes	1	0	0	
11	Kinetics: Reaction Parameters	2	1	50	
12	Kinetics: Reaction Rate	2	0	0	
13	Kinetics: Reactor Design & Evaluation	3	2	66	
14	Kinetics: Heterogeneous Reaction Systems	2	1	50	
15	Plant Design & Operation: Economic Considerations	2	1	50	
16	Plant Design & Operation: Design & Operation	4	3	75	
17	Plant Design & Operation: Safety	3	3	100	
18	Plant Design & Operation: Environmental	2	2	100	
19	Plant Design & Operation: Materials	2	1	50	
20	Plant Design & Operation: Process Control	2	0	0	

- The purpose of this diagnostic report is to provide feedback about your exam results and to help focus your preparation for retaking the exam. It is neither intended nor designed to be used in determining the passing score.
- The last column represents your performance in a knowledge area compared to the average performance of all passing examinees. For each knowledge area, the portion of the bar between your performance (solid line) and the average performance of the passing examinees (dashed line) indicates the relative difference between your performance and the performance average of the examinees who passed.
- Performance in a knowledge area significantly below that of the average passing candidate contributed to your failing the exam. Substantial study of this material is recommended before retaking the exam. Performance in a knowledge area near or above that of the average passing candidate indicates your understanding may be improved by further study, thus improving your chances of passing the exam.