



2022-2023 CNUCOP ASSESSMENT REPORT



College of Pharmacy: Program Assessment Committee
CALIFORNIA NORTHSTATE UNIVERSITY COLLEGE OF PHARMACY
9700 West Taron Drive, Elk Grove, CA 95757

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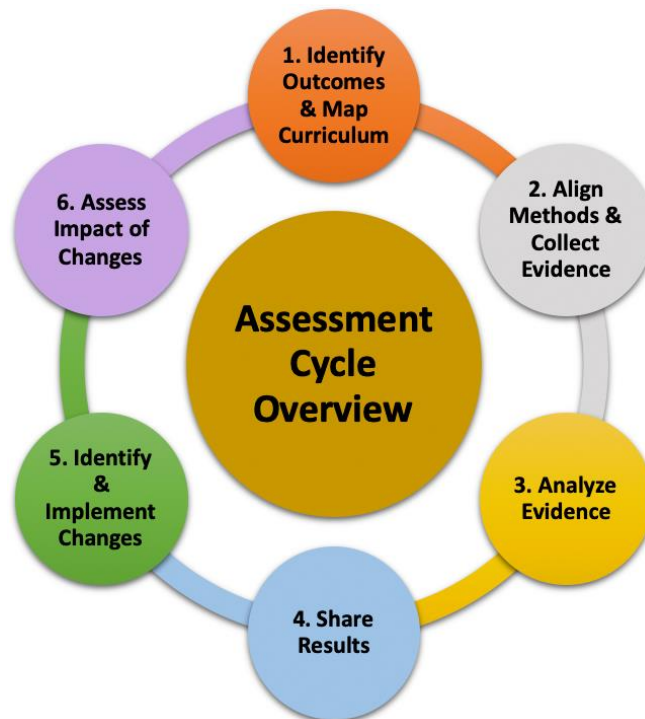
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I. Description of the college assessment process/processes

A. Purpose of Assessment Committee

- To develop and apply assessment methods to evaluate curricular and educational outcomes:
 - Exams
 - Competency-based assessments
 - Surveys
 - Peer/student evaluations
 - Other forms of assessment
- Analyze results of assessments and ensure that the results are disseminated to relevant stakeholders that are positioned to enact positive change within the College
- Gauge the effectiveness of the program and develop initiatives to improve the functions/processes of the college through evidence
- Ensure validity of the assessment methods



B. COP Assessment Committee General Objectives:

1. Update the Master Assessment Plan as necessary and work with relevant stakeholders to centralize the assessments and action plans that ensure the College meets ACPE 2016 Standards 24 and 25.
2. Provide action plan templates to relevant stakeholders.
3. Directly oversee the administration of the Milestone Exams, ensure the validity of the assessments, interpret the results of the Milestone Exams, and communicate the analyses to relevant stakeholders.
4. Optimize KPI assessments administered by the College and interpret the results of the KPIs. KPIs include the Milestone Exams, Preceptor Feedback, APPE Student Feedback, NAPLEX, signature assignments, the Internal Student Survey, the AACP Graduating Survey, and the Qualifying Exam series.
5. Oversee the student peer-review process using CATME or another suitable platform.
6. Analyze KPIs unless the responsibility is mandated to be executed by a different stakeholder.
7. Meet with the Curriculum Committee at least twice a year to jointly review the results of KPIs and develop action plans that address the results.
8. Compile an annual report of assessments, action plans, and modifications that were made to the assessment process

C. Assessment Plan

The assessment plan incorporates knowledge-based and performance-based formative and summative assessments throughout the didactic curriculum and the experiential education curriculum. The assessment plan measures student achievement at defined levels of the professional competencies that support attainment of the educational outcomes in aggregate and at the individual student level.

In the didactic pharmacy curriculum, knowledge-based formative assessments are conducted through incorporating active learning strategies, such as team-based learning (TBL) in didactic courses. Through the use of TBL, formative assessments are conducted during each class period to evaluate individual and team competencies. Immediate feedback is provided to both students and instructors on areas needing improvement related to the course material, which can be addressed directly and instantaneously. Mid-term exams and/or students' in-class and homework assignments also serve as an effective formative assessment tool for evaluation of students' competency during each subject course. Knowledge-based objective summative assessments in the form of block exams and final exams facilitated by Examsoft, along with other summative team assignments (final team exams, team projects and/or poster presentations) are also

incorporated for each course. These summative assessments serve to assess both individual and team competencies in achieving the course, program and institutional learning outcomes. In addition, comprehensive Milestone exams, in addition to other comparative and standardized assessments (discussed below) are administered throughout the pharmacy program and are designed to evaluate the summative retention of individual students' knowledge and to identify areas of strengths and areas for improvement in the curriculum.

Embedded within the didactic curriculum, longitudinal practicum courses, and IPE events, CNUCOP has developed comprehensive signature assignments aimed at evaluating students' ability to practically apply the skills that they have learned and to reflect upon their own strengths, weakness, and general learning experiences. Through these assignments, student readiness to enter APPEs and provide direct patient care is assessed through objective structured clinical examinations, SOAP notes, IPE exercises, patient cases incorporating areas related to calculations, compounding, patient counseling, literature evaluation, and professional and interprofessional communication. The assignments allow for a direct assessment of student performance on program learning outcomes, institutional learning outcomes, as well as Entrustable Professional Activities (EPA). Initially within the didactic curriculum these assignments are formative in nature, but they gradually increase in complexity and eventually develop into summative assignments. To evaluate student competency, rubrics are used to align performance in individual exercises to broader program learning outcomes.

Performance-based formative assessments for teamwork are also conducted in the didactic pharmacy curriculum through incorporating Comprehensive Assessment of Team Member Effectiveness (CATME) within the TBL methodology for students to evaluate team member performance in the middle and end of each semester. CATME provides both formative and summative assessment data on the performance of each team member as evaluated by their peers. CATME specifically collects student performance in five general areas: contribution to the team, interaction with teammates, ability to keep the team on track, expectation of quality, and possessing relevant knowledge, skills, and abilities. CATME results are monitored by both the assessment committee members and the director of assessment. These results help to identify students who are facing difficulty in performing their team tasks. Students with poor CATME formative evaluations are directed to the Office of Academic Affairs for further assistance. In the experiential education curriculum; performance-based formative and summative assessments are conducted during the IPPE and APPE rotations through mutual student-preceptor midpoint and final evaluations. These evaluations directly evaluate students' proficiency in achieving the course, program and institutional learning outcomes in addition to the corresponding EPA. Based on these aggregated performance-based assessments, reports are presented to the Experiential Education Department, Assessment Committee, and Curriculum Committee, as well as the Dean's Executive Committee to develop an action plan to improve the effectiveness of the experiential rotations and the curriculum overall.

D. Co-Curricular Assessment

In addition to curricular assessments, performance-based assessments are also incorporated through Co-Curricular (CoCuLO) activities. The co-curriculum is comprised of “activities that are connected to or mirror the academic curriculum” and provides opportunities for students to apply and further refine skills learned in the classroom by engaging in community service, leadership, and professional development experiences. The Co-Curricular Program also enables students to assess their skills and abilities through self-reflection essays and direct feedback. All co-curricular events will be divided into two different categories: 1). knowledge-based activities or events and 2). experience-based activities or events. Knowledge-based events augment classroom learning and provide students with the opportunity to learn more about a particular topic usually in a classroom environment (e.g. Professional Career Development Seminars). Experience-based events facilitate hands-on advanced learning and allow students to further apply concepts learned in the classroom (e.g. healthcare services provided in the community). To fulfill the Co-Curricular Learning Outcomes (CoCuLOs) of the program, each student is required to complete at least 8 different CoCuLO events and self-reflections corresponding to the six CoCuLOs by February 1st of the P3 year, with a minimum of 4 of these events being experience-based CoCuLO events. One activity or event from each CoCuLO category must be completed, along with two additional “elective” CoCuLO activities corresponding to two different CoCuLOs. Students are encouraged to complete the two additional “elective” CoCuLO activities with an experience-based activity/event that corresponds to a knowledge-based CoCuLO that was previously fulfilled or with an event or activity that the student had difficulty in fulfilling its corresponding CoCuLO based on their skillset and self/faculty evaluation. To remain on track for completing the co-curricular requirements by February 1st of the P3 year, each student should complete three CoCuLO events/activities and corresponding self-reflections each year, with the exception of the P3 year, during which two CoCuLOs is required. No more than three events in a given year will count towards fulfilling the CoCuLO requirements of the program. Each activity or event can only fulfill one co-curricular learning outcome. In order to fulfill a CoCuLO, upon completion of a co-curricular activity, the student must complete a self-reflection form. Each student’s faculty advisor will track and evaluate each advisee’s involvement in co-curricular learning activities and assess their advisees’ achievement of the CoCuLOs using a rubric located on CANVAS to score each self-reflection. If the faculty advisor feels the self-reflection does not appropriately respond to the prompt provided on CANVAS for that particular CoCuLO, then the faculty advisor can request that the student edit and resubmit their self-reflection to appropriately address the prompt. Each student is expected to meet with his or her faculty advisor at least once per semester, which provides an opportunity for students to discuss their participation and self-development in co-curricular activities. Annually the Assessment Office compiles data based on the advisor grading of self-reflection essays and develops a comprehensive report of student completion and performance of CoCuLO requirements.

E. Standardized and Comparative Assessment

Qualifying exam series evaluation exams are administered at the school while questions are primarily developed by third party contracting company (Pass NAPLEX Now). The College assesses the results and uses the students’ proficiency levels to identify areas of knowledge that require

improvement. Pass NAPLEX Now tailors the subsequent course for NAPLEX and CPJE preparation. Student performance of NAPLEX and CPJE exams are monitored and compared to state and national pass rates by the Dean's Executive Committee as well as both the Assessment and Curriculum Committees for overall evaluation of the program effectiveness.

The assessment plan employs several approaches to assessing student proficiency of learning outcomes. The comprehensive Milestone exams are administered in the summer after the academic year for both the first- and second-year pharmacy students and are designed to evaluate the summative retention of individual student's knowledge. The Milestone Examination is meant to deliver a standardized assessment of the key topics taught in the P1 and P2 year. Since there is a two-month gap between the final examinations and the Milestone Exam, retention of what was taught during the academic year is an important aspect of the Milestone, providing students insight on their level of readiness for the P2 and P3 year, respectively. In addition to the value of gaining better awareness of one's strengths and weaknesses, top-10 performers in the class will receive the Milestone Scholar Award. At the same time the mid-summer administration of the exam provides us with sufficient time for students to retake the exam, if needed as a result of failing to pass the Milestone. The P1 Milestone examination consists of two components: a calculations component made up of about 40 questions and a component assessing topics taught in other P1 courses. Courses with more credit hours will have a higher proportion of questions (approximately 2.5-3 questions per credit hour). The P2 Milestone examination consists of three components: an evidence-based medicine component made up of about 40 questions relating to biostatistics and drug information, a calculations component made up of also 40 questions, and a component assessing topics taught in other P2 courses. Courses with more credit hours will have a higher proportion of questions (approximately 2.5-3 questions per credit hour). To help students prepare for the examination Milestone Preparation Canvas page was developed, which contains preparation material for all of the components, including material specific to the didactic courses to be included in the course-related component.

Students that score below the passing threshold for a given Milestone Examination component will have the opportunity to retake the specific component the following week per the Milestone Examination schedule specified earlier in the current document. The Milestone Examination retake will be composed of questions from previous Milestone Examinations. Faculty will be asked to review the previous questions that were written for their course and to select optimal questions for the retake exam. Students that do not score above the passing threshold for a Milestone Examination component on the first or second attempt will be required to remediate the corresponding component. The remediation process should begin as early as possible after the second Milestone Examination attempt to minimize disruptions to the students' Fall Semester. Course coordinators will serve as remediation instructors for the corresponding topic areas in which students scored below 50% on both the first and second attempt. Moreover, the format of the remediation process, the length of study, and the subsequent assessment of student mastery of essential concepts will be at the discretion of the remediation instructors. The Director of Assessment will review the results of the Milestone Examinations and determine which students did not pass each component of the Milestone Examinations. The Director of Assessment will also present a report of the Milestone Examination results to relevant stakeholders, including the

Assessment Committee, Curriculum Committee, and Dean's Executive Council. The Assessment Committee and the Curriculum Committee will jointly develop an action plan for assessment or curriculum changes based on the results of the Milestone Examinations. The Assessment Committee and the Curriculum Committee will jointly review the previous year's action plan to reflect on the implementation of the proposed changes.

The standardized assessments described above, though varied in granularity and strength of association, are correlated to other assessments and students' individual attributes and subsequently used to identify reference points and develop thresholds.

As discussed above signature assignments are essential in assessing students' proficiency in key learning outcomes through performance-based evaluations. Integral to experiential education, students are evaluated by their preceptors during introductory pharmacy practice experiences using assessments designed to measure outcomes related to student readiness to enter advanced pharmacy experiences. An analogous assessment process occurs during the advanced pharmacy practice experiences with the exception that proficiency of outcomes are expected to be achieved at a mastered level indicating professional competency of a highly qualified pharmacist.

Multiple avenues are pursued to ensure that data generated from various forms of assessment are used to modify and improve the curriculum, bolster student learning, and advance the overall program. For example, a comprehensive learning outcome assessment is conducted annually for each course, where the results of the assessment are required to be integrated into an annual action plan that details practical and achievable modifications to the course, which will improve student mastery of relevant topic areas. In addition to objective assessments facilitated by Examsoft, students are asked to take subjective surveys of each course to identify areas where student learning may be enhanced. Course coordinators must address how student feedback will be used to improve their courses in the annual action plans. On a broader level, the Assessment Committee conducts aggregated assessments of student performance in IPPEs, APPEs, and clinical exercises conducted throughout the program to assess mastery of Educational Outcomes. The results of the aggregated assessments are discussed jointly with the Curriculum and Assessment Committees to identify areas of the curriculum that may be improved to optimize student learning and competency in the clinic.

Student performance on NAPLEX and CPJE exams are monitored and compared to State and National pass rates. The Dean's executive committee as well as both the assessment and curriculum committee employ these results for overall evaluation of the program effectiveness. An action plan is subsequently created and implementing based on these results on an annual basis. The implementation and the effectiveness of initiatives detailed within the previous year's action plan are explicitly evaluated in subsequent action plans. A similar process is employed by the curriculum committee in developing, implementing, and following-up on action plans based on the results of the Milestone exams, reports based on student performance of program and learning outcomes assessed during the summative exams and signature assignments. Likewise, the experiential department evaluates reports demonstrating student achievement of learning outcomes within experiential education and creates an action plan based on these reports.

F. Surveys

On an annual basis the Office of Academic Affairs serves as the liaison ensuring that the AACP Alumni Survey, the AACP Graduating Student Survey, AACP Preceptor Evaluation of Experiential Program Survey, and AACP Faculty Survey are conducted, results are analyzed and subsequently presented to the Dean's Executive Committee. Applicable administrative offices are then charged to develop and implement an action plan addressing the result of the AACP standardized surveys.

The college uses multiple methods to systematically assess and comprehensively understand the overall student experience at the college and subsequently identify and address student concerns. These includes convening regular town hall meetings, focus groups, and administration of external AACP surveys of P4 students as well as internal surveys of all students (P1s through P3s). In order, to improve the value of internal survey through an increase of the response rate and enhancement of the applicability of survey questions the Assessment Committee along with the Office of Assessment at the College of Pharmacy have worked together with the Office of Institutional Effectiveness at the university level to further develop & enhance the students' survey development, implementation & oversight process. The results of the report are analyzed by the Office of Assessment and presented to the Assessment Committee which includes the student members of the committee for further input in terms of additional approaches of assessment and interpretation.

The result of the AACP Graduating Student Survey is analyzed by the Office of Assessment. The analysis includes identifying trends based on the result of the past four years and determining if the data represents a general upward and downward trend based on correlation coefficients. In addition, the results are compared to several different cohorts of peer schools, with an increasing level of similarity to our institution though a smaller sample size. The defining characteristics of these cohorts includes all schools of pharmacy in the nation, all private schools of pharmacy, all schools of pharmacy within the State of California, and all private schools of pharmacy established in within the last 15 years. Questions for which the results of CNU students demonstrate a significantly lower or higher relative to the peer institutions are identified and highlighted in the analysis. The results of other questions deemed especially crucial to understanding the student experience at the college as well as those previously remarked upon by ACPE accreditors are also emphasized when reporting the results. The action plan development process is analogous to that of internal student surveys where by results of the report are presented to the Assessment Committee for further input in terms of additional approaches of assessment and interpretation. Subsequently the resulting analysis and interpretation is directed to predetermined administrative offices overseeing relevant areas of interest within the survey and are requested to produce a pragmatic action plan addressing any issues and concerns identified. The final report along with the action plan is subsequently presented to all of the relevant stakeholders including the Dean's executive Council & the College of Pharmacy Faculty body for final evaluation and review before being communicated to the with the students and subsequently implemented. As with all action plans of assessments included with the Master Assessment Plan, the action plans both the AACP surveys and internal surveys are developed using standardized action plans process, which along with the usual description of how the college is planning to address a specific issue identified

within the survey also requires a brief description of any changes to the process being evaluated, including initiatives described in the action of plan of the previous year, novel initiatives not mentioned in the previous action, and modifications to the assessment process itself. The rationale of this process is to allow for a better understanding of possible causes behind fluctuations in the data, identification of trends, and the effectiveness of implemented changes. In addition, the use of these standardized action plans enhances the follow-up process by ensuring that that the effects of previous years action plans are addressed.

G. Assessment of Organizational Effectiveness

The CNUCOP assessment plan maintains the most relevant assessments to provide insight on the effectiveness of the college processes and initiatives explicitly in the area of admissions, student services, faculty productivity and satisfaction, curriculum including the both didactic and experiential curriculum, and other processes related to academic affairs and standardized testing.

Standardized action plans are used for key assessments and include a brief description of any changes to the process being evaluated, including initiatives described in the Action Plan of the previous year, novel initiatives not mentioned in the previous Action Plan, and modifications to the assessment process itself. These standardized action plans allow for a better understanding of possible causes behind fluctuations in the data, identification of trends, and the effectiveness of implemented changes. In addition, the use of these standardized Action Plans enhances the follow-up process by ensuring that the effects of previous years' Action Plans are addressed.

Annually, pertinent assessments and corresponding action plans are compiled in comprehensive reports and submitted to the Office of Institutional Effectiveness and the President's Executive Committee to provide broader University wide understanding of the functions and effectiveness of the College.

The assessment plan includes a correlation analysis based on a variety of data gathered within the assessment plan to identify predictive variables that can subsequently be incorporated into initiatives that could affect both discrete and more global outcomes.

H. Curriculum Assessment and Improvement

One of the primary responsibilities of the Assessment Committee is to work in conjunction with the Curriculum Committee to ensure that the most constructive assessment data is used to develop action plans to improve the curriculum and its delivery. One of the approaches by which this is accomplished is through consistent communication between the two committees. This is achieved by designating at least one faculty member to serve as a voting member for both of the committees. This faculty member functions as a liaison and regularly provides updates on the issues being addressed in each of the committees and communicates any inquiries the committees may have with each other.

In addition, twice per year, a joint meeting of the Curriculum Committee and the Assessment Committee is held.. During this meeting, the joint committees review various reports compiled by the Assessment Committee to evaluate the curriculum of the college and develop action plans based on these results leading to positive changes to the curriculum and modifications to the assessments themselves in order to improve their validity and utility. The reports presented during the joint meeting include PLO/ILO reports based on student performance of signature assignments administered during the didactic curriculum as well as reports based on summative preceptor evaluations of students completing APPE rotations.

In addition, other reports evaluated to assess the effectiveness of the overall program include the results of the two Milestone exams, Qualifying exam reports, and pass rates for NAPLEX and CPJE exams.

