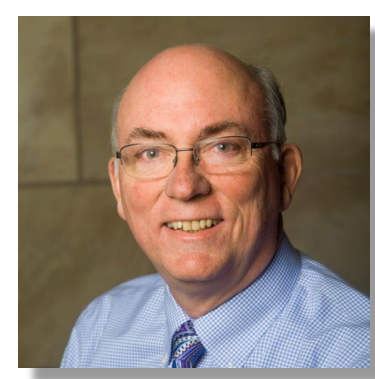


# Using the CS2013 Exam for ABET Student Outcome Assessment

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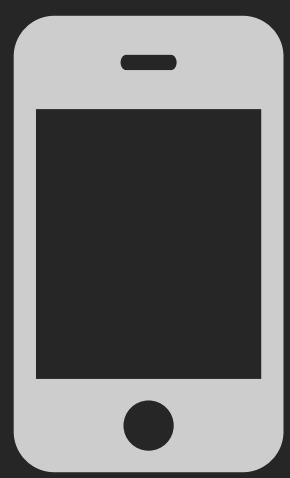
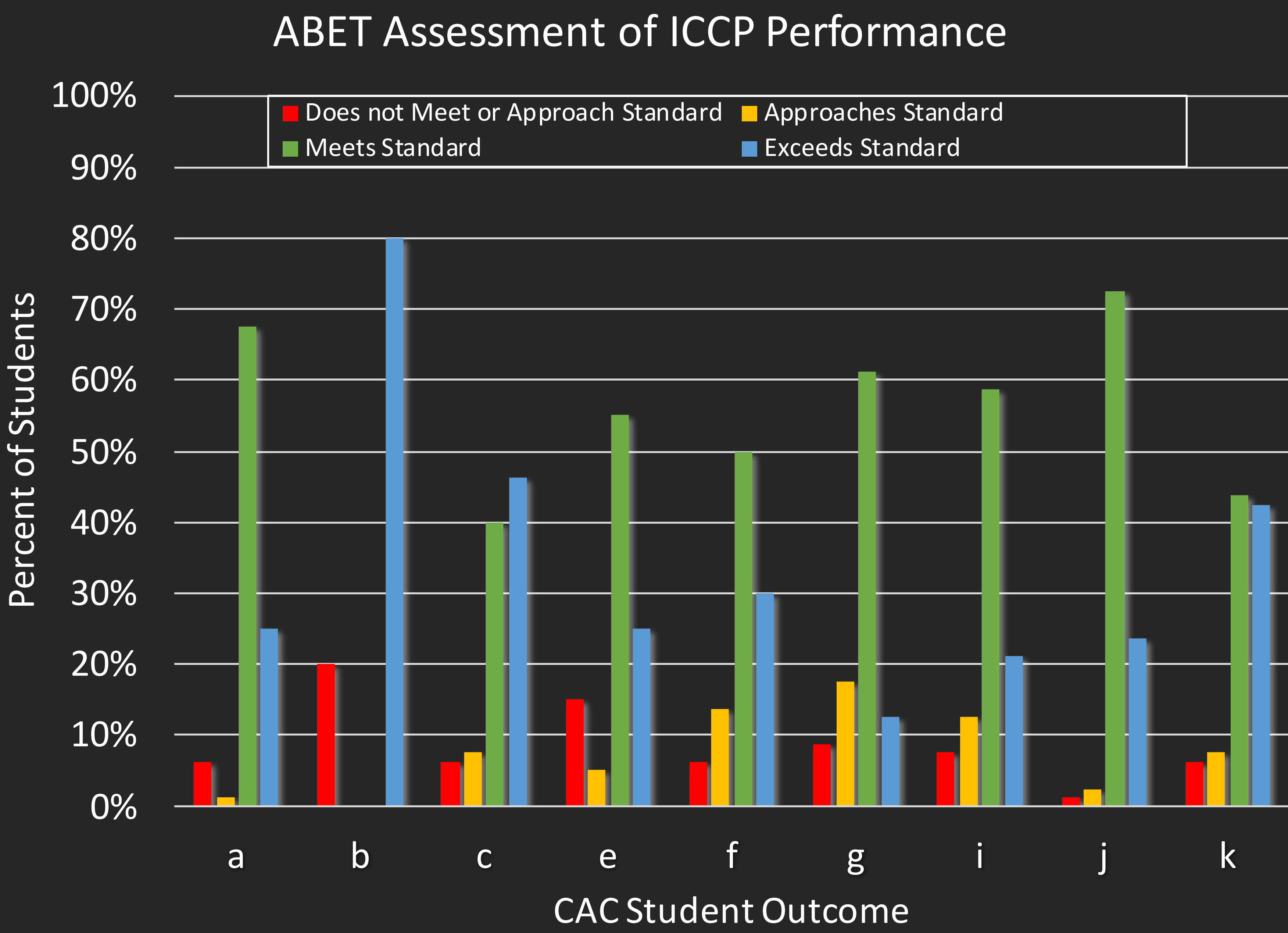
**BACKGROUND:**  
ABET states that a computer science program applying for accreditation “must have documented student outcomes that prepare graduates to attain the program educational objectives.”[1] When the people who create the assessment instruments are the same people who evaluate the results, however, we end up asking what can we really conclude from the results about what our students have learned [2]?