I. Master Assessment Plan

Assessment	Instrument Used/ Administrator/Deadline	Action Plan Responsibility	Action Plan Reporting and Implementation Deadline
College			
Evaluation of Mission, Vision, and Goals	Rubric utilized to assess and evidence collected by Office of Assessment during faculty retreat or workshop in June/July	Carried out by the Dean	January
College Strategic Plan	Strategic Plan with rubrics headed by Center of Excellence for Teaching and Learning	Not Applicable: Strategic Plan Updated Annually in the Summer During Faculty Retreat	Not Applicable
Student Affairs: Admissions			
Interview Survey (Interview Day Experience)	Results from the survey reported by Office of Admissions by end of August, annually, for Admissions Cycle just ended.	Admissions Office and Admissions Committee. Admission office plan report and presents 10 min in the Sep faculty meeting	Completed by December and implemented by August
Analysis of Applicant Pool	Information from PharmCAS to be retrieved by Office of Student Affairs and Admissions by end of October, annually.	Admissions Office to use for recruitment	Completed by December and implemented by August
Demographics of Entering Class	Information from PharmCAS to be retrieved by Office of Student Affairs and Admissions by end of October, annually.	Admissions Office to use for recruitment	Completed by December and implemented by August
Enrollment Decision Survey (Post Candidate Interview Survey)	Results from the survey reported by Office of Admissions by beginning of September, annually, for Admissions Cycle just ended.	Admissions Office to use for recruitment	Completed by December and implemented by August
Student Affairs: Students Services			
Success of Tutoring on Student Achievement	Report based on an internal survey and other data reported by Office of Student Affairs in conjunction with office of Academic Affairs by end of July, annually.	Office of Student Affairs (in collaboration with Academic Affairs Office)	Completed by May and implemented by September
AACP Alumni Survey	Results from AACP survey reported by the COP by Office of Student Affairs and Admissions, in July annually	Office of Student Affairs (in collaboration with Academic Affairs Office)	Completed by May and implemented by September
AACP Student Survey – Graduating Student Survey	Results from AACP survey reported by the COP by Office of Student Affairs and Admissions, in July annually.	Office of Student Affairs and Office of Academic Affairs identify useful data to be communicated to Curriculum Committee and other Departments	Completed by May and implemented by September
COP Graduating Exit Survey	Results from an internal survey reported by the COP the end of June, annually.	Office of Student Affairs and Office of Academic Affairs identify useful data to be communicated to Curriculum Committee and other Departments	Completed by May and implemented by September
Co-curricular Learning Outcomes	CANVAS results retrieved by Office of Student Affairs in July, annually	Office of Student Affairs identifies useful data to be communicated to Curriculum Committee and other departments	Completed by July and implemented by August

Post-graduate Employment	Post-Graduate employment survey administered by Office of Student Affairs in June, annually	Office of Student Affairs	Completed by July and implemented by August
Faculty and Staff Development			
Student Evaluation of Course & Instructor	Survey completed using Survey Monkey, Administered by Department Administrative Assistant near the completion of every semester	Not Applicable: Student evaluation of instructor to be addressed by faculty's department chair during annual review and student evaluation of course is to be addressed unique action plans for every course developed by each individual course coordinators	Action plans for individual courses due in October and March submitted along with corresponding syllabi
Faculty Development Trainings and Seminars	List and description of trainings and seminars offered by the Center of Teaching Excellence, Office of Research, and CNU Faculty Development Office completed at the end of the academic years	Chair of the Faculty Development Committee	Not Applicable
Faculty Development Survey	Survey monkey survey developed by Faculty Development Committee and administered to all CNUCOP faculty by the Director of Assessment in December annually	Faculty Development Committee	Completed in March to be implemented in May
AACP Faculty Survey	Results from survey submitted by the COP through the office of Academic Affairs by July, annually.	Dean Executive Committee	Completed in December to be implemented in January
Research	Results from Office of Research on Grants/Contracts, Publications, Presentations, Seed Grants, Summer Fellowships	Assistant Dean Of Research	Completed in July to be implemented in August
Academic Affairs: Didactic Curriculum			
Inter-professional Education	End of the year IPE report by Director of IPE in June	IPE Director	Completed in July to be implemented in August
Course Learning Outcomes Report	Results from ExamSoft Reports by Office of Assessments every December and June	Not Applicable: Unique action plans for every course to be developed by each individual course coordinators	October and March submitted along with corresponding syllabi
Program Learning Outcome Based on Signature Assignments	Results from ExamSoft Reports by Assessment Committee annually every May	Curriculum Committee	Completed by July and implemented by December
Learning Outcomes Norming Session Report	Results from ExamSoft based on the norming by Assessment Committee annually every March	Director of Assessment	Completed by July and implemented by December
CATME	CATME evaluations of teammates completed by all students in the P1-P3 year and administered by Chair of Assessment Committee at the midpoint and end of each semester	Not Applicable	Not Applicable
Academic Affairs: Experiential Curriculum			
Student Evaluation of the Sites	Anonymous evaluation of the practice site administered the experiential department after every 6-week rotation OR Mutual student-preceptor midpoint and final evaluation	APPE/IPPE Director	Action plan to be implemented June through May (P4 year)

Learning Outcome Summative Report	Data of student performance of APPE and IPPE derived from E-value/Core exported and evaluated in June, annually	APPE/IPPE Director	Completed by July and implemented by December
AACP Preceptor Survey	Results from an AACP survey submitted by experiential department by July, annually.	Chair of Experiential Department	Completed by July and implemented by December
Academic Affairs: General Student Performance			
Progression Report	Data derived from Office of Academic Affairs, developed annually every June	Dean of Academic Affairs	Completed by July and implemented by August
Correlation Analysis	Data derived from various sources including examsoft, NABP, PharmCAS, E-value/Core, Canvas analyzed annually by December	Curriculum Committee	Completed by June and implemented by August
Grade Distribution Reports	Grades retrieved from CANVAS before and after application of Team Grades	Dean of Academic Affairs	Not Applicable
Academic Affairs: High Stakes Exams			
P1 and P2 Milestone Results	Report based on ExamSoft data produced by the Director of Assessment on a annual basis in June after the completion of the Milestone Exams in May	Curriculum Committee	Completed by July and implemented by December
Qualifying Exam Series	ExamSoft Report	Designated NAPLEX Review coordinator	Completed by July and implemented by December
Pass Rate on NAPLEX & CPJE	Results are provided by NABP and California Board of Pharmacy (including performance in the 2 areas) of NAPLEX and CPJE results respectively	Dean of Academic Affairs	Completed by August and implemented by September

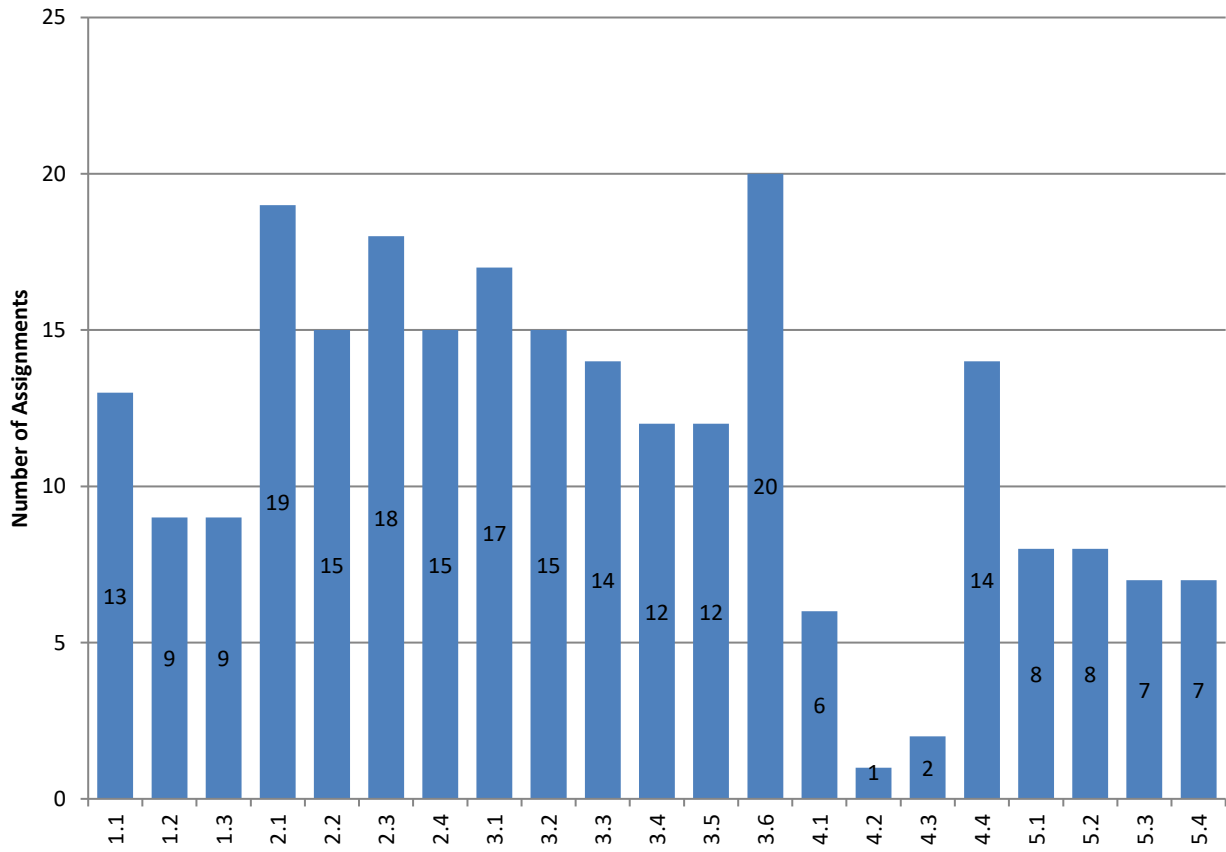
II. Program Learning Outcomes Assessment

A. PLO Report based on Signature Assignments

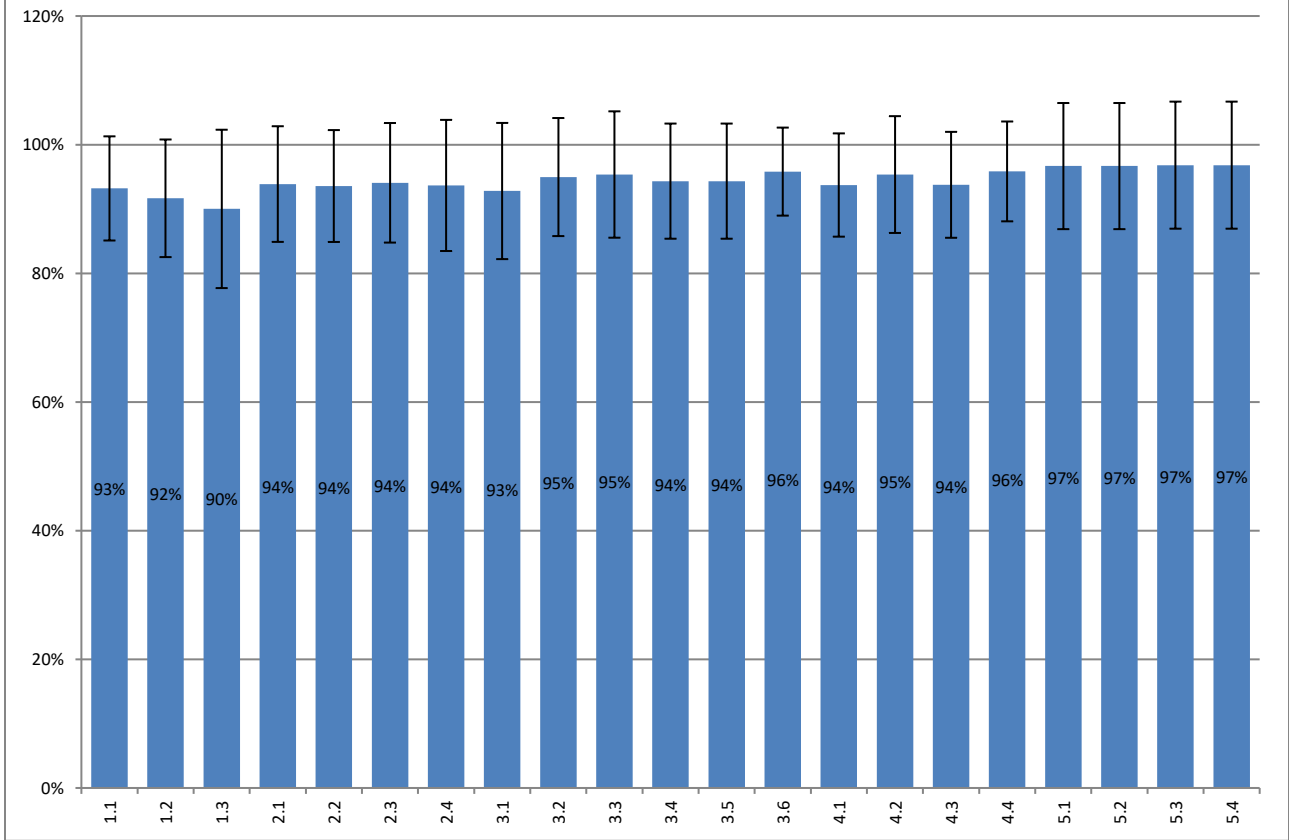
	CAS 606	PRC 610	PRC 610	PRC 709	PRC 709	PRC 710	PRC 710	PRC 710	PRC 710	PRC 710	PRC 710	PRC 710	PRC 809
	Individual Data Analysis Assignment	APPS Lab Final Assessment	Patient Counseling Final Assessment	Naloxone Patient Counseling Assessment	IV Lab Assessment	Integrated Case	IPE Team Self-Reflection	Patient Counseling	Verbal Case Presentation	APPS Lab	IV lab	Lit Eval and JC	APPS Lab Assessment
MEAN	91%	84%	94%	93%	91%	66%	95%	96%	90%	92%	94%	97%	93%
Standard Deviation	12%	9%	6%	5%	14%	14%	15%	3%	8%	9%	3%	13%	13%
MEDIAN	95%	85%	97%	93%	94%	65%	100%	97%	90%	95%	95%	100%	95%
MIN	47%	70%	75%	82%	0%	35%	0%	86%	70%	53%	85%	0%	0%
MAX	100%	100%	100%	100%	98%	100%	100%	100%	100%	100%	98%	100%	98%
25th Percentile	90%	78%	91%	89%	91%	55%	100%	95%	85%	91%	93%	98%	95%
75th Percentile	99%	91%	100%	96%	97%	79%	100%	99%	95%	97%	97%	100%	98%
Initial: <69%	3	0	0	0	2	39	2	0	0	3	0	1	1
% Initial	6%	0%	0%	0%	4%	63%	3%	0%	0%	5%	0%	2%	1%
Developing or better : at or above 69%	46	52	52	27	53	23	59	62	62	59	61	62	73
% Developing or better	94%	100%	100%	100%	96%	37%	97%	100%	100%	95%	100%	98%	99%
Developing only: 69%-79.999%	5	18	2	0	1	7	0	0	4	2	0	0	4
% Developing	10%	35%	4%	0%	2%	11%	0%	0%	6%	3%	0%	0%	5%
Developed or better: at or above 79%	41	34	50	27	52	16	59	62	58	57	61	62	69
% Developed or better	84%	65%	96%	100%	95%	26%	97%	100%	94%	92%	100%	98%	93%
Developed only: 79%-89.999%	4	20	10	10	9	11	6	1	16	10	6	0	7
% Developed	8%	38%	19%	37%	16%	18%	10%	2%	26%	16%	10%	0%	9%
Proficient: at or above 90%	37	14	40	17	43	5	53	61	42	47	55	62	62
% Proficient	76%	27%	77%	63%	78%	8%	87%	98%	68%	76%	90%	98%	84%

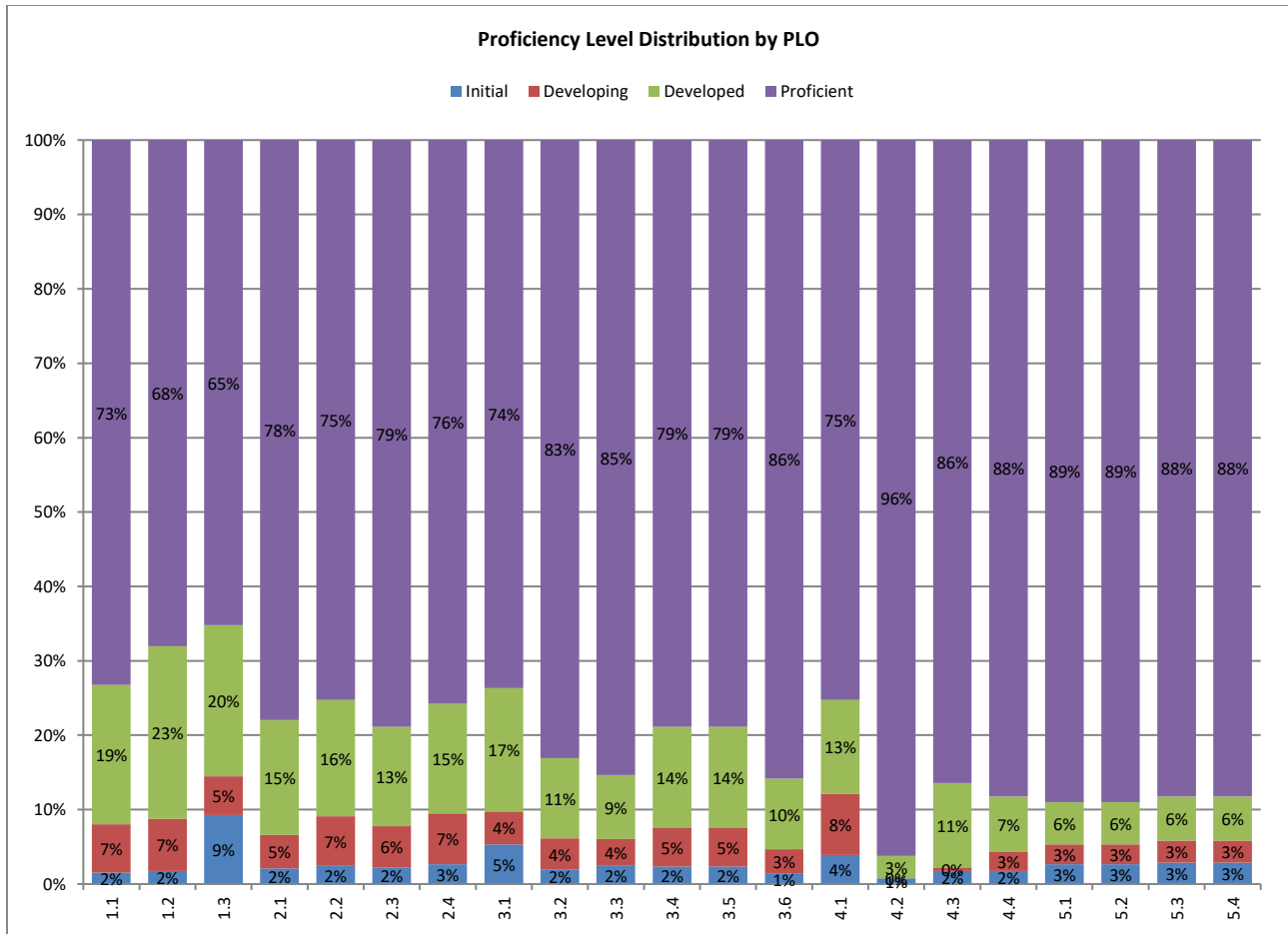
	CAS 801	CAS 804	PRC 809	PRC 809	PRC 809	PRC 809	PRC 809	PRC 810	PRC 810	PRC 810	PRC 810	PRC 810	PRC 810	PRC 810
	Individual Essay	CAPSTONE Individual Project -Critical Thinking and Reflection Paper	APPS Lab Assessment	Integrated Case	Individual Lit Eval Report	Patient Counseling Evaluation	Verbal Case Presentation	Verbal Case Presentation on Current Score	Individual Journal Presentation	Integrated Case	Patient Counseling	Comprehensive Medication Management	IV Lab	APPS Lab
MEAN	89%	97%	93%	80%	89%	94%	90%	92%	99%	88%	96%	92%	90%	78%
Standard Deviation	26%	12%	13%	16%	3%	13%	7%	6%	1%	8%	4%	12%	11%	16%
MEDIAN	98%	100%	95%	85%	90%	97%	91%	93%	98%	90%	97%	94%	92%	78%
MIN	0%	0%	0%	0%	74%	0%	70%	71%	97%	70%	84%	0%	0%	0%
MAX	100%	100%	98%	100%	92%	100%	100%	100%	100%	100%	100%	100%	96%	100%
25th Percentile	93%	96%	95%	75%	88%	94%	86%	90%	98%	80%	95%	92%	90%	70%
75th Percentile	100%	100%	98%	90%	92%	99%	95%	96%	100%	95%	99%	97%	93%	90%
Initial: <69%	7	1	1	11	0	1	0	0	0	0	0	1	1	15
% Initial	8%	1%	1%	15%	0%	1%	0%	0%	0%	0%	0%	1%	1%	20%
Developing or better : at or above 69%	77	76	73	63	74	72	74	75	75	75	75	74	74	60
% Developing or better	92%	99%	99%	85%	100%	99%	100%	100%	100%	100%	100%	99%	99%	80%
Developing only: 69%-79.999%	2	0	4	13	1	4	8	4	0	7	0	2	0	26
% Developing	2%	0%	5%	18%	1%	5%	11%	5%	0%	9%	0%	3%	0%	35%
Developed or better: at or above 79%	75	76	69	50	73	68	66	71	75	68	75	72	74	34
% Developed or better	89%	99%	93%	68%	99%	93%	89%	95%	100%	91%	100%	96%	99%	45%
Developed only: 79%-89.999%	8	1	7	21	26	6	25	14	0	29	10	8	16	14
% Developed	10%	1%	9%	28%	35%	8%	34%	19%	0%	39%	13%	11%	21%	19%
Proficient: at or above 90%	67	75	62	29	47	62	41	57	75	39	65	64	58	20
% Proficient	80%	97%	84%	39%	64%	85%	55%	76%	100%	52%	87%	85%	77%	27%

Number of Assignments Assessing the Program Learning Outcome



Mean Score by PLO
(with error bars representing standard deviation)





B. APPE Report

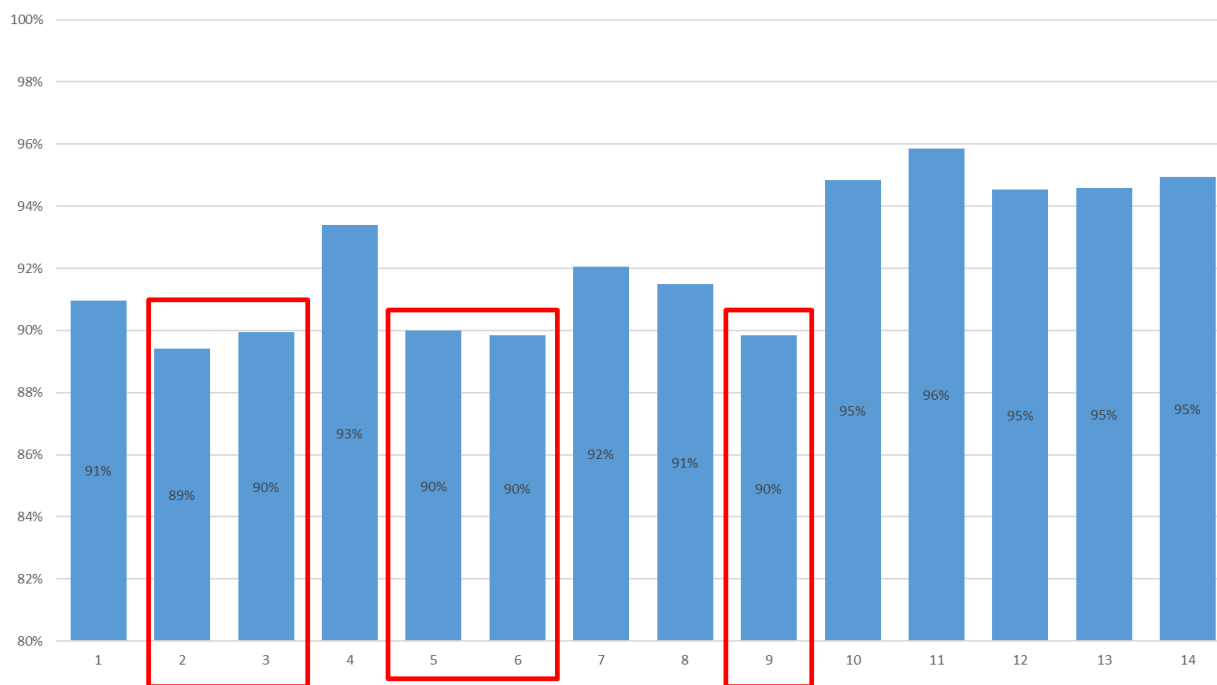
Brief Analysis: In all four rotations students performed well based on all of the criteria preceptors based their evaluations on and the corresponding program learning outcomes based on the said criteria. The only area of slight weakness were questions 2,6, and 9 in the general medicine rotations. Twelve percent of students were deemed developing on question 2 (Demonstrate appropriate depth and breadth of pharmacotherapeutics and disease-related knowledge for common conditions in adult inpatient general medicine patients) . Student is able to apply pharmacotherapeutic knowledge to the disease states commonly encountered in the acute care setting. Twelve percent of students were also deemed developing on Questions 6 (Student is able to efficiently and effectively develop an individualized patient-centered health plan in collaboration with other health care professionals and the patient/caregiver that is evidence-based and cost-effective.) Ten percent of students were also deemed developing on Questions 9 (Apply evidence-based medicine and information mastery principles in patient care activities.

Student recommends patient-specific therapies backed by direct evidence that, on average, lengthens life, decreases symptoms, and/or improves life quality.) These led to 12% of students deemed developing in PLO 5.4 (Teamwork).

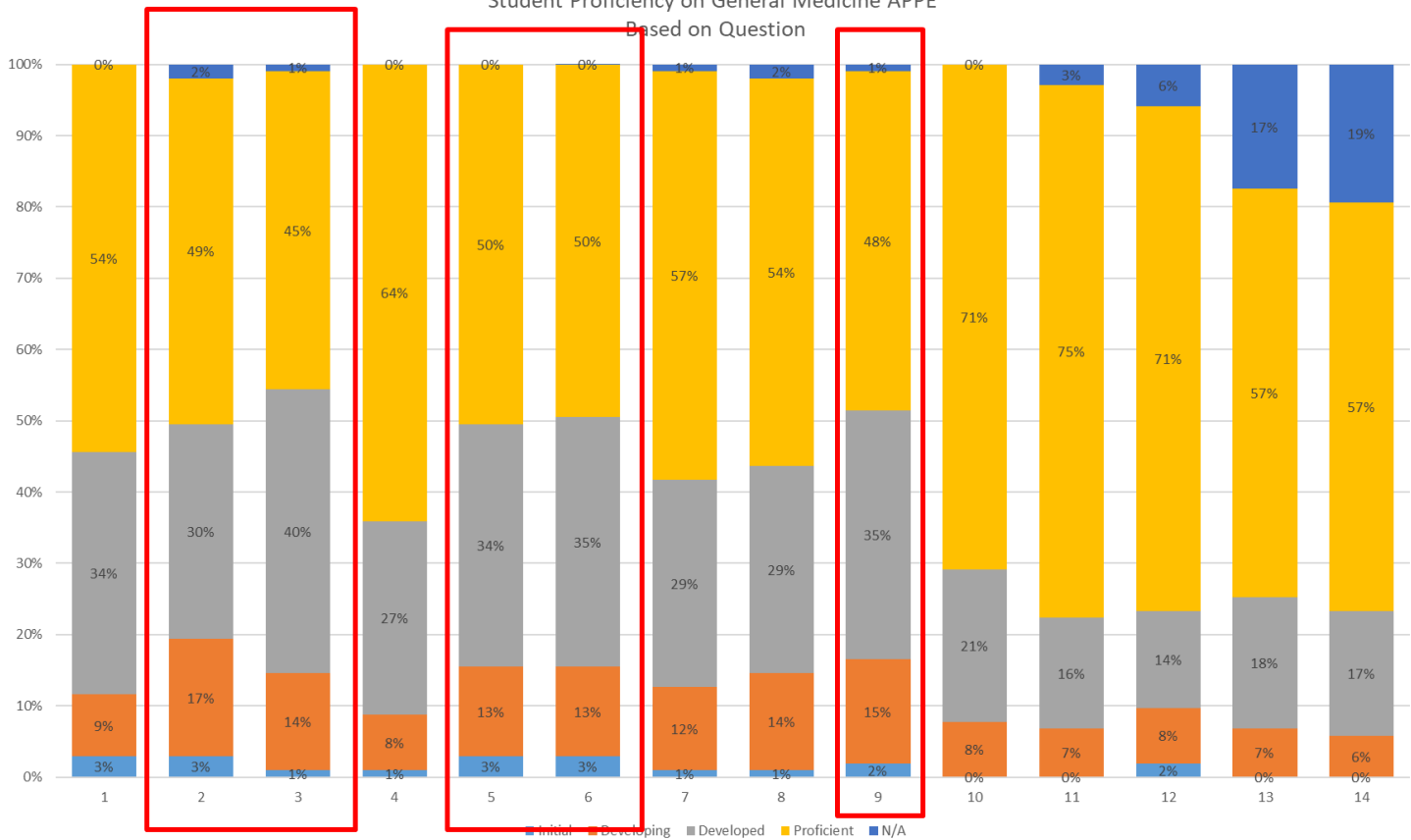
Proficiency Level	Proficiency Values
Proficient	100
Developed	85
Developing	75
Initial	40

1. General Medicine

Average Score (%) on General Medicine APPE
Based on Question

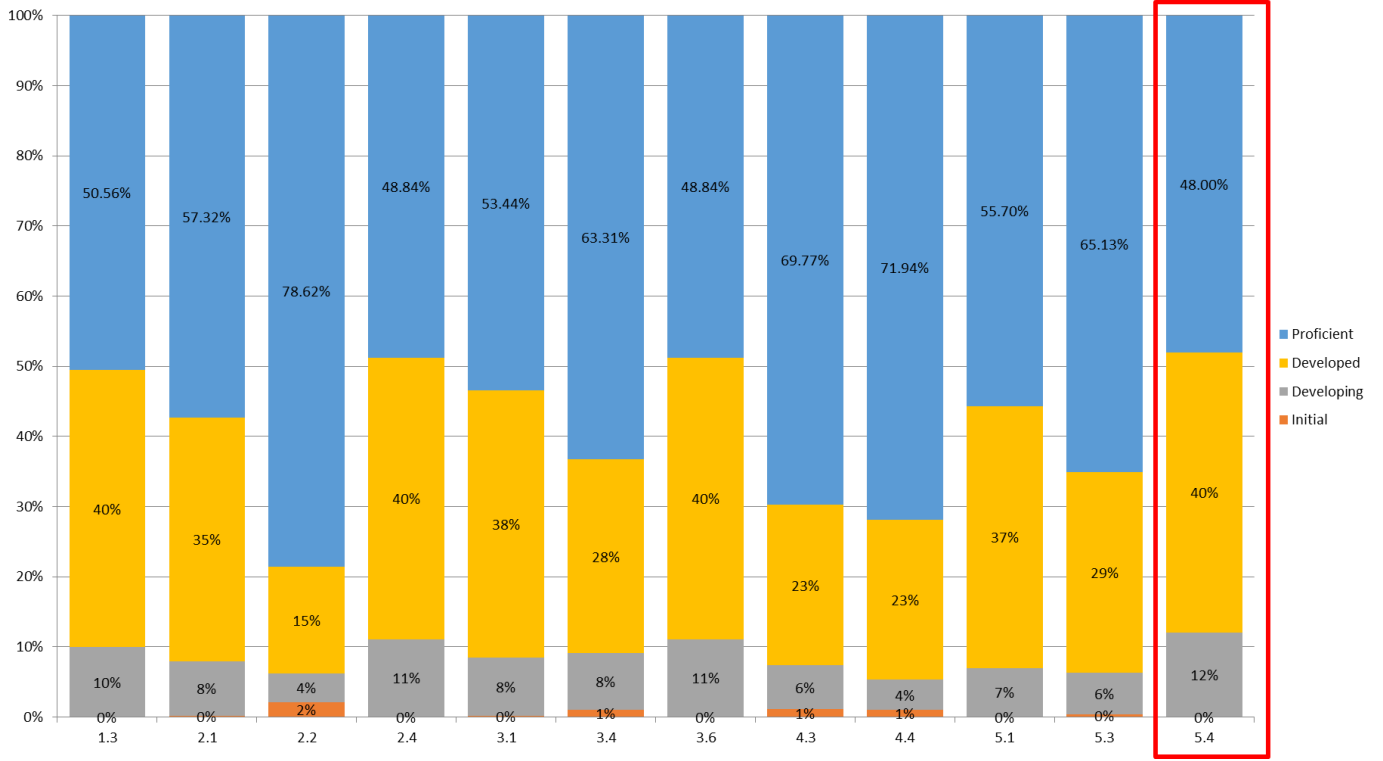


Student Proficiency on General Medicine APPE
Based on Question

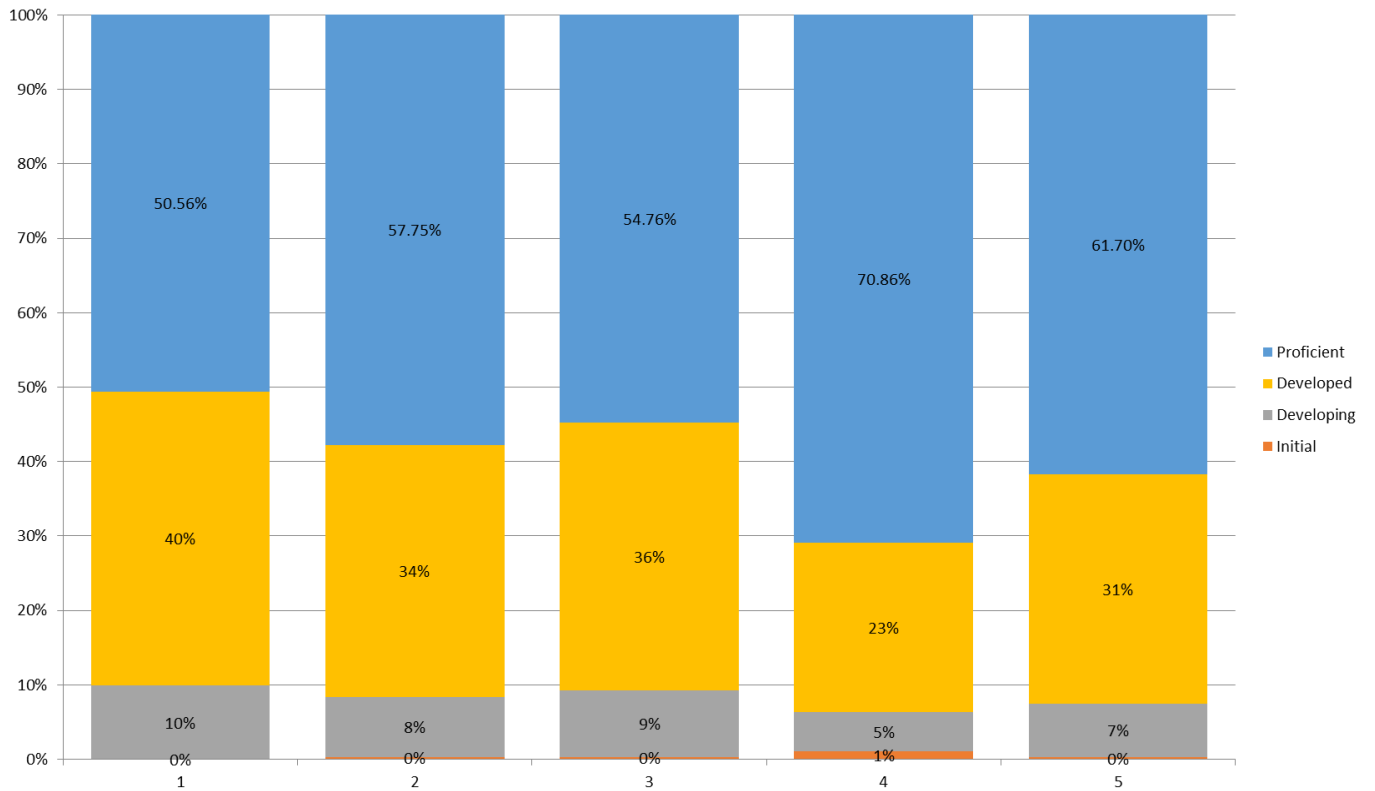


#	Question
1	Student is able to select the proper drug, dose, route and schedule given a patient's medical history, medical condition, culture and personal preferences.
2	Student is able to apply pharmacotherapeutic knowledge to the disease states commonly encountered in the acute care setting.
3	Student able to effectively address adverse drug reactions and drug misadventures when they arise.
4	Student is able to efficiently and effectively collect subjective and objective information including medication history, health data and lifestyle in order to understand the clinical status of the patient.
5	Student is able to efficiently and effectively assess the collected information and analyze the clinical effects of the patient's therapy in contact of the patients' overall health goals.
6	Student is able to efficiently and effectively develop an individualized patient-centered health plan in collaboration with other health care professionals and the patient/caregiver that is evidence-based and cost-effective
7	Student efficiently and effectively implements the care plan in collaboration with other healthcare professionals and patient/caregiver.
8	Student efficiently and effectively monitors and evaluates the effectiveness of the care plan and modifies the plan as necessary in collaboration with other health care professionals and the patient/caregiver.
9	Student recommends patient-specific therapies backed by direct evidence that, on average, lengthens life, decreases symptoms, and/or improves life quality
10	Student uses appropriate grammar and syntax in constructing a clear, concise written record of his/her patient care activities
11	Student follows health system policies, procedures and guidelines for documenting his/her patient care activities, including method of documentation, after receiving authorization and with any required co-signature.
12	Student is timely when submitting project idea, rough draft and completed project.
13	Student's project idea is original and/or the execution is creative.
14	Student's completed project will lead to improvement in healthcare cost, quality and/or patient satisfaction.

Proficiency Level Distribution by PLO



Proficiency Level Distribution by PLO



CNUCOP Program Learning Outcomes

PLO 1: Foundational Knowledge. Demonstrates the knowledge, skills, abilities, behaviors, and attitudes necessary to apply the foundational sciences to the provision of patient-centered care

- 1.1. Evaluation of scientific literature. Develops, integrates, and applies knowledge from the foundational sciences (i.e., biomedical, pharmaceutical, social/behavioral/administrative, and clinical sciences) to evaluate the scientific literature
- 1.2. Explanation of drug action. Develops, integrates, and applies knowledge from the foundational sciences (i.e., biomedical, pharmaceutical, social/behavioral/administrative, and clinical sciences) to explain drug action
- 1.3. Advancement of population health. Develops, integrates, and applies knowledge from the foundational sciences (i.e., biomedical, pharmaceutical, social/behavioral/administrative, and clinical sciences) to advance population health and patient-centered care

PLO 2: Essentials for Practice and Care. Demonstrates the knowledge, skills, abilities, behaviors, and attitudes necessary to provide patient-centered care, manage medication use systems, promote health and wellness, and describe the influence of population-based care on patient-centered care

- 2.1. Patient-centered care. Demonstrates ability to provide patient-centered care as the medication expert (collect and interpret evidence, prioritize, formulate assessments and recommendations, implement, monitor and adjust plans, and document activities)
- 2.2. Medication use and systems management. Demonstrates ability to manage patient healthcare needs using human, financial, technological, and physical resources to optimize the safety and efficacy of medication use systems
- 2.3. Health and wellness. Designs prevention, intervention, and educational strategies for individuals and communities to manage chronic disease and improve health and wellness
- 2.4. Population-based care. Demonstrates understanding of how population-based care influences patient-centered care and the development of practice guidelines and evidence-based best practices

PLO 3: Approach to Practice and Care. Demonstrates the knowledge, skills, abilities, behaviors, and attitudes necessary to solve problems; educate, advocate, and collaborate, working with a broad range of people; recognize social determinants of health; and effectively communicate verbally and nonverbally

- 3.1. Problem solving. Identifies problems; explore and prioritize potential strategies; and designs, implements, and evaluates viable solutions
- 3.2. Education. Demonstrates ability to educate all audiences through effectively communicating information and assessing learning
- 3.3. Patient advocacy. Represents the patient's best interests
- 3.4. Collaboration. Engages collaboratively as a healthcare team member by demonstrating mutual respect, understanding, and values to meet patient care needs
- 3.5. Cultural sensitivity. Identifies social determinants of health and acts to diminish disparities and inequities in access to quality care
- 3.6. Communication. Effectively communicates verbally and nonverbally when interacting with individuals, groups, and organizations

PLO 4: Personal and Professional Development. Uses the knowledge, skills, abilities, behaviors, and attitudes necessary to demonstrate self-awareness, leadership, innovation, entrepreneurship, and professionalism

- 4.1. Self-awareness. Examines and reflects on personal knowledge, skills, abilities, beliefs, biases, motivation, and emotions that could enhance or limit personal and professional growth
- 4.2. Leadership. Demonstrates responsibility for creating and achieving shared goals, regardless of position
- 4.3. Innovation and entrepreneurship. Engages in innovative activities by using creative thinking to envision better ways of accomplishing professional goals
- 4.4. Professionalism. Demonstrates behaviors and values that are consistent with the trust given to the profession by patients, other healthcare providers, and society

PLO 5: Interprofessional Competence. Uses the knowledge, skills, abilities, behaviors, and attitudes necessary to demonstrate appropriate values and ethics, roles and responsibilities, communication, and teamwork for collaborative practice

5.1. Values and ethics. Demonstrates ability to work with individuals of other professions to cultivate a climate of mutual respect and shared values

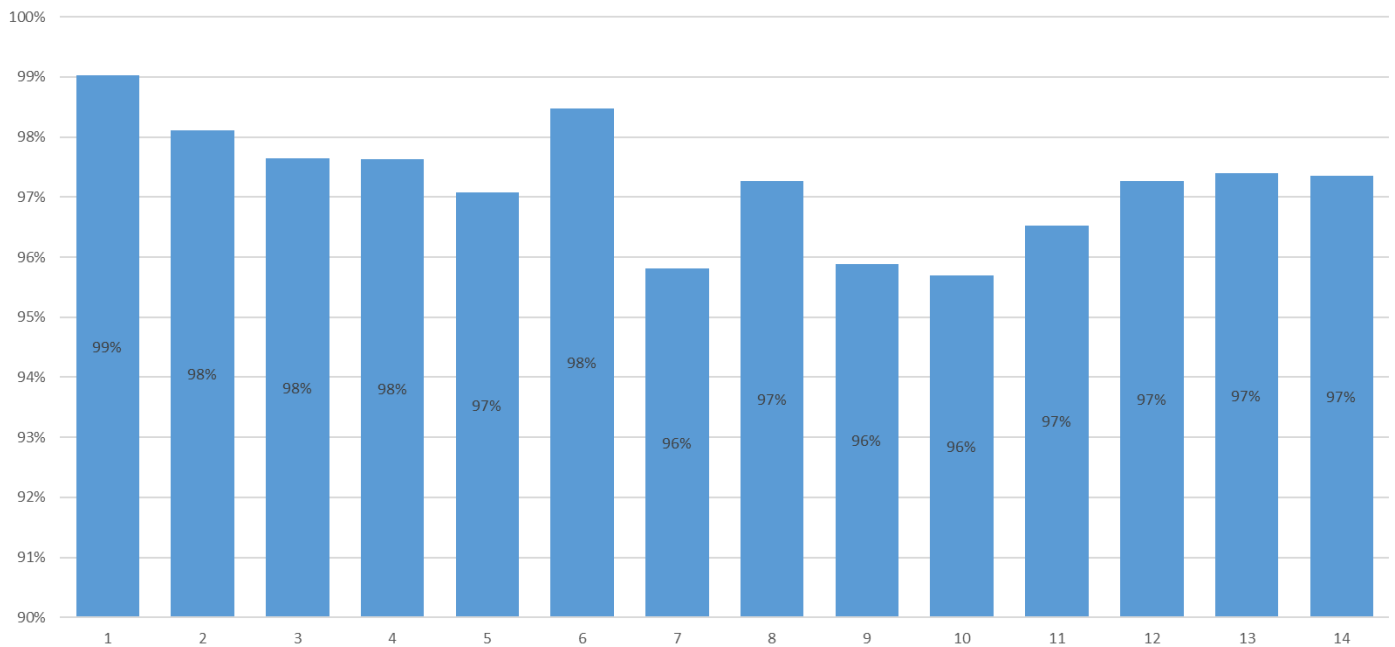
5.2. Roles and responsibilities. Uses the knowledge of one’s own role and those of other professions to assess and address the healthcare needs of the patients and populations served

5.3. Interprofessional communication. Demonstrates ability to communicate with patients, families, communities, and other health professionals

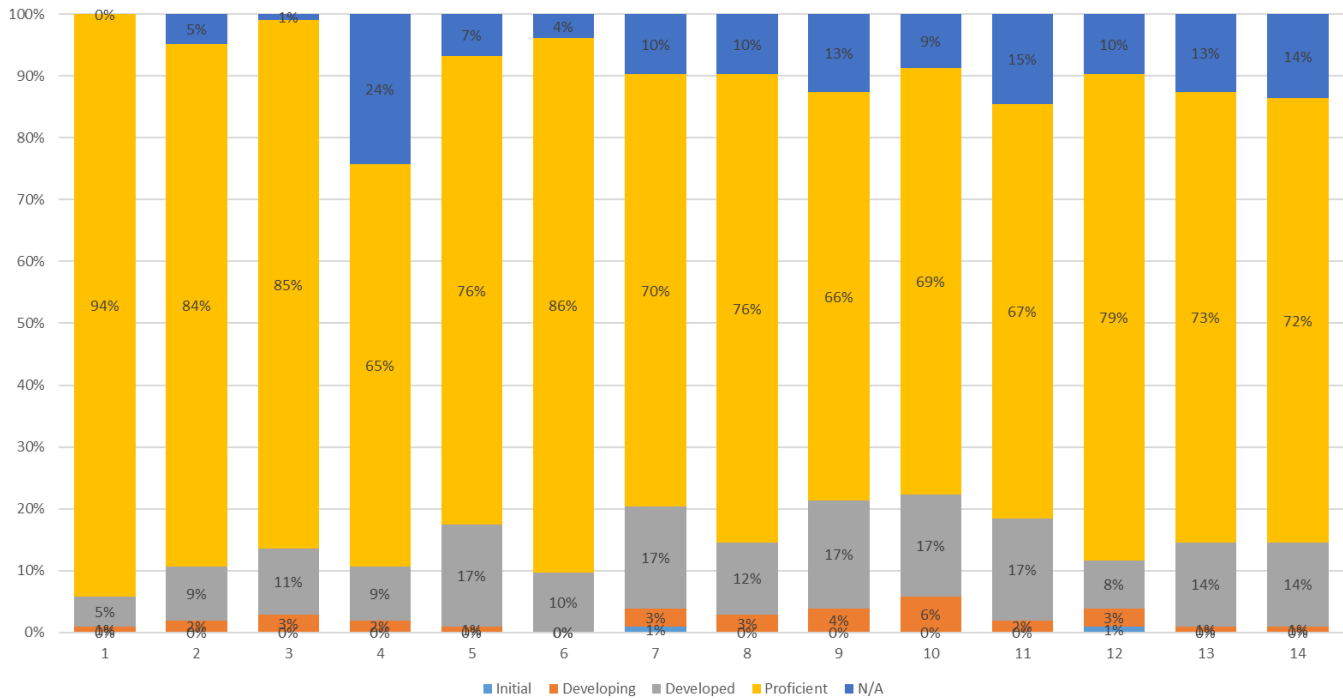
5.4. Teamwork. Apply relationship-building values and the principles of team dynamics to perform effectively in various team roles