**METHODS:**  
The ICCP CS2013 exam was given to 80 volunteer students from the Senior Design course over two consecutive years. We used the individual results of the students to determine if they had approached, met, or exceed the particular SO.

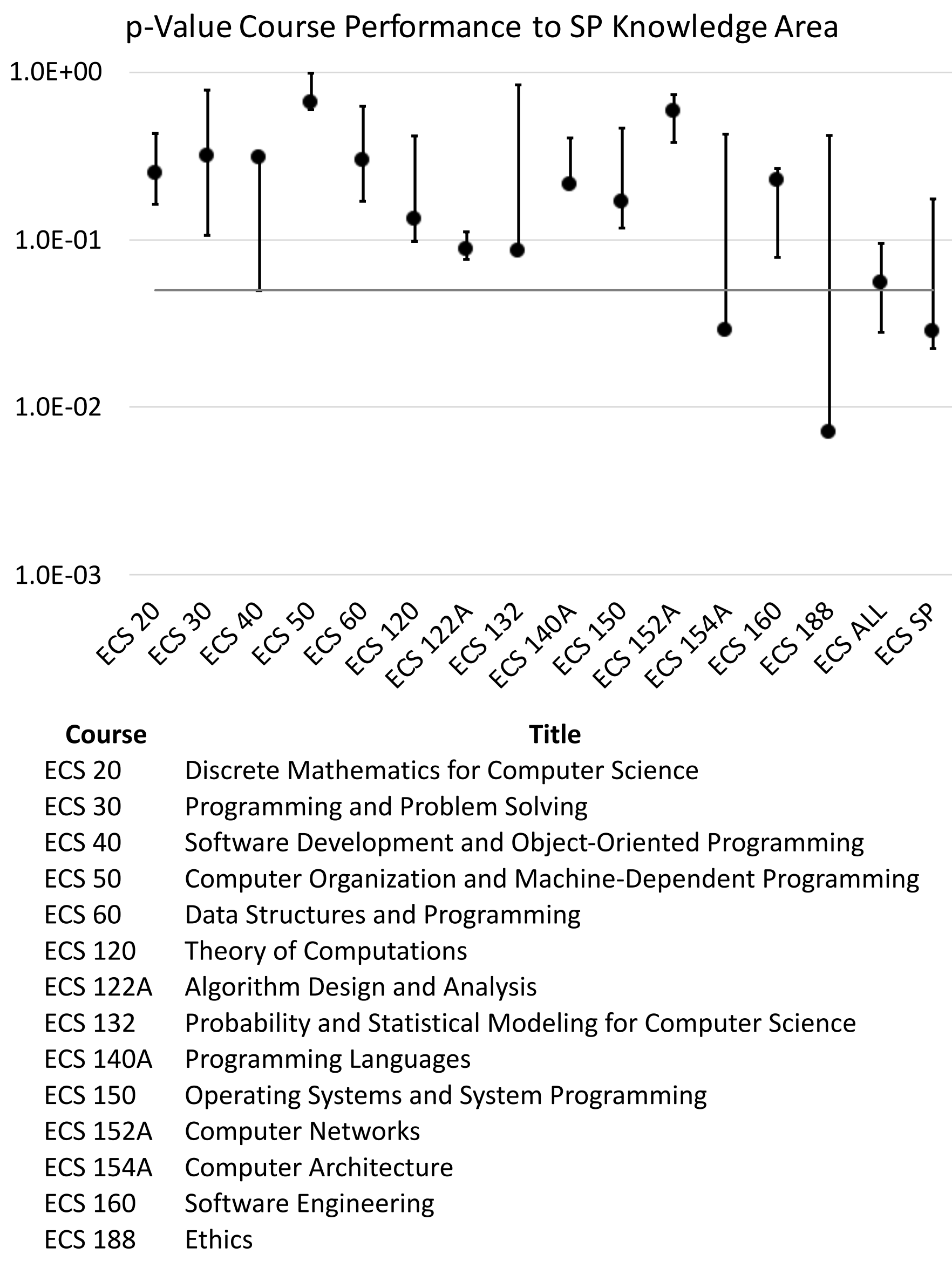
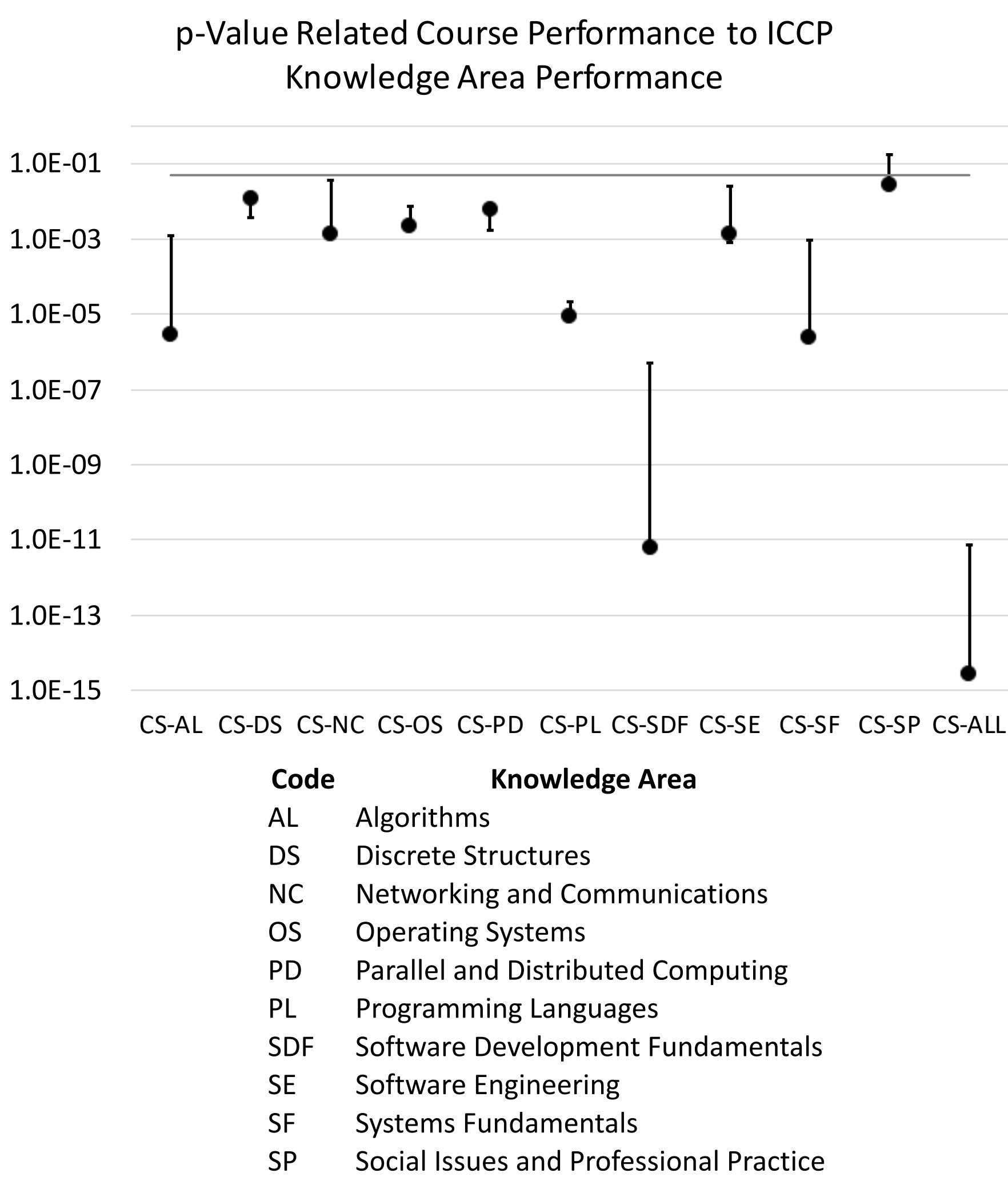
**RESULTS:**  
The standard was met or exceeded 86% of the time. Combining the exam results with the students’ prior course performance found high correlations between related course performance and exam knowledge area performance. The results indicate that the material covered in our courses aligns with that of the CS2013.

**CONCLUSIONS**  
This methodology allows for multiple SOs to be assessed with a single external examination. When combined with course performance it can highlight program issues.

# Collect data for multiple ABET Student Outcome Assessments with just one 3hr exam!



Take a picture to download the full paper



**ACKNOWLEDGEMENTS:**  
Thanks to the 80 student volunteers that took the CS2013 exam.

**REFERENCES:**  
[1] ABET, "Criteria for Accrediting Computing Programs, 2018-2019: General Criterion 3. Student Outcomes", Available at: <https://www.abet.org/accreditation/accreditation-criteria/criteria-for-accrediting-computing-programs-2018-2019/#GC3>  
[2] T. Linkletter, and J. Whitehouse, "How do we know our students have learned the BS outcomes?: an overview of assessment, accreditation, the model curricula, and certification --- in information systems and in computer science", Journal of Computing Sciences in Colleges, Volume 29 Issue 1, 96 – 97, October, 2013.