2. Community Rotation

Average Score (%) on Community APPE
Based on Question

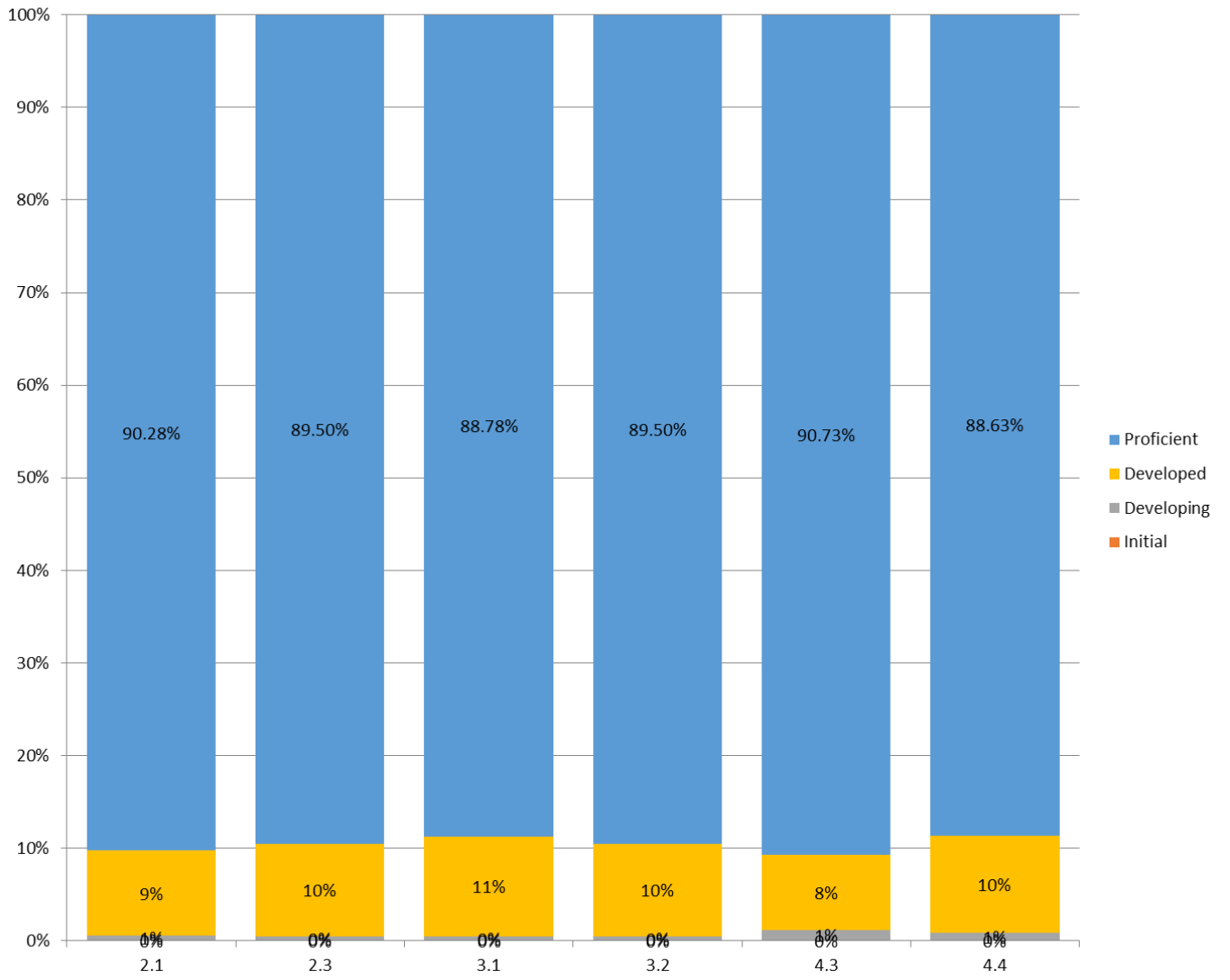


Student Proficiency on Community APPE
Based on Question

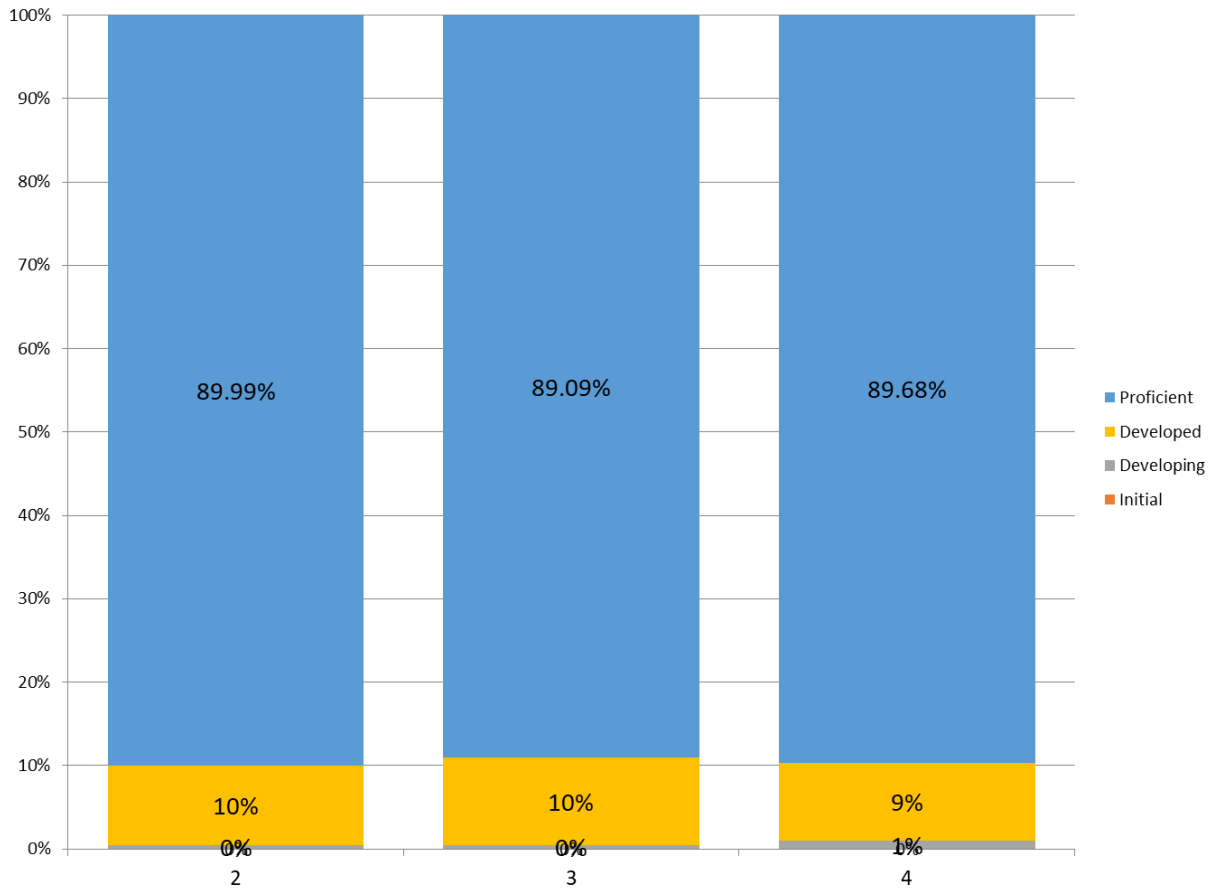


#	Question
1	Student verifies the presence and validity of the following: patient name and date of birth; drug name, strength and quantity; directions for use match the written prescription and are reasonable.
2	Student screens the patient profile to validate the appropriateness of the prescription, including the presence of drug-drug and drug-disease interactions, intolerances, duplications, dose changes and/or controlled substance state databank monitoring.
3	Student proactively assists with patient self-care, including helping patients make appropriate selections of OTC medications and dietary supplements.
4	Student collects, interprets and makes recommendations based on the results of health and wellness screenings and diagnostic tests.
5	Oversee and effectively manage the drug procurement process.
6	Describe the roles and responsibilities of each pharmacy staff member.
7	Lead the operations of a community pharmacy practice site.
8	Student conducts a patient interview and provides education.
9	Student conducts a comprehensive medication review.
10	Student identifies and resolves medication therapy problems, manages drug interactions, and resolves gaps in care.
11	Student facilitates patient self-administration of medications and disease monitoring.
12	Student is timely when submitting project idea, rough draft and completed project.
13	Student's project idea is original and/or the execution is creative.
14	Student's completed project will lead to improvement in healthcare cost, quality and/or patient satisfaction.

Proficiency Level Distribution by PLO



Proficiency Level Distribution by PLO



CNUCOP Program Learning Outcomes

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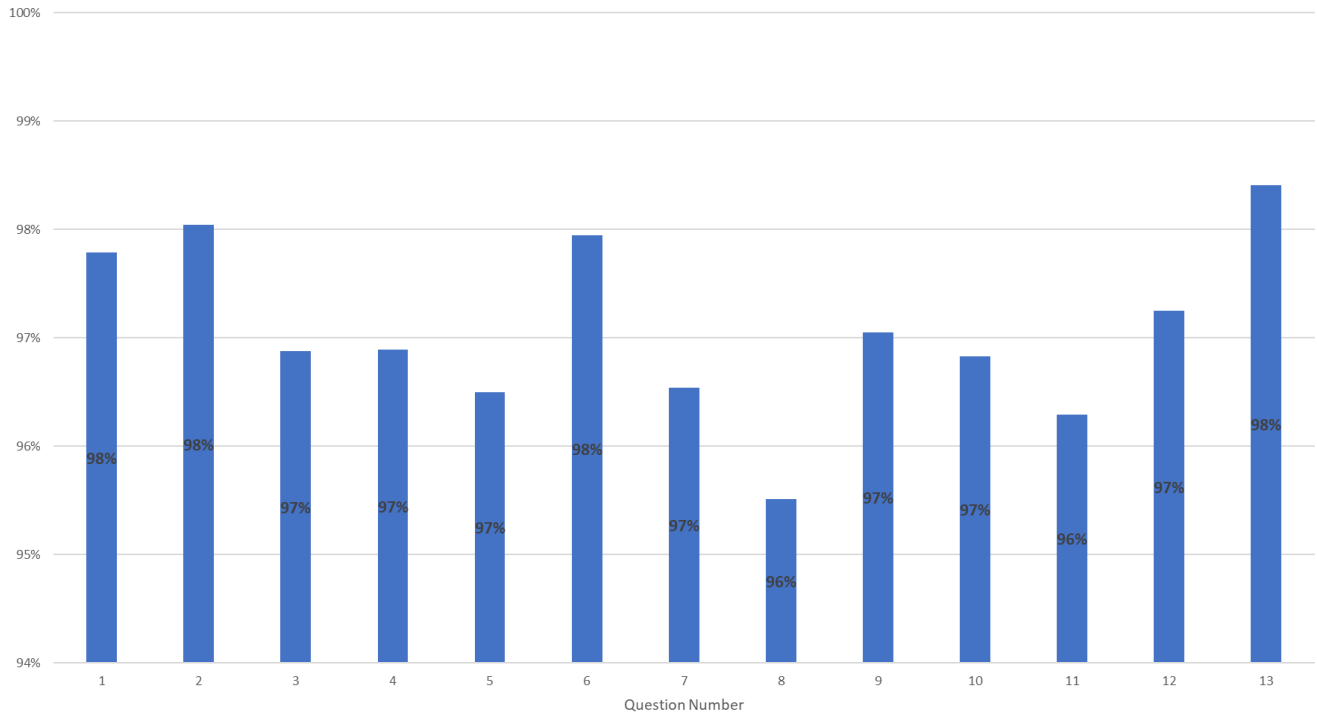
- 4.1. Self-awareness. Examines and reflects on personal knowledge, skills, abilities, beliefs, biases, motivation, and emotions that could enhance or limit personal and professional growth
- 4.2. Leadership. Demonstrates responsibility for creating and achieving shared goals, regardless of position
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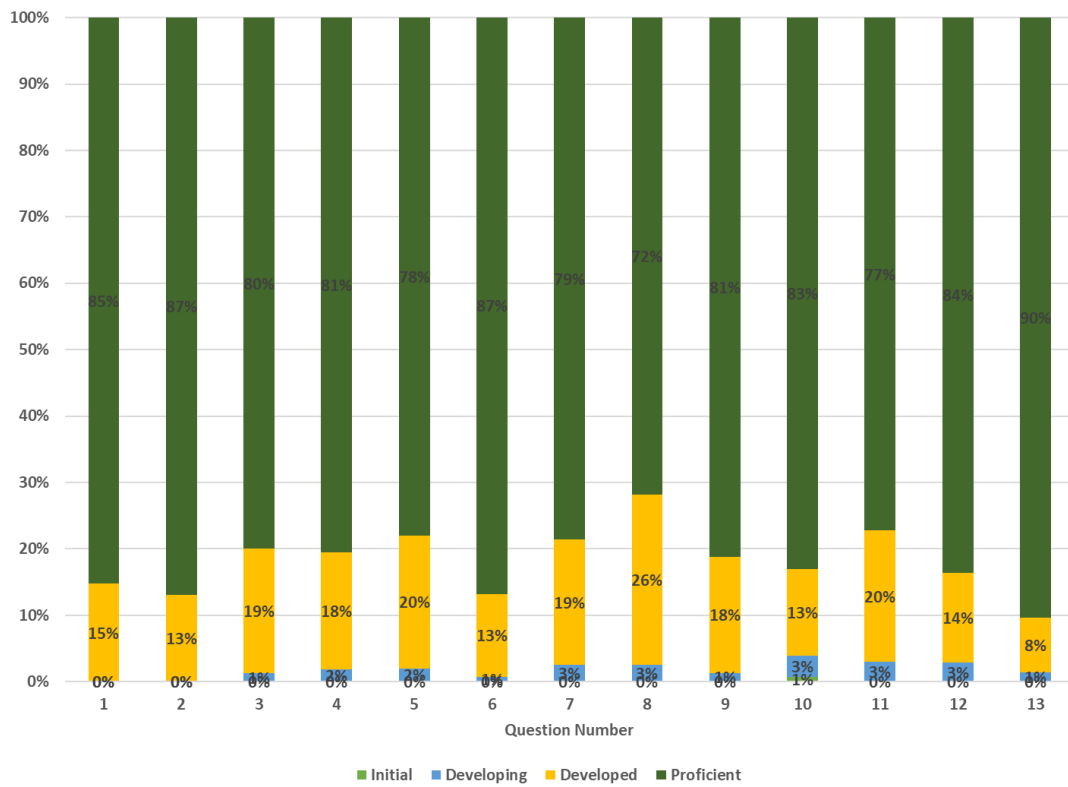
- 5.1. Values and ethics. Demonstrates ability to work with individuals of other professions to cultivate a climate of mutual respect and shared values
- 5.2. Roles and responsibilities. Uses the knowledge of one's own role and those of other professions to assess and address the healthcare needs of the patients and populations served
- 5.3. Interprofessional communication. Demonstrates ability to communicate with patients, families, communities, and other health professionals
- 5.4. Teamwork. Apply relationship-building values and the principles of team dynamics to perform effectively in various team roles

3. Hospital Rotation

Average Score

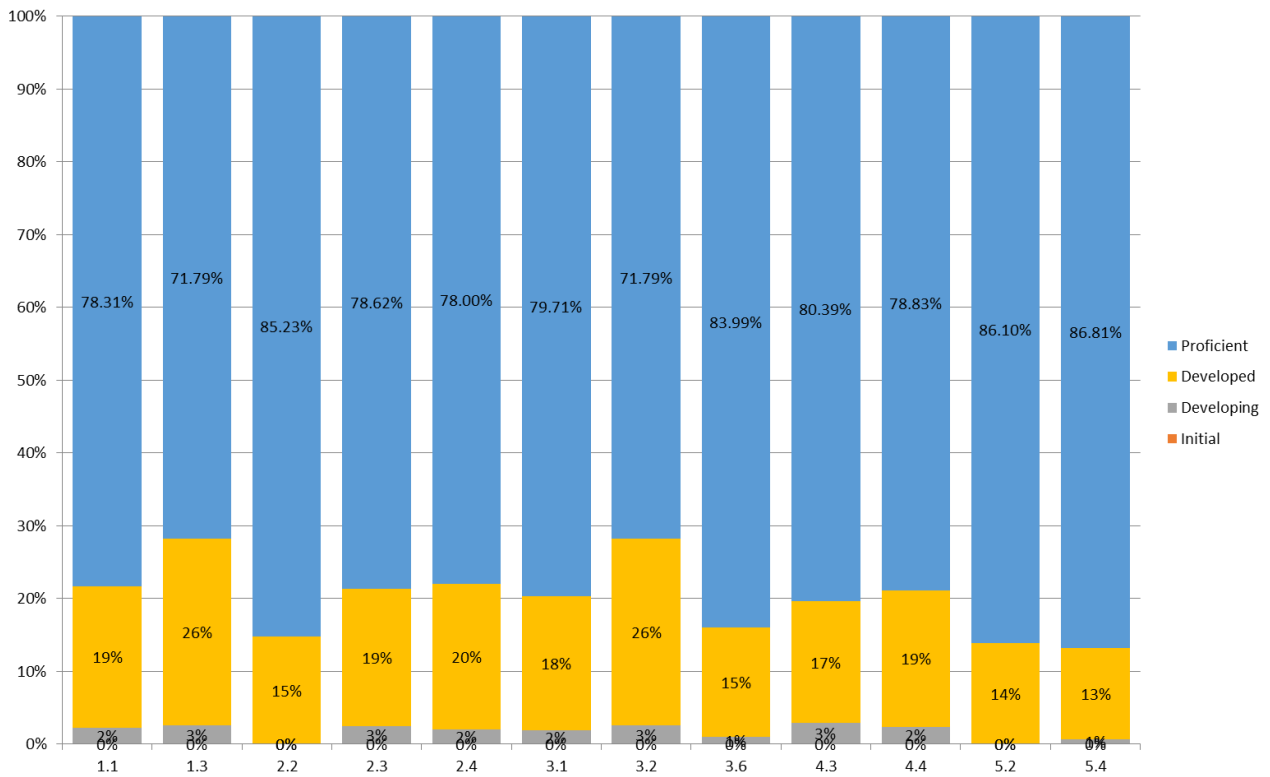


Proficiency Level Distribution

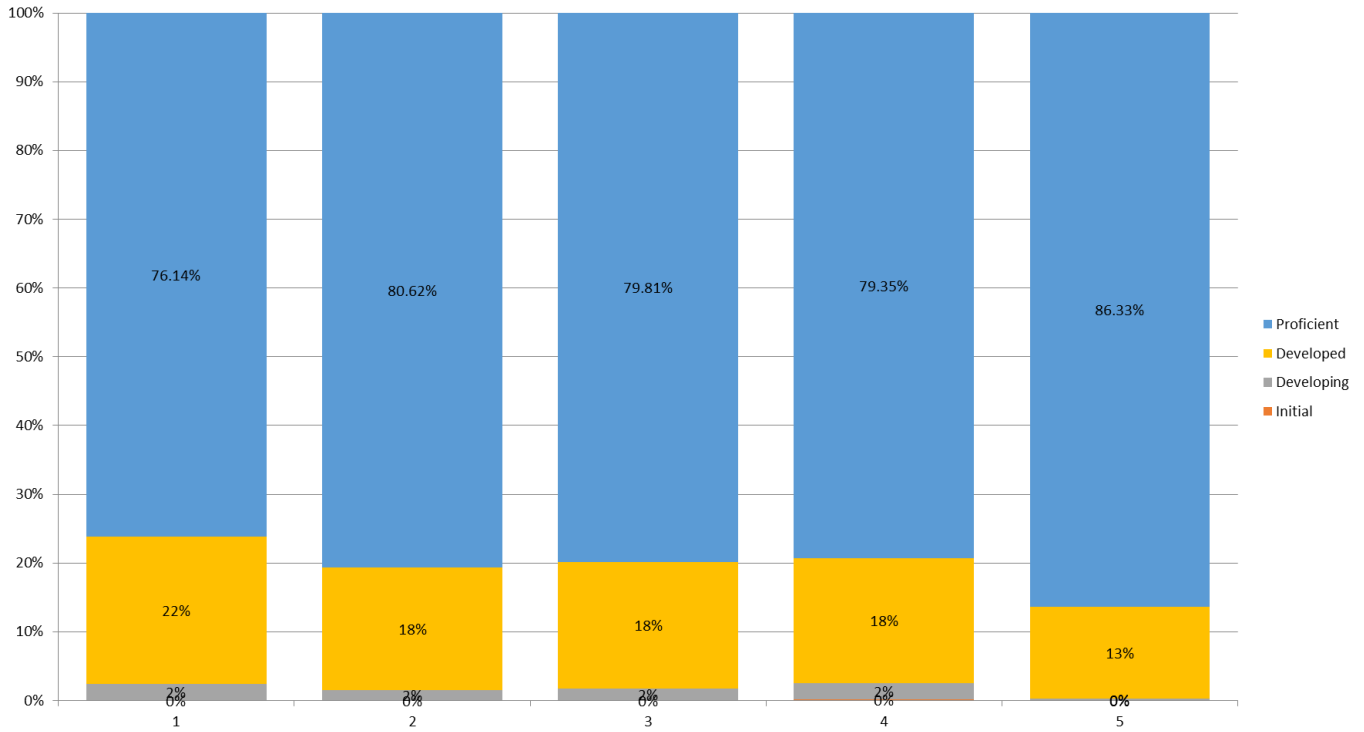


#	Question
1	Student is able to effectively evaluate a received drug order and enter it into the electronic health record (EHR), or review one entered by a pharmacy technician, for safety, accuracy and appropriateness for the patient.
2	Student is able to correctly articulate the roles of pharmacists and technicians in the health system dispensing process, and demonstrate the pharmacist's role.
3	Student is able to recognize competing patient care responsibilities and rank order them in terms of priority.
4	Student is able to respond effectively and promptly to competing priorities in times of high activity and workload.
5	Student is able to summarize the purpose and value of current National Patient Safety Goals (NPSG's).
6	Student is able to articulate specific institutional initiatives and the pharmacist's (and other healthcare providers') role for NPSG's that relate to medication use and pharmaceutical care provision.
7	Student is able to accurately assess the level of resource(s) needed (e.g., primary literature, review articles, textbooks) to respond to a drug information (DI) question.
8	Student is able to respond accurately and credibly to a DI question.
9	Student is able to ascertain when a verbal, written or both verbal and written response is appropriate for a given DI question.
10	Student is timely when submitting project idea, rough draft and completed project.
11	Student's project idea is original and/or the execution is creative.
12	Student's completed project will lead to improvement in healthcare cost, quality and/or patient satisfaction.

Proficiency Level Distribution by PLO



Proficiency Level Distribution by PLO



CNUCOP Program Learning Outcomes

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PLO 3: Approach to Practice and Care. Demonstrates the knowledge, skills, abilities, behaviors, and attitudes necessary to solve problems; educate, advocate, and collaborate, working with a broad range of people; recognize social determinants of health; and effectively communicate verbally and nonverbally

- 3.1. Problem solving. Identifies problems; explore and prioritize potential strategies; and designs, implements, and evaluates viable solutions

- 3.2. Education. Demonstrates ability to educate all audiences through effectively communicating information and assessing learning
- 3.3. Patient advocacy. Represents the patient’s best interests
- 3.4. Collaboration. Engages collaboratively as a healthcare team member by demonstrating mutual respect, understanding, and values to meet patient care needs
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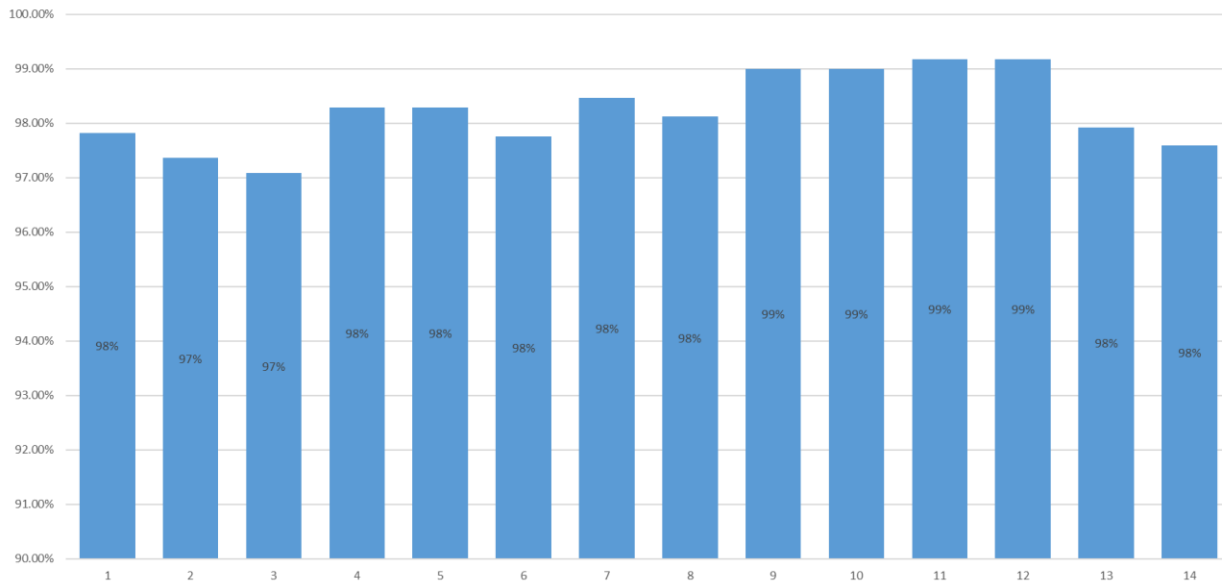
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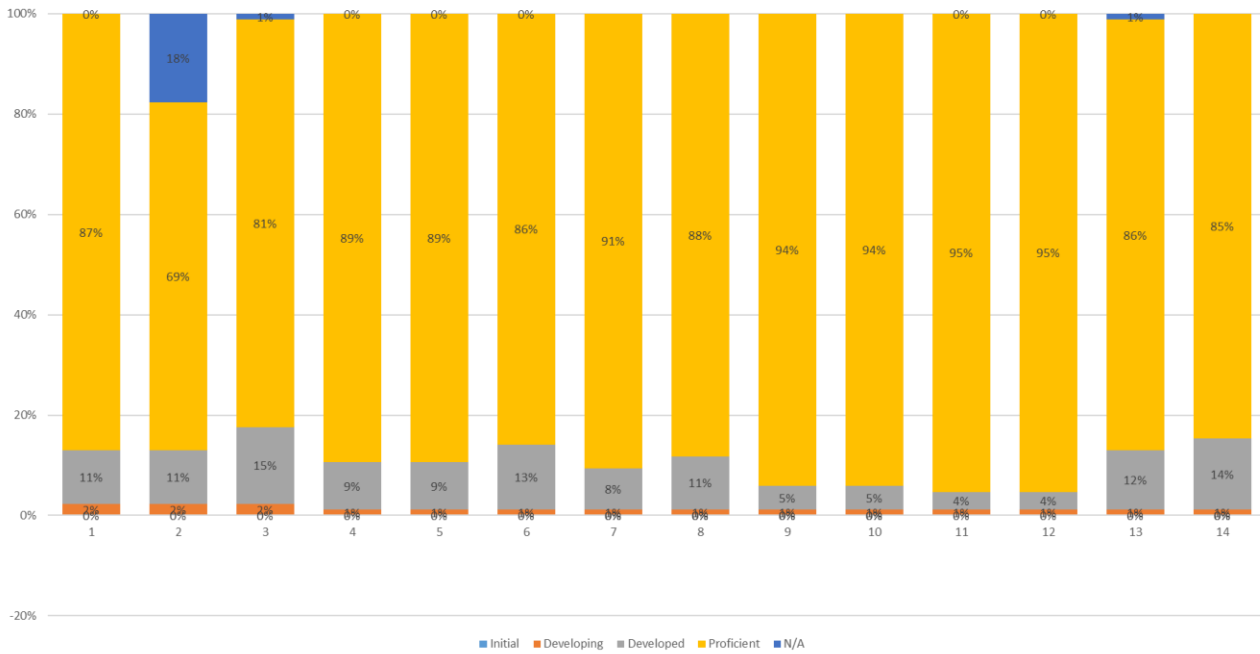
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- 5.2. Roles and responsibilities. Uses the knowledge of one’s own role and those of other professions to assess and address the healthcare needs of the patients and populations served
- 5.3. Interprofessional communication. Demonstrates ability to communicate with patients, families, communities, and other health professionals
- 5.4. Teamwork. Apply relationship-building values and the principles of team dynamics to perform effectively in various team roles

4. Ambulatory Care Rotation

Average Score (%) on Ambulatory Care APPE
Based on Question



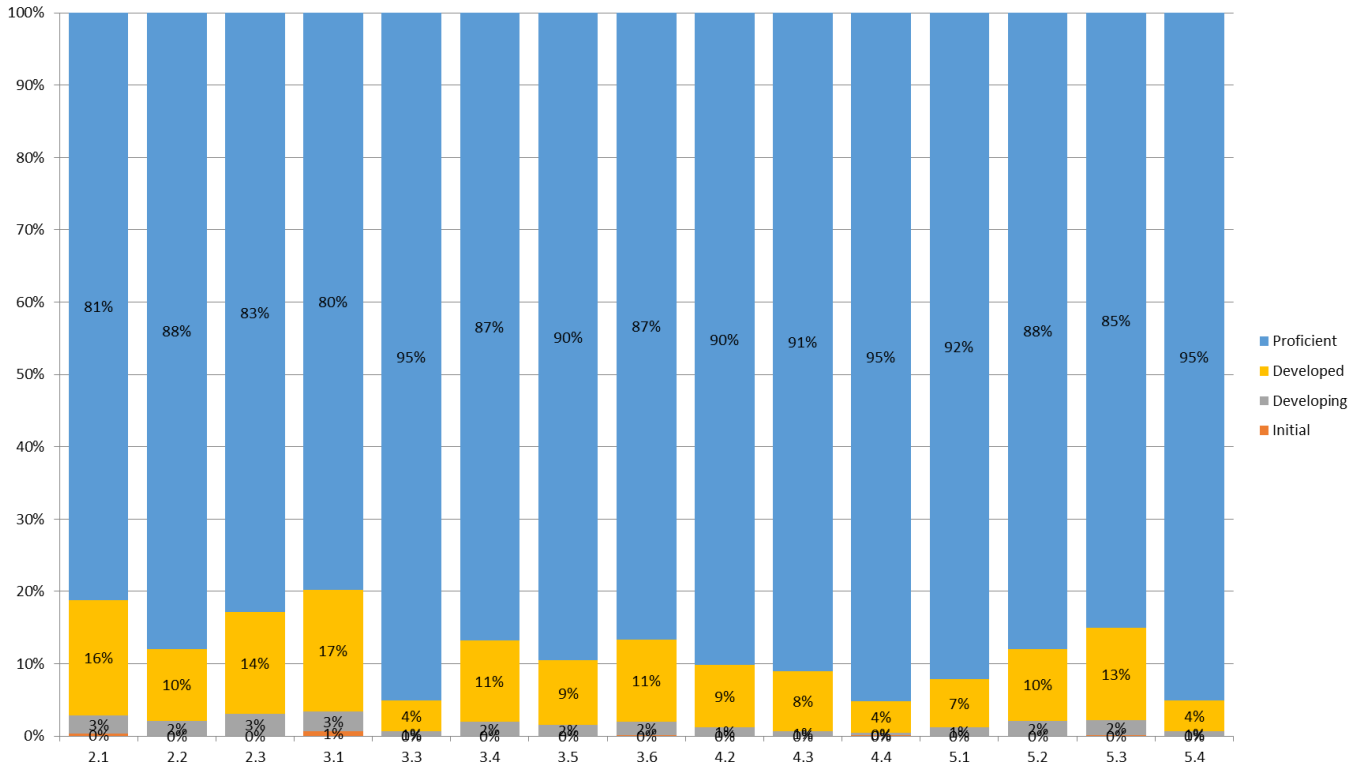
Student Proficiency on Ambulatory Care APPE
Based on Question



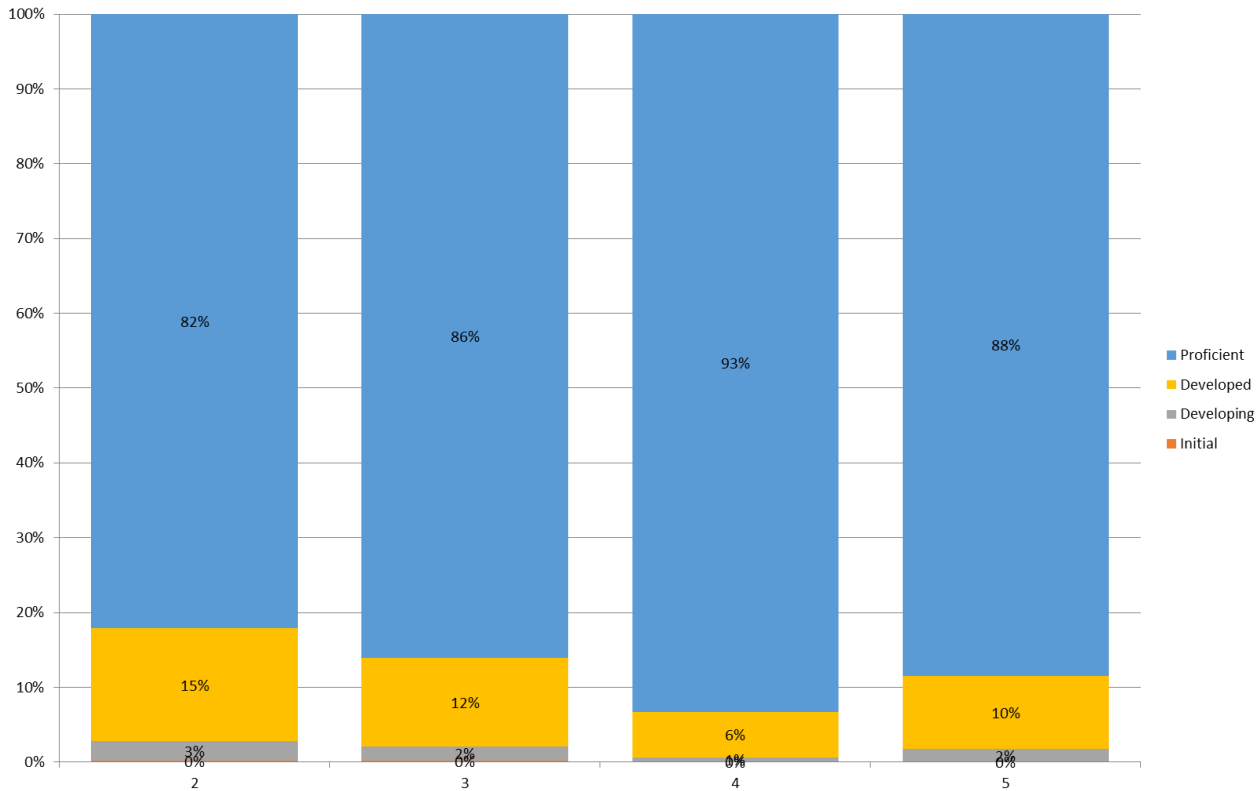
#	Question
1	Student is able to select the proper drug, dose, route and schedule given a patient's medical history, medical condition, culture and personal preferences
2	Student is able to apply pharmacotherapeutic knowledge to the disease states commonly encountered in the acute care setting
3	Student able to effectively address adverse drug reactions and drug misadventures when they arise.
4	Student is able to efficiently and effectively collect subjective and objective information including medication history, health data and lifestyle in order to understand the clinical status of the patient.
5	Student is able to efficiently and effectively assess the collected information and analyze the clinical effects of the patient's therapy in context of the patients' overall health goals.
6	Student is able to efficiently and effectively develop an individualized patient-centered health plan in collaboration with other health care professionals and the patient/caregiver that is evidence-based and cost-effective.
7	Student efficiently and effectively implements the care plan in collaboration with other healthcare professionals and patient/caregiver.
8	Student efficiently and effectively monitors and evaluates the effectiveness of the care plan and modifies the plan as necessary in collaboration with other health care professionals and the patient/caregiver.
9	Student displays the following characteristics when interacting with peers, patients and caregivers: active listening, honesty, patience, responsibility, sensitivity, and respect. (Caring)
10	Students' behavior is respectful of others' gender, age, religion, education level, degree of cultural assimilation and socioeconomic status. (Culturally sensitive)
11	Students' behavior when interacting with others is service-oriented, self-aware, fair, honest, trustworthy, and team-oriented. (Professional)
12	Student practice puts the patient's interest first; he/ she strives to promote, advocate for, and strives to protect the health, safety, and rights of the patient. (Ethical)

13	Student demonstrates drive and commitment in his/her work ethic that inspires and motivates others.
14	Student demonstrates interest in staying abreast of emerging business, practice and/or clinical trends.
15	Student accurately assesses the personnel (level of training and number) needed to effectively execute the clinic's service model
16	Student is timely when submitting project idea, rough draft and completed project.
17	Student's project idea is original and/or the execution is creative.
18	Student's completed project will lead to improvement in healthcare cost, quality and/or patient satisfaction.

Proficiency Level Distribution by PLO



Proficiency Level Distribution by PLO



CNUCOP Program Learning Outcomes

PLO 1: Foundational Knowledge. Demonstrates the knowledge, skills, abilities, behaviors, and attitudes necessary to apply the foundational sciences to the provision of patient-centered care

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2.4. Population-based care. Demonstrates understanding of how population-based care influences patient-centered care and the development of practice guidelines and evidence-based best practices

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3.5. Cultural sensitivity. Identifies social determinants of health and acts to diminish disparities and inequities in access to quality care

3.6. Communication. Effectively communicates verbally and nonverbally when interacting with individuals, groups, and organizations

PLO 4: Personal and Professional Development. Uses the knowledge, skills, abilities, behaviors, and attitudes necessary to demonstrate self-awareness, leadership, innovation, entrepreneurship, and professionalism

4.1. Self-awareness. Examines and reflects on personal knowledge, skills, abilities, beliefs, biases, motivation, and emotions that could enhance or limit personal and professional growth

4.2. Leadership. Demonstrates responsibility for creating and achieving shared goals, regardless of position

4.3. Innovation and entrepreneurship. Engages in innovative activities by using creative thinking to envision better ways of accomplishing professional goals

4.4. Professionalism. Demonstrates behaviors and values that are consistent with the trust given to the profession by patients, other healthcare providers, and society

PLO 5: Interprofessional Competence. Uses the knowledge, skills, abilities, behaviors, and attitudes necessary to demonstrate appropriate values and ethics, roles and responsibilities, communication, and teamwork for collaborative practice

5.1. Values and ethics. Demonstrates ability to work with individuals of other professions to cultivate a climate of mutual respect and shared values

5.2. Roles and responsibilities. Uses the knowledge of one's own role and those of other professions to assess and address the healthcare needs of the patients and populations served

5.3. Interprofessional communication. Demonstrates ability to communicate with patients, families, communities, and other health professionals

5.4. Teamwork. Apply relationship-building values and the principles of team dynamics to perform effectively in various team roles

III. High stakes exams

A. 2023 Qualifying Exam Series

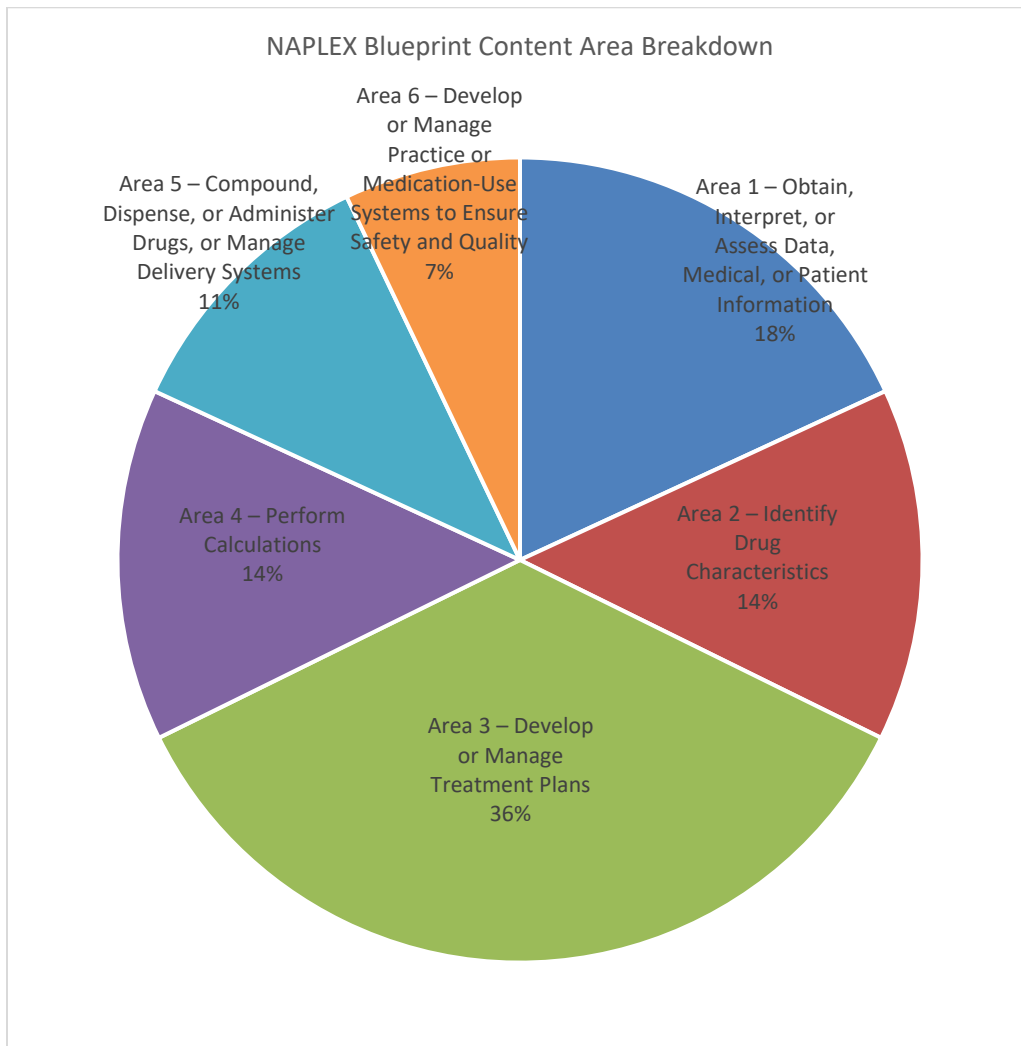
Overview:

Over the last year several exams were developed to help students from the class of 2023 prepare for board examinations by providing experience in taking an examination a setting with questions types analogous to a real board examination and by helping to identify strengths and weakness in student knowledge based on the NAPLEX content areas as well as therapeutic areas thereby optimizing subsequent examination preparation.

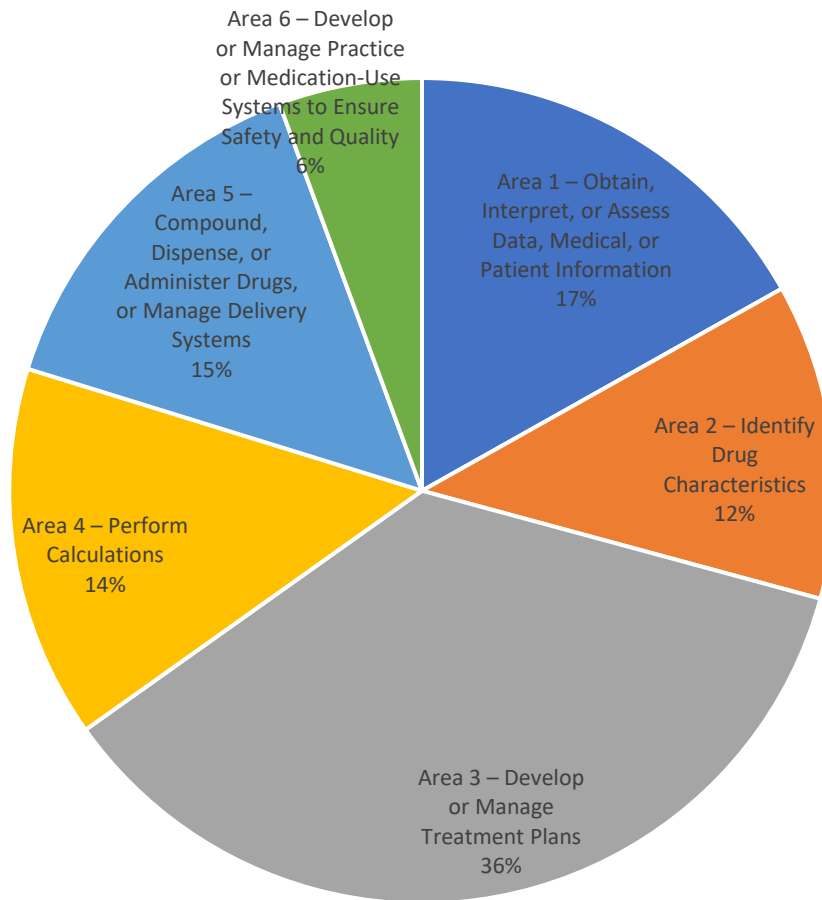
1. First qualifying exam:
 - Administered on February 17th
 - 70% threshold for passing, score to be used for final exam grade of APP 911 (worth 15% of the course grade)
 - Administered and proctored virtually
2. Pre-NAPLEX Exam:
 - Those that fail to pass the qualifying exam will be required to take pre-NAPLEX exam
 - The \$75 fee will be covered by the College and all students are encouraged to take the exam, including those that passed the qualifying exam are encouraged to take the exam
 - The exam will be proctored virtually and administered on March 31st
 - The passing threshold for the pre-NAPLEX is 75 out of a maximum of 150 points based on the scaled score
 - Those that pass will receive full credit (100%) on the final exam for APP 911
3. Third Qualifying Exam:
 - Those that failed the first qualifying exam and the pre-NAPLEX will be required to complete the remediation process:
 - Complete online modules and quizzes provided by PassNAPLEXNow on areas that were identified to be deficient in (based on the first qualifying exam and/or pre-NAPLEX, it's unlikely that the pre-NAPLEX report provides data based on therapeutic areas rather than solely content areas)
 - Students must submit the report from pre-NAPLEX to the college (not sure which office should oversee the collecting and reviewing all of the reports)
 - Complete the remediation qualifying exam on April 28th (this was originally the second qualifying exam)
 - The remediation qualifying exam score may be used for the final exam score in APP 911 if it is higher than the first qualifying exam score
 - Remediation components must be completed to graduate

Brief analysis of Exams:

- The qualifying exams closely resembled the NAPLEX Blueprint based on the content area breakdown
- Although the question bank was robust some blueprint categories nevertheless lacked in the number of questions
- For those students taking the 3rd qualifying exam student performance in Area 1 – Obtain, Interpret, or Assess Data, Medical, or Patient Information (46%) Content Area 2 – Identify Drug Characteristics (47% average) and Area 3 – Develop or Manage Treatment Plans (48%) were slightly weaker than other areas
- Remediation process may need to be reevaluated



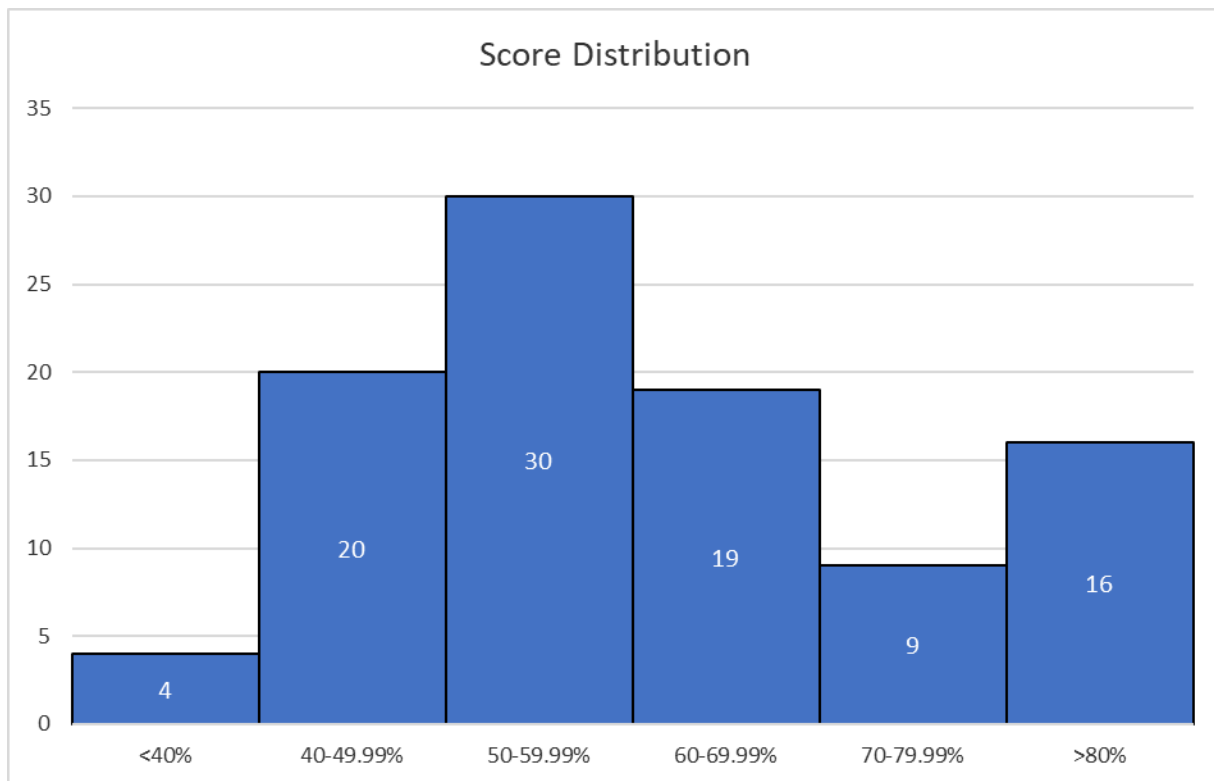
Qualifying Exam III Content Area Breakdown



Exam Results

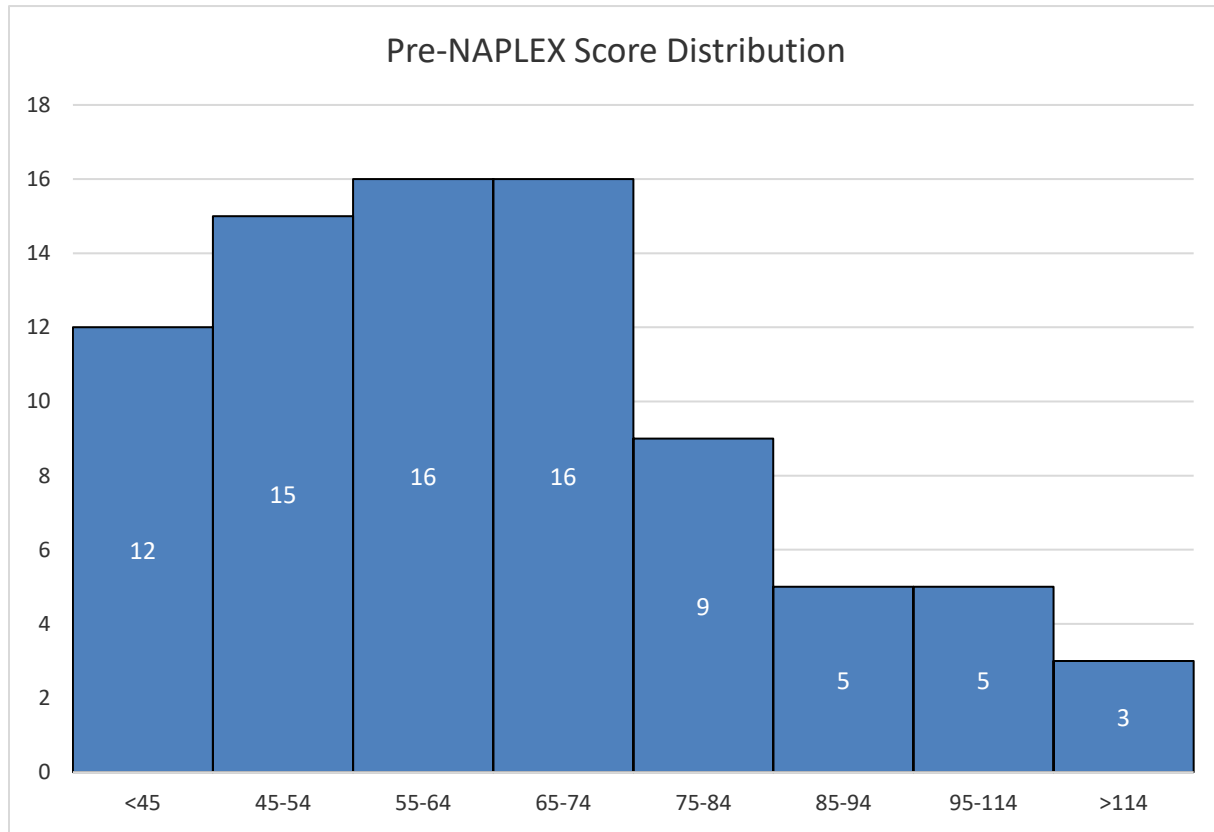
Qualifying Exam I Results

Number of Students Taking the Exam	98
Average Score \pms.d.	60.9% \pm 14.4%
Median Score (IQR)	57.7% (50.4-70.5%)
Number of Students Passing (%)	25 (25.5%)



Pre-NAPLEX

89 students took the exam (including 11 or 25 students that passed the 1st Qualifying Exam)
 Results: average 66.3 (± 22.1), Median 63 (IQR 52-80)

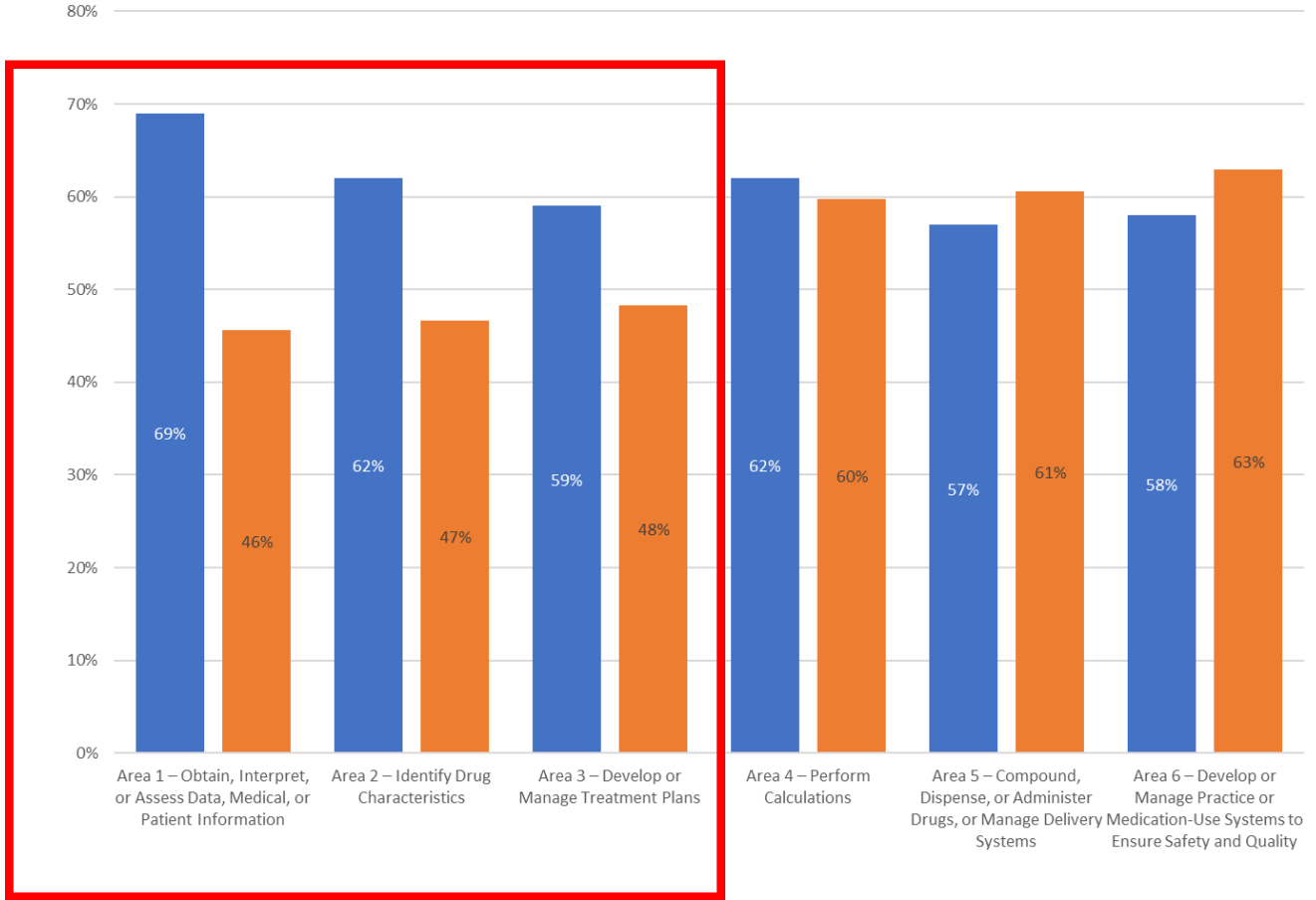


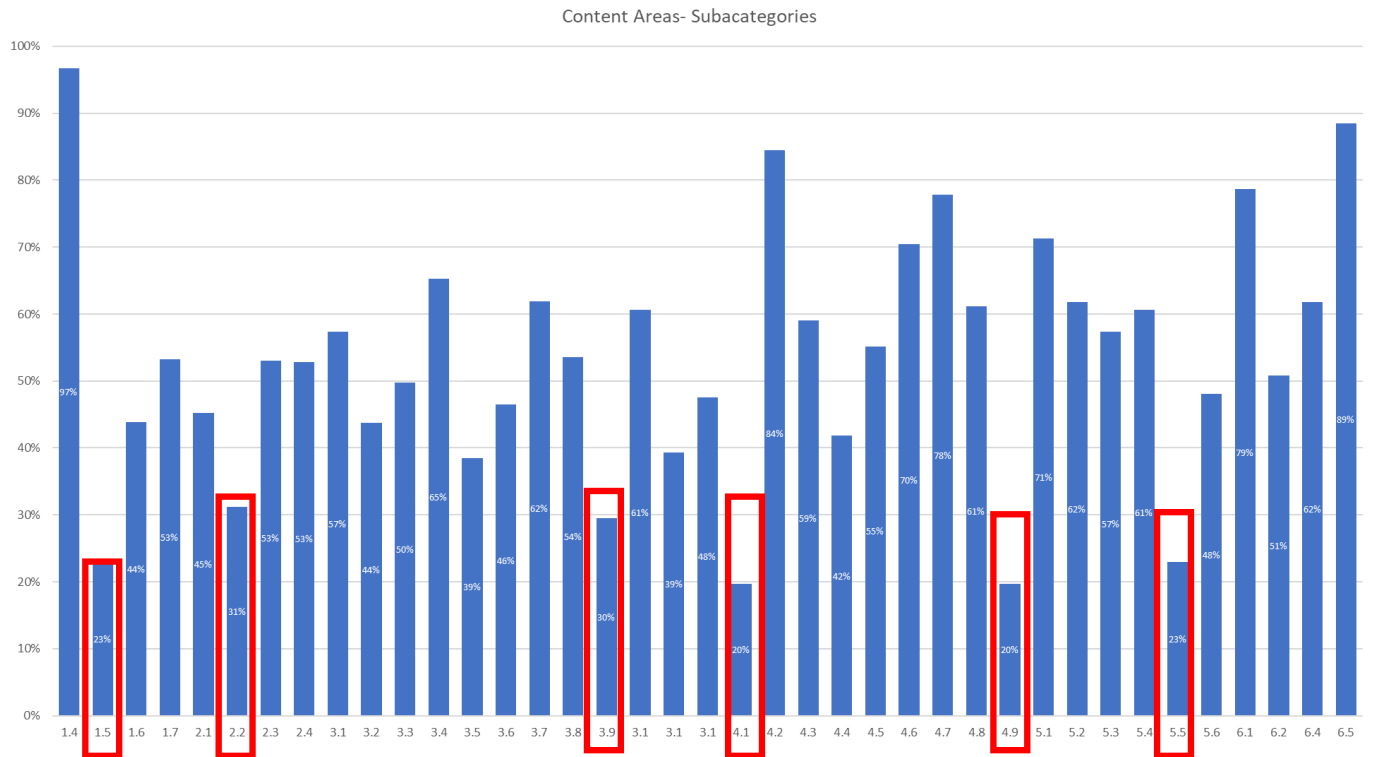
Qualifying Exam III Results

Number of Students Taking the Exam	61
Average Score \pm s.d.	60.8% \pm 12.5%
Median Score (IQR)	58.2% (53.1-67.4%)
Number of Students Passing (%)	14 (23.0%)



Performance by Content Areas





Possible areas of weakness

NAPLEX Content Area Subcategories: Area 1 – Obtain, Interpret, or Assess Data, Medical, or Patient Information

- 1.1 – From instruments, screening tools, laboratory, genomic or genetic information, or diagnostic findings
- 1.2 – From patients: treatment adherence, or medication-taking behavior; chief complaint, medication history, medical history, family history, social history, lifestyle habits, socioeconomic background
- 1.3 – From practitioners: treatment adherence, or medication-taking behavior; chief complaint, medication history, medical history, family history, social history, lifestyle habits, socioeconomic background
- 1.4 – From medical records: treatment adherence, or medication-taking behavior; chief complaint, medication history, medical history, family history, social history, lifestyle habits, socioeconomic background
- 1.5 – Signs or symptoms of medical conditions, healthy physiology, etiology of diseases, or pathophysiology
- 1.6 – Risk factors or maintenance of health and wellness
- 1.7 – Evidence-based literature or studies using primary, secondary, and tertiary references

NAPLEX Content Area Subcategories: Area 2 – Identify Drug Characteristics

- 2.1 – Pharmacology, mechanism of action, or therapeutic class
- 2.2 – Commercial availability; prescription or non-prescription status; brand, generic, or biosimilar names; physical descriptions; or how supplied
- 2.3 – Boxed warnings or REMS
- 2.4 – Pregnancy or lactation

NAPLEX Content Area Subcategories: Area 3 – Develop or Manage Treatment Plans

- 3.1 – Triage or medical referral
- 3.2 – Therapeutic goals or outcomes and clinical endpoints
- 3.3 – Medication reconciliation; indication or therapeutic uses; lack of indication; inappropriate indication; duplication of therapy; omissions
- 3.4 – Drug dosing or dosing adjustments; duration of therapy
- 3.5 – Drug route of administration, dosage forms, or delivery systems
- 3.6 – Drug contraindications, allergies, or precautions
- 3.7 – Adverse drug effects, toxicology, or overdose
- 3.8 – Drug interactions
- 3.9 – Therapeutic monitoring parameters, monitoring techniques, monitoring tools, or monitoring frequency
- 3.10 – Drug pharmacokinetics or pharmacodynamics
- 3.11 – Evidence-based practice
- 3.12 – Non-drug therapy: lifestyle, self-care, first-aid, complementary and alternative medicine, or medical equipment

NAPLEX Content Area Subcategories: Area 4 – Perform Calculations

- 4.1 – Patient parameters or laboratory measures
- 4.2 – Quantities of drugs to be dispensed or administered
- 4.3 – Rates of administration
- 4.4 – Dose conversions
- 4.5 – Drug concentrations, ratio strengths, osmolarity, osmolality, or extent of ionization
- 4.6 – Quantities of drugs or ingredients to be compounded
- 4.7 – Nutritional needs and the content of nutrient sources
- 4.8 – Biostatistics, epidemiological, or pharmaco-economic measures
- 4.9 – Pharmacokinetic parameters

NAPLEX Content Area Subcategories: Area 5 – Compound, Dispense, or Administer Drugs, or Manage Delivery Systems

- 5.1 – Physicochemical properties of drug products affecting compatibility, stability, delivery, absorption, onset, duration, distribution, metabolism, or elimination
- 5.2 – Techniques, procedures, or equipment for hazardous or non-hazardous sterile products
- 5.3 – Techniques, procedures, or equipment for hazardous or non-hazardous non-sterile products
- 5.4 – Equipment or delivery systems
- 5.5 – Instructions or techniques for drug administration
- 5.6 – Packaging, storage, handling, or disposal

NAPLEX Content Area Subcategories: Area 6 – Develop or Manage Practice or Medication-Use Systems to Ensure Safety and Quality

- 6.1 – Interdisciplinary practice, collaborative practice, or expanded practice responsibilities
- 6.2 – Continuity of care or transitions of care
- 6.3 – Disease prevention or screening programs; or stewardship
- 6.4 – Vulnerable populations, special populations, or risk prevention programs
- 6.5 – Pharmacy informatics

Questions Bank Contents

NAPLEX	# of questions
Area 1 – Obtain, Interpret, or Assess Data, Medical, or Patient Information	59
1.1 – From instruments, screening tools, laboratory, genomic or genetic information, or diagnostic findings	25
1.2 – From patients: treatment adherence, or medication-taking behavior; chief complaint, medication history, medical history, family history, social history, lifestyle habits, socioeconomic background	5
1.3 – From practitioners: treatment adherence, or medication-taking behavior; chief complaint, medication history, medical history, family history, social history, lifestyle habits, socioeconomic background	4
1.4 – From medical records: treatment adherence, or medication-taking behavior; chief complaint, medication history, medical history, family history, social history, lifestyle habits, socioeconomic background	5
1.5 – Signs or symptoms of medical conditions, healthy physiology, etiology of diseases, or pathophysiology	9
1.6 – Risk factors or maintenance of health and wellness	12
1.7 – Evidence-based literature or studies using primary, secondary, and tertiary references	9
Area 2 – Identify Drug Characteristics	115
2.1 – Pharmacology, mechanism of action, or therapeutic class	41
2.2 – Commercial availability; prescription or non-prescription status; brand, generic, or biosimilar names; physical descriptions; or how supplied	30
2.3 – Boxed warnings or REMS	15
2.4 – Pregnancy or lactation	25
Area 3 – Develop or Manage Treatment Plans	275
3.1 – Triage or medical referral	9

3.10 – Drug pharmacokinetics or pharmacodynamics	8
3.11 – Evidence-based practice	69
3.12 – Non-drug therapy: lifestyle, self-care, first-aid, complementary and alternative medicine, or medical equipment	19
3.2 – Therapeutic goals or outcomes and clinical endpoints	21
3.3 – Medication reconciliation; indication or therapeutic uses; lack of indication; inappropriate indication; duplication of therapy; omissions	47
3.4 – Drug dosing or dosing adjustments; duration of therapy	41
3.5 – Drug route of administration, dosage forms, or delivery systems	20
3.6 – Drug contraindications, allergies, or precautions	23
3.7 – Adverse drug effects, toxicology, or overdose	51
3.8 – Drug interactions	13
3.9 – Therapeutic monitoring parameters, monitoring techniques, monitoring tools, or monitoring frequency	28
Area 4 – Perform Calculations	112
4.1 – Patient parameters or laboratory measures	21
4.2 – Quantities of drugs to be dispensed or administered	12
4.3 – Rates of administration	14
4.4 – Dose conversions	11
4.5 – Drug concentrations, ratio strengths, osmolarity, osmolality, or extent of ionization	10
4.6 – Quantities of drugs or ingredients to be compounded	9
4.7 – Nutritional needs and the content of nutrient sources	24
4.8 – Biostatistics, epidemiological, or pharmacoeconomic measures	13
4.9 – Pharmacokinetic parameters	20
Area 5 – Compound, Dispense, or Administer Drugs, or Manage Delivery Systems	71
5.1 – Physicochemical properties of drug products affecting compatibility, stability, delivery, absorption, onset, duration, distribution, metabolism, or elimination	20
5.2 – Techniques, procedures, or equipment for hazardous or non-hazardous sterile products	12
5.3 – Techniques, procedures, or equipment for hazardous or non-hazardous non-sterile products	11
5.4 – Equipment or delivery systems	13
5.5 – Instructions or techniques for drug administration	10
5.6 – Packaging, storage, handling, or disposal	20
Area 6 – Develop or Manage Practice or Medication-Use Systems to Ensure Safety and Quality	48
6.1 – Interdisciplinary practice, collaborative practice, or expanded practice responsibilities	3
6.2 – Continuity of care or transitions of care	2
6.3 – Disease prevention or screening programs; or stewardship	8
6.4 – Vulnerable populations, special populations, or risk prevention programs	17
6.5 – Pharmacy informatics	1
Ensure Safe and Effective Pharmacotherapy and Health Outcomes	370
Biostatistics	48
Cardiovascular	227
Dermatology	2
Drug Information	34
Endocrinology (Diabetes, Thyroid, etc)	63
Gastrointestinal/Hepatic Disorders	31
Infectious Diseases	197
Law and Ethics	28
Management/Healthcare Systems/Pharmacoeconomics	22
Men's health/urology	17
Nutrition	40

Oncology/Hematology/Supportive Care	55
Psychiatry/CNS/Pain/Insomnia	174
Pulmonology	78
Renal/Acid-Base	30
Rheumatology/Immunology	30
Self-care	46
Toxicology	13
Vaccinations	16
Women's Health/Osteoporosis	32
LPPK	226
Pre-qualifying Exam	217
Qualifying Exam	338
Safe and Accurate Preparation, Compounding, Dispensing & Administration of Medications	168
Calculations	232
Compounding	35
Dispensing and Administering Dugs	60

B. 2023 Milestone Exam Report

Exam Administration process

- The P1 and P2 Milestone Examinations were administered virtually and in person in the summer on Thursday, July 6th and Friday, July 7th, respectively.
- Retake Milestone Examination attempt was offered on Saturday, July 15th also virtually for students that did not pass both of the Milestone Examination components on their first attempt.
- Questions writing responsibilities continued with course coordinators of applicable topics.
- Department Chairs designated question reviewers within their departments and assigned a specific number of questions to each faculty member
- Assessment Committee recommended that CANVAS is utilized as the portal for housing study resources for the P1 and P2 Milestone Examinations. Assessment committee continued encouraging the material to be presented in a more concise manner
- The passing threshold for the P1 Calculations component of the Milestone Examinations was again 70%, whereas the passing threshold for other components was 50%; however, the passing threshold for the P2 Calculations component of the Milestone Examinations was increased 80%,
- Students that achieve a weighted average of $\geq 70\%$ on the first attempt of both Milestone Examination components will be awarded 2 percentage points that may be added to the course average of a course in the Fall Semester following the Milestone Examinations.

Exam Format:

- The P1 Milestone Examination consisted of calculations questions and questions that corresponded to P1 classes to be administered as two separate assessments on the same date.
 - 40 calculations questions
 - 2.0 – 2.5 questions per credit hour of each P1 course.
- The P2 Milestone Examination consisted of questions relating to evidence-based medicine as well as questions that correspond to P2 classes to be administered as three separate assessments on the same date.
 - 40 evidence-based medicine
 - 40 calculations questions
 - 2.5 – 3.0 questions per credit hour of each P2 course

	Credits	Questions Per Credit	Number of Questions	Minutes per question	Total Duration (minutes)
P1 Calculations	NA	NA	40	2.5	100
P1 Course-related Section	Credits	Questions Per Credit	Number of Questions	Minutes per question	Total Duration (minutes)
PBS 601: Cell and Moleculat	4	2-2.5	10		
PBS 603: Med Chem	3	2-2.5	8		
PBS 605: Pharmaceutics	4	2-2.5	10		
PBS 602: Patho I	6	2-2.5	15		
PBS 604: Kinetics	5	2-2.5	12		
P1 Milestone Case	NA	NA	4		
CAS 606: Biostat	3	2-2.5	8		
CAS 608: Clinical Topics	5	2-2.5	12		
IPP 607: Intro to Pharmacy	3.5	2-2.5	10		
Total			89	1.5	135
EBM	Credits	Questions Per Credit	Number of Questions	Minutes per question	Total Duration (minutes)
CAS 606: Bioiostatistics	3	NA	20		
CAS 703: Drug information	3	NA	20		
Total			40	1.5	60
P2 Calculations	NA		40	2.5	100
P2 Course-related Section	Credits	Questions Per Credit	Number of Questions	Minutes per question	Total Duration (minutes)
PBS 701 Patho II	6	2.5-3	15		
PBS 704: Patho III	6	2.5-3	15		
CAS 705: Pharmacotherapy I	6	2.5-3	15		
CAS 706: Pharmacotherapy II	6	2.5-3	15		
P2 CNS Case	NA	NA	3		
P2 CV/Pulmonary/T2DM Case	NA	NA	3		
Total			66	1.5	100

Results

Analysis:

- Students performed similarly on the P1 and P2 course related questions components, with only 68% and 69% averages respectively.
- While the average for the P1 and P2 calculations components was 81% and 75%, respectively due to the 70% and 80% threshold only 83% and 35% passed this component in the first attempt.
- No other major findings were identified. PBS 603: Medicinal Chemistry (63%), PBS 604: Pharmacokinetics (66%) were relatively weaker for the P1s and CAS 706: Pharmacotherapy: CV, Diabetes Mellitus) (60% and Integrated questions (56)% were relatively weaker for the P2s. This could reflect increased difficulty of the questions or actual weaker understanding of the topics.

P1 Course-Related Section (50% passing threshold):

Mean: 68%

Range: 34-97%

97% pass rate

P1 course-related questions retake: 3/3 passed

P1 Calculations (70% passing threshold):

Mean: 81%

Range: 37.5-100%

83.3% pass rate

P1 Calculations retake: all 10/10 passed

P2 Course-Related Section (50% passing threshold):

Mean: 66%

Range: 39-89%

90% pass rate

P2 course-related section: 7/8 passed

P2 Calculations (80% passing threshold):

Mean: 75%

Range: 48-100%

35% pass rate

P2 Calculations retake: 38/38 passed

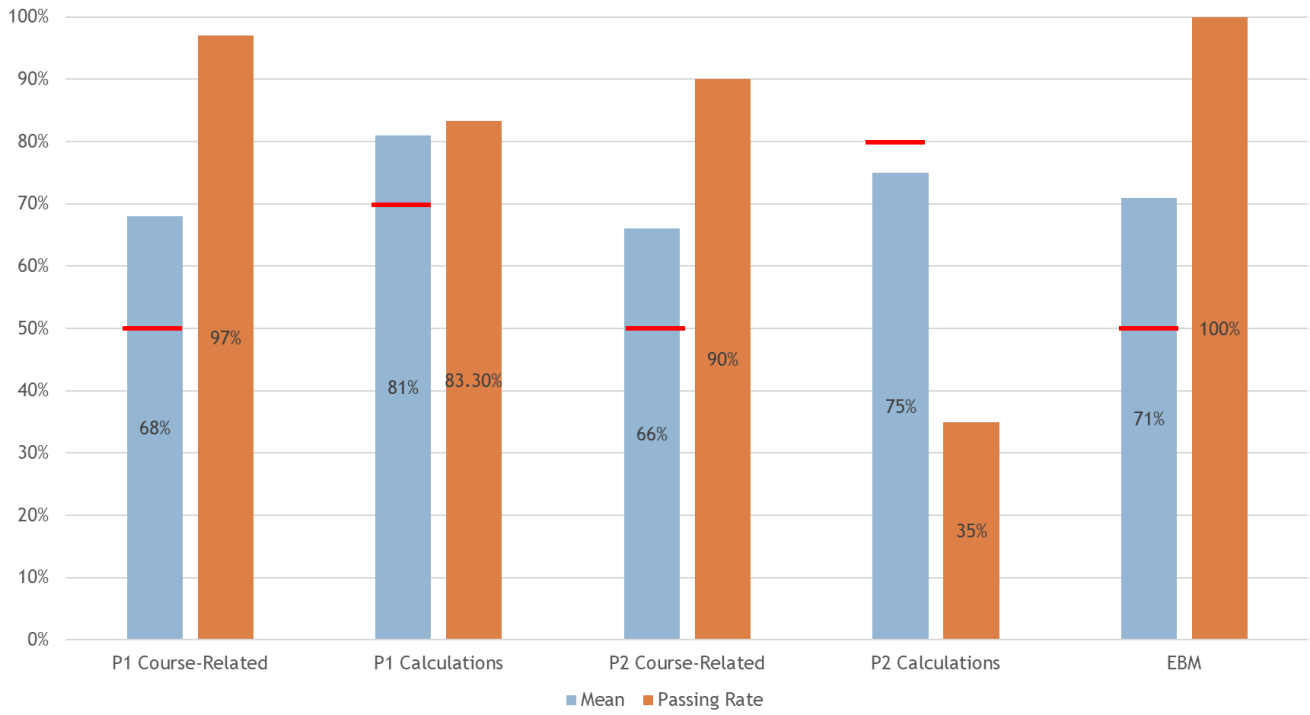
Evidence-Based Medicine (50% passing threshold):

Mean: 71%

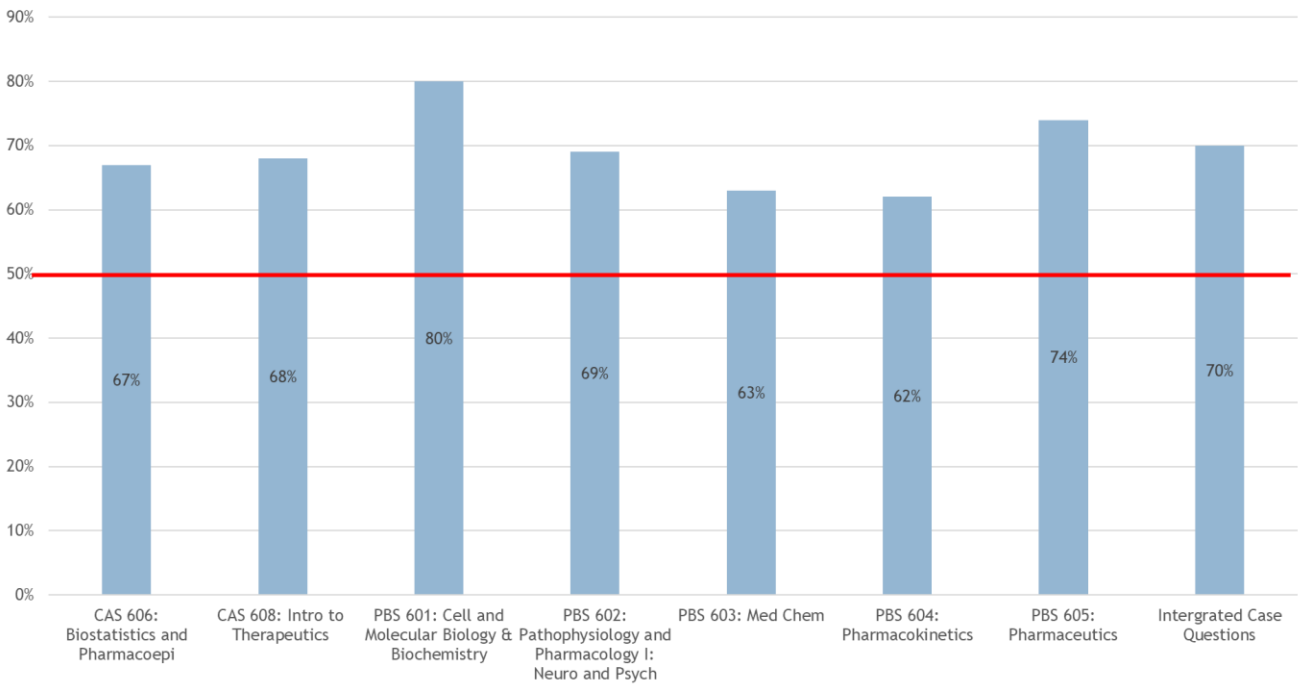
Range: 50-95%

100% pass rate

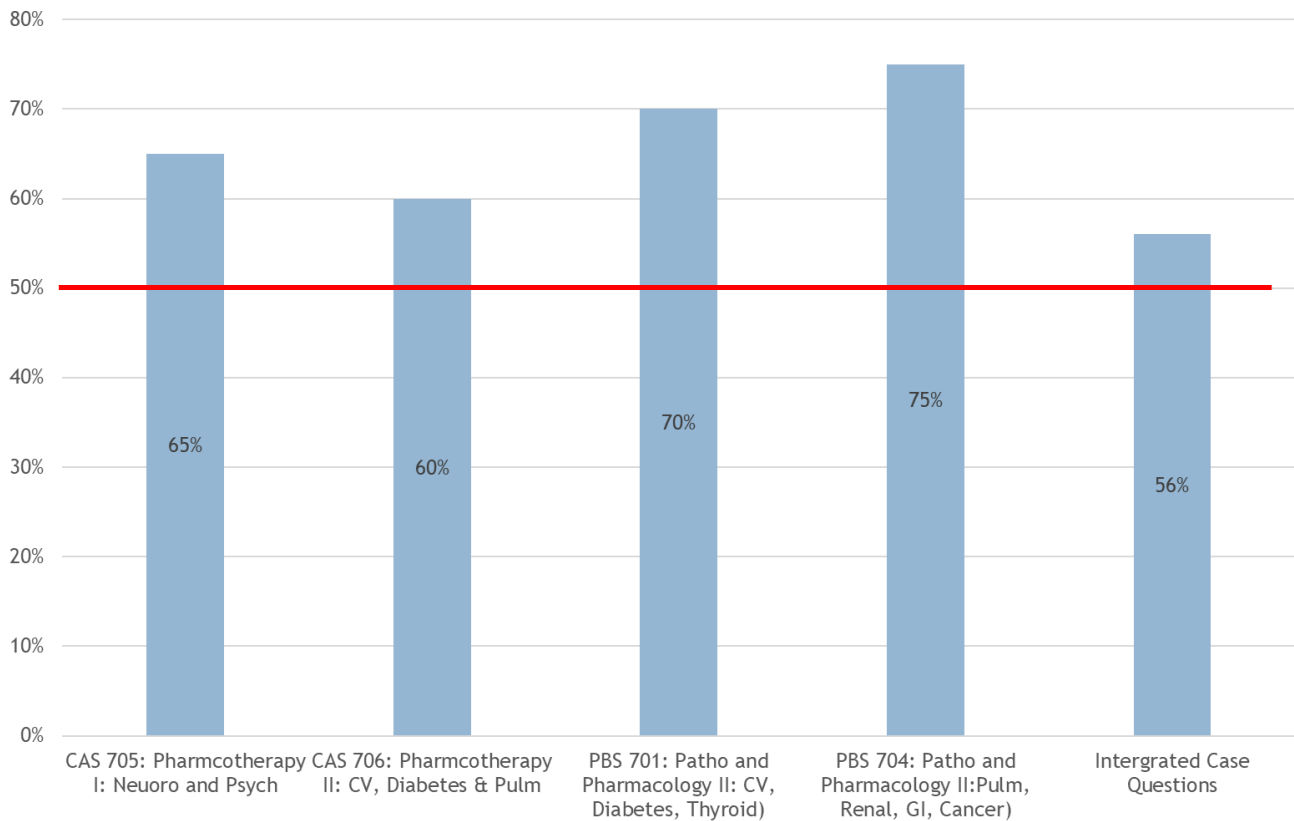
Average Milestone Performance



P1 Course-Related Section



P2 Course-Related Section



Actions based on the results:

- Student received a comprehensive report detailing their individualized performance overall and on specific components and topics relative to their classmates.
- All respective course coordinators will receive a course specific reports of student performance on questions corresponding to their courses.
- These results will be addressed in course actions plans submitted to the curriculum committee for approval along with their syllabi in the subsequent academic year.
- In general, the exam ran fairly smoothly. Though there were several issues sending individualized reports to students.
- Some miscommunication occurred in terms of Calculations section preparation

IV. Student performance on 2022 Board Examinations

A. NAPLEX

1) Context

- NAPLEX blueprint with 6 content areas was new, published in late 2021, providing schools a relatively short window to adjust
- COVID-19 (spread in early 2020, vaccines became widely available in early 2021) significantly affected CO2021
- Major P3 disruption, especially with PRC810, which contains many summative performance-based assessments to determine APPE preparedness. Many of these were either cancelled or significantly complexity level diminished
- Some disruption to rotations during the P4 year
- The effectiveness of curricular changes implemented over the last couple of years may not be realized as most did not affect CO2021

2) Recent Curricular Changes Possibly Affecting Board Examination Performance

a. PRC 613 Pharmaceutical Calculations

- i. The course Type was changed from a regular didactic to a PRC course (to increase the in-class practice time for students).
- ii. Credit Units Increased from 1 to 1.5 units.
- iii. When? Fall of 2021 (CO2024)

b. CAS 812 Applied Clinical PK and Calculations

- i. Newly developed 1 unit course. (1 Credit unit has been reduced from PBS 803 and dedicated for creating the new Applied Clinical PK and Calculations course).
- ii. When? Spring of 2021 (CO2022)
- iii. Further increase from 1 units to 2 units starting in spring of 2023 (CO2024)

c. APP 910/911 Advanced Pharmacy Practice Experience: Conference I/II

- i. Newly added 0.5-unit courses.
- ii. Seminar courses aligned with APPE rotations which encompasses
 1. conference meetings with Faculty &/or preceptors

- 2. LPPK assignments / exams
- 3. Final board style comprehensive exam in November/December as well as the Qualifying exam series
- iii. When? Fall of 2020/Spring 2021 (CO2021)
- iv. Course modified in for the AY 2021-2022 (CO2022)
- v. Significantly modified for AY 2022-2023
- vi. Increase to 1 units each
- vii. Greater alignment with rotations and small group discussion with faculty members
- viii. LPPK repurposed to IRATs and IBATs
- ix. Addition of longitudinal calculations modules
- x. Addition of student presentations based on their rotations
- xi. Course aligned with PASSNAPLEXNow Material
- d. P1 Milestone:
 - i. Separate calculations section incorporated into the P1 Milestone Examination
 - ii. When? Summer 2020 (applied for the P2 milestone for the class of 2022)
- e. P2 Milestone
 - i. Separate calculations section to be incorporated into the P2 Milestone Examination
 - ii. When? Summer 2022 (CO 2024)
- f. Calculations Certificate
 - i. PRC613 (Pharmaceutical Calculations Course), PRC609 (Longitudinal Practicum I- Rx calculations: applied for nonsterile compounding), PRC610 (Longitudinal Practicum II- IV Sterile Compounding Calculations), PRC709 (Longitudinal Practicum III- CrCl Calculations), CAS812 (Longitudinal Practicum VII- applied clinical PK, applied biostatistics calculations, TPN calculations)
 - ii. When? Spring 2021 (CO2022)
- g. Continuous improvements to the PRC to improve student performance in developing a SOAP note and calculations became a required skill, requiring proficiency via assessment to pass the courses
 - i. When? Spring 2020

1. First Attempt Pass Rates

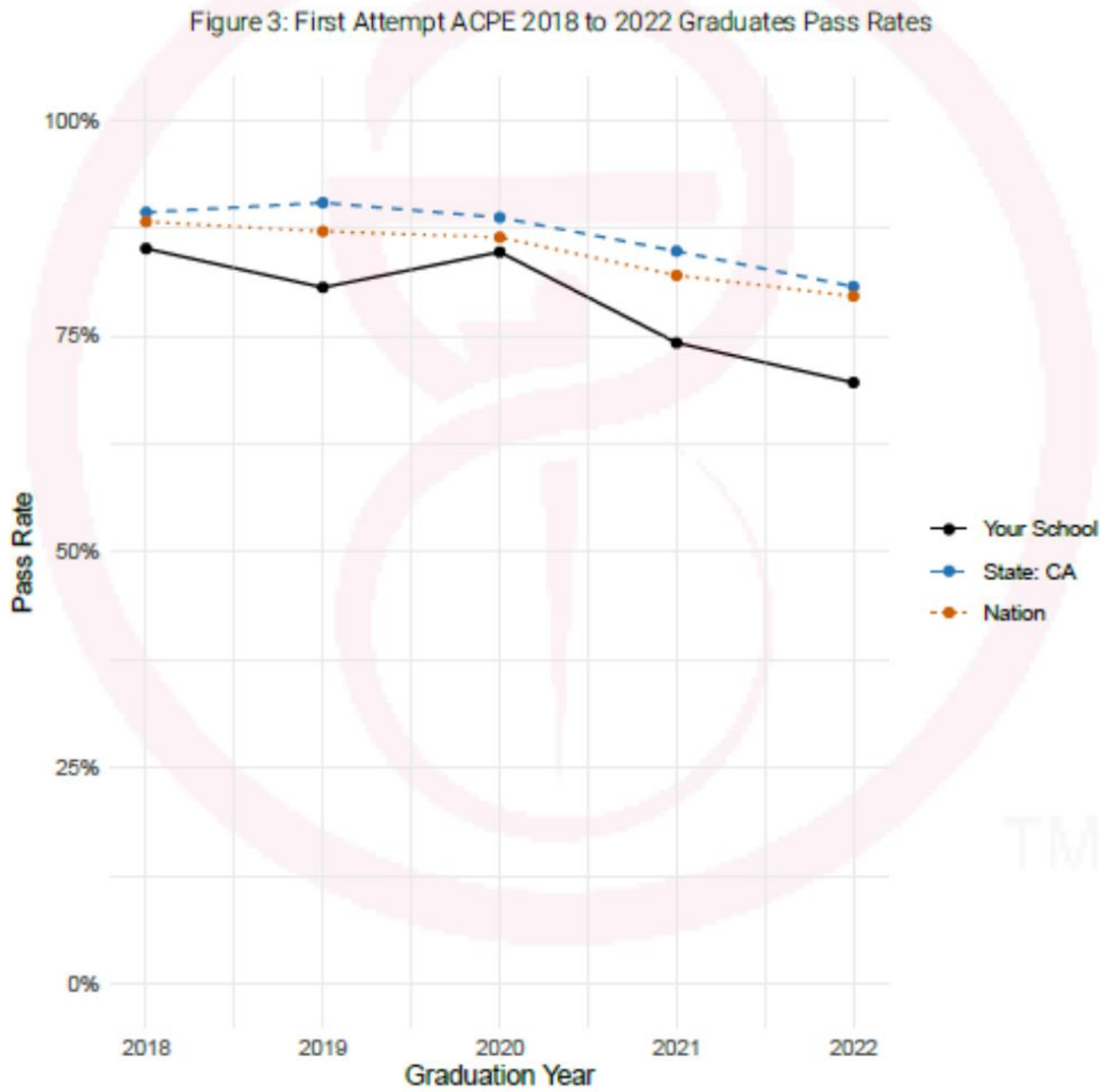


Table 2: First Attempt ACPE 2022 Graduates Pass Rates

Aggregation	% Pass (n)
Your School	69.6% (138)
State: CA	80.7% (1190)
Nation	79.6% (12548)

	2019	2020	2021
vs. State	-9.9%	-4.1%	-9.5%
Vs. Nation	-6.4%	-1.8%	-6.5%

2. All Attempts Pass Rates

Figure 5: All Attempt ACPE 2018 to 2022 Graduates Pass Rates

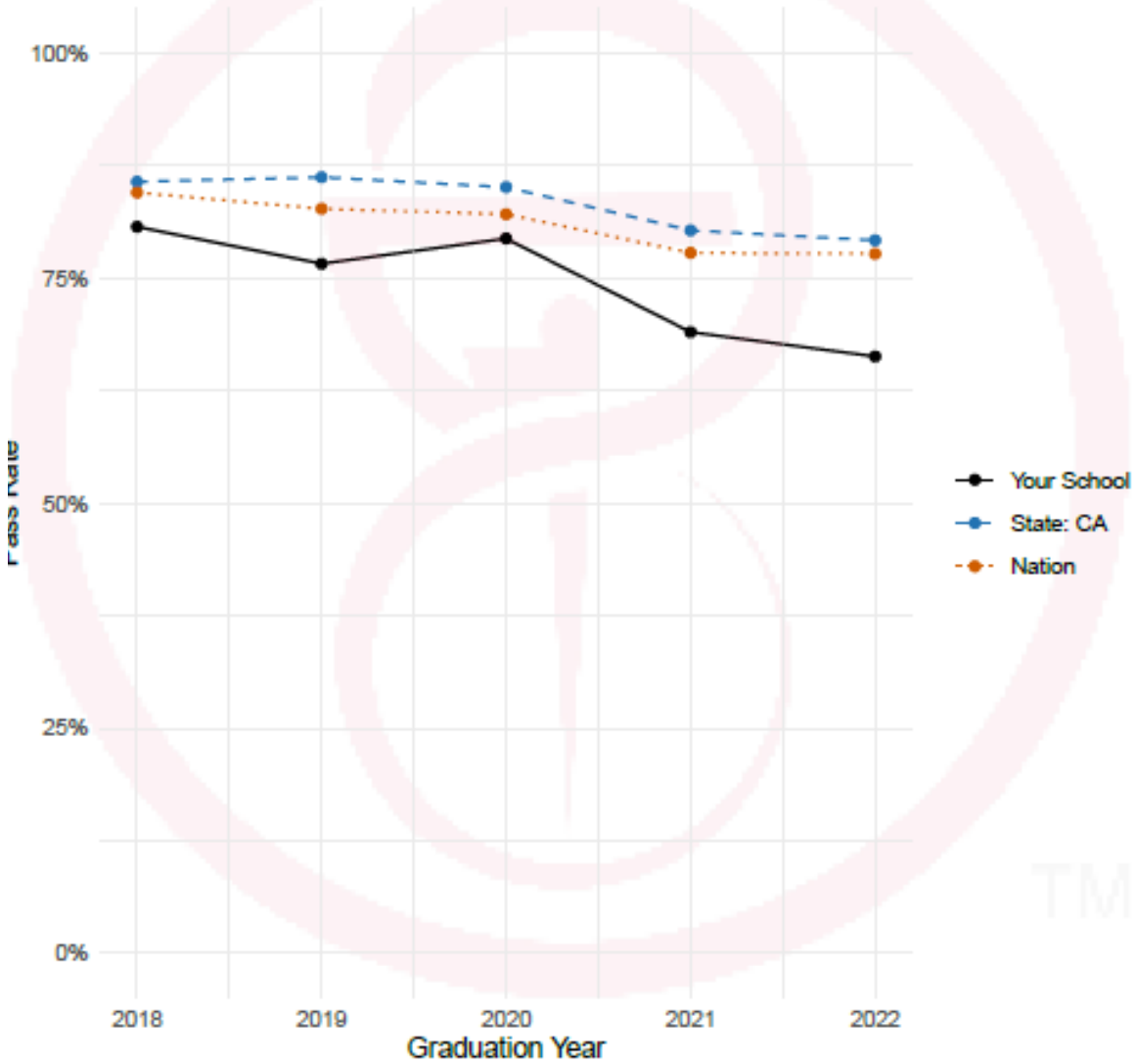


Table 7: All Attempts ACPE 2022 Graduates Pass Rates

Aggregation	% Pass (n)
Your School	66.3% (160)
State: CA	79.2% (1304)
Nation	77.7% (14252)

CNUCOP vs.	2019	2020	2021
State	-11.2%	-6%	-12.7%
Nation	-6.5%	-3.2%	-9.9%

All attempts vs. 1 st time	2019	2020	2021
School	-5.9%	-6.8%	-6.7%
State	-4.6%	-4.9%	-3.5%

3. Pass Rates by Time Between Graduation and Examination

Figure 1: First Attempt Pass Rate of 2022 Graduates by Months between Graduation and Examination

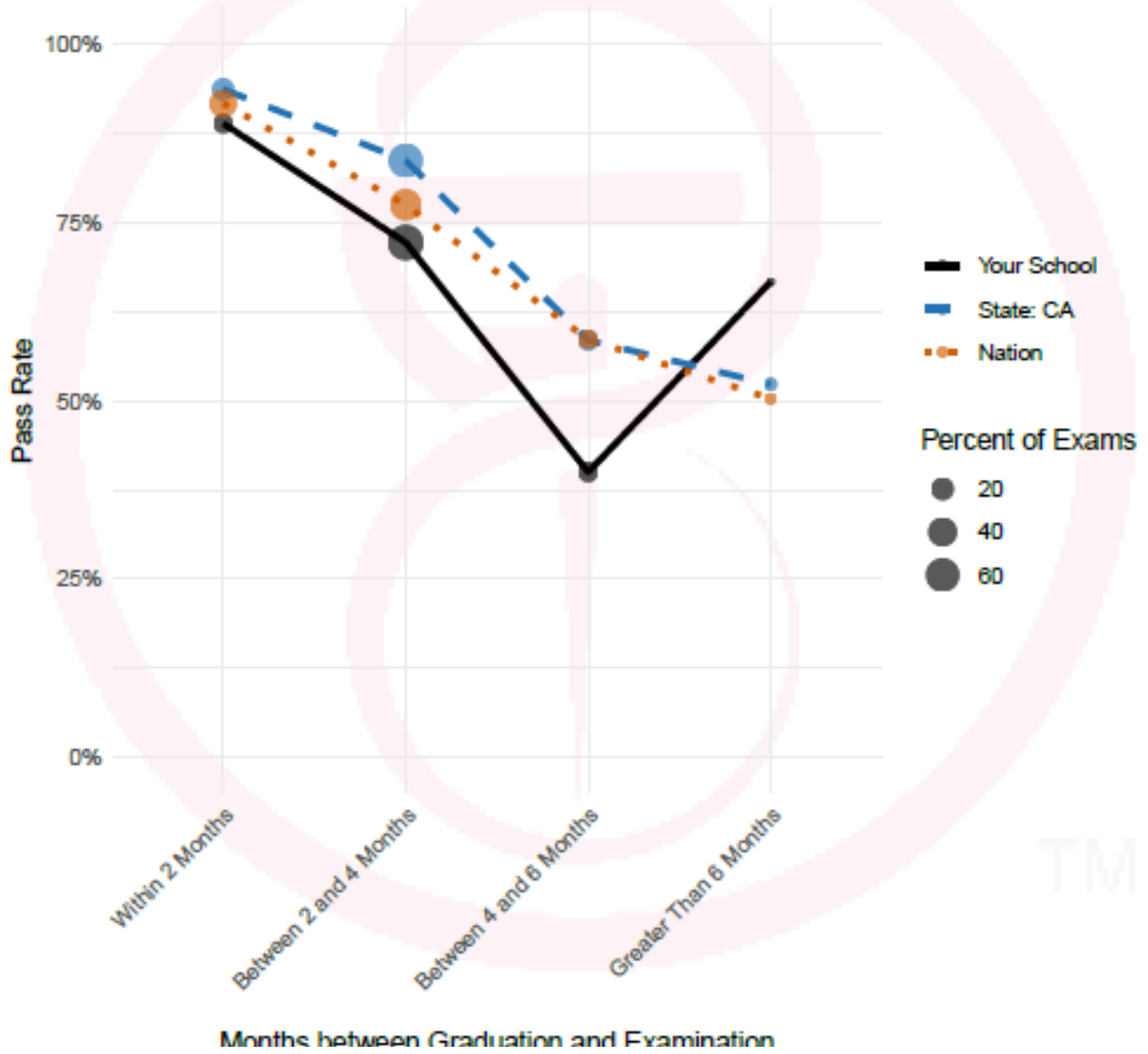
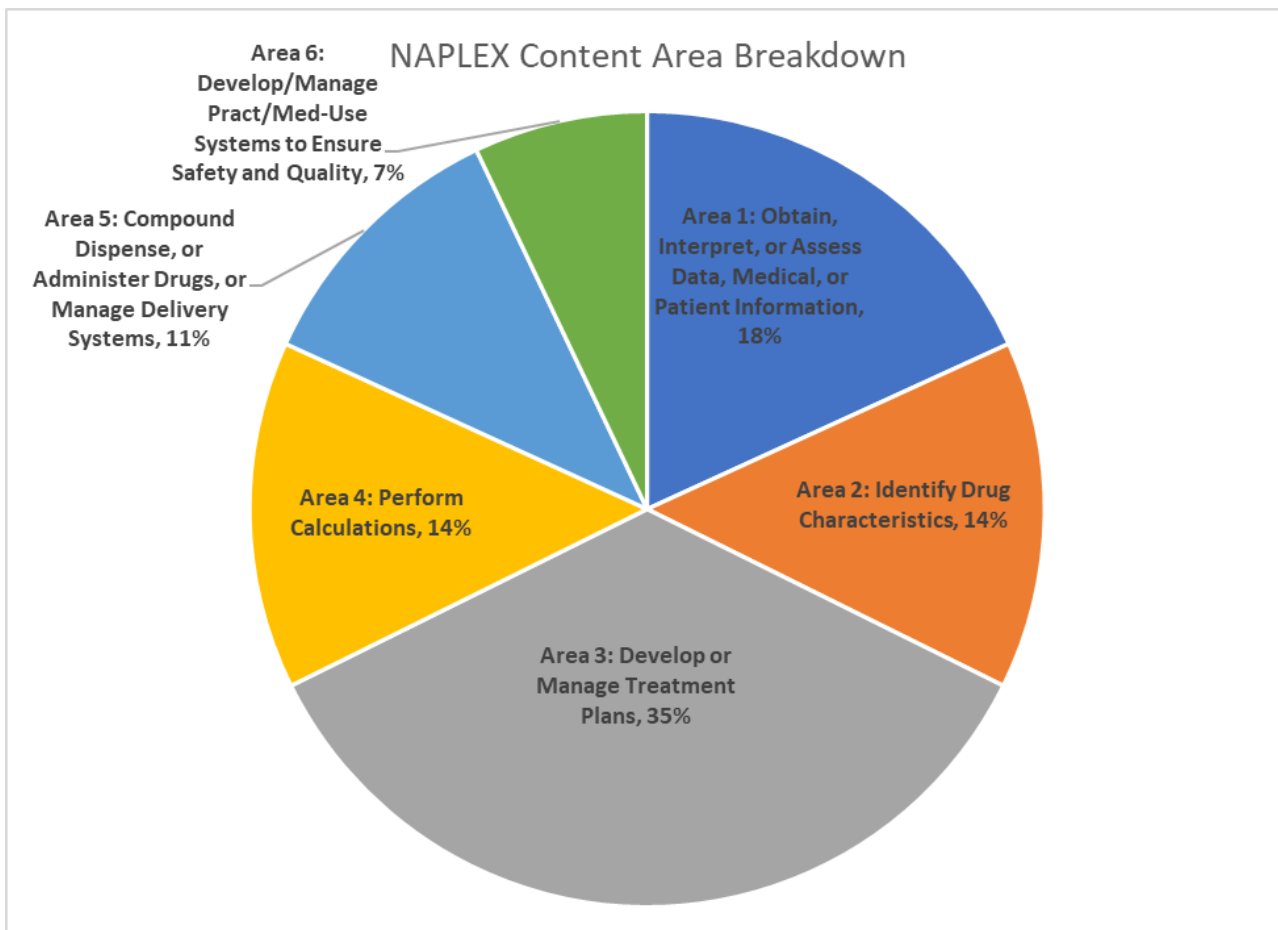


Table 3: First Attempt Pass Rate of 2022 Graduates by Months between Graduation and Examination

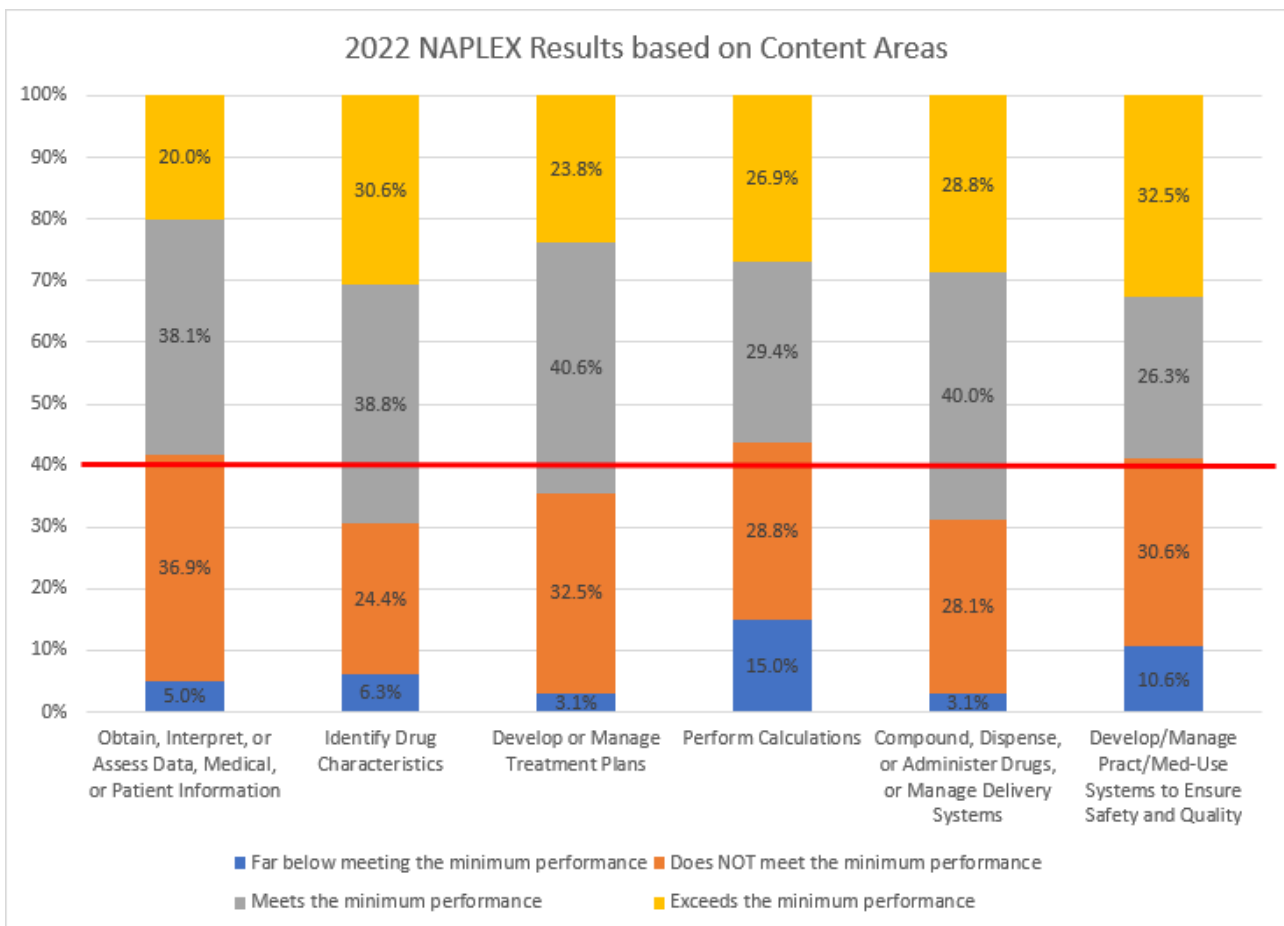
Months To Examination	Your School % Pass (n)	State: CA % Pass (n)	Nation % Pass (n)
Within 2 Months	88.9% (18)	93.7% (223)	91.7% (4424)
Between 2 and 4 Months	72.2% (97)	83.7% (747)	77.5% (6322)
Between 4 and 6 Months	40.0% (20)	58.5% (176)	58.6% (1456)
Greater Than 6 Months	66.7% (3)	52.3% (44)	50.3% (346)

4. Content Area Breakdown



5. Comparison of Percentage of School and National Graduates in each Achievement Level by NAPLEX Domains

- Level 1: Performance at this level is far below meeting the minimum performance necessary to demonstrate competency.
- Level 2: Performance at this level does NOT meet the minimum performance necessary to demonstrate competency.
- Level 3: Performance at this level meets the minimum performance necessary to demonstrate competency.
- Level 4: Performance at this level exceeds the minimum performance necessary to demonstrate competency.



6. Assessment

- In general, performance on the NAPLEX was slightly weaker relative to previous years

- Especially weaker in terms of “All Attempts” as compared to “1st time attempts”
- Especially when it comes to students taking the NAPLEX past 90 days after graduation
- Data suggestions that stronger and average CNUCOP students perform just as well as stronger and average students in the state and across the nation; however, the weaker students from CNUCOP appear to perform especially poorly relative to weaker students in the state and across the nation
- Performance on domains 2, 3, and 5 was relatively stronger
- Performance on domains 1, 4 and 6 was relatively weak

NAPLEX Content Area Subcategories: Area 1 – Obtain, Interpret, or Assess Data, Medical, or Patient Information

- 1.1 – From instruments, screening tools, laboratory, genomic or genetic information, or diagnostic findings
- 1.2 – From patients: treatment adherence, or medication-taking behavior; chief complaint, medication history, medical history, family history, social history, lifestyle habits, socioeconomic background
- 1.3 – From practitioners: treatment adherence, or medication-taking behavior; chief complaint, medication history, medical history, family history, social history, lifestyle habits, socioeconomic background
- 1.4 – From medical records: treatment adherence, or medication-taking behavior; chief complaint, medication history, medical history, family history, social history, lifestyle habits, socioeconomic background
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- 1.6 – Risk factors or maintenance of health and wellness
- 1.7 – Evidence-based literature or studies using primary, secondary, and tertiary references

NAPLEX Content Area Subcategories: Area 4 – Perform Calculations

- 4.1 – Patient parameters or laboratory measures
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- 4.4 – Dose conversions
- 4.5 – Drug concentrations, ratio strengths, osmolarity, osmolality, or extent of ionization
- 4.6 – Quantities of drugs or ingredients to be compounded
- 4.7 – Nutritional needs and the content of nutrient sources
- 4.8 – Biostatistics, epidemiological, or pharmacoeconomic measures
- 4.9 – Pharmacokinetic parameters

NAPLEX Content Area Subcategories: Area 6 – Develop or Manage Practice or Medication-Use Systems to Ensure Safety and Quality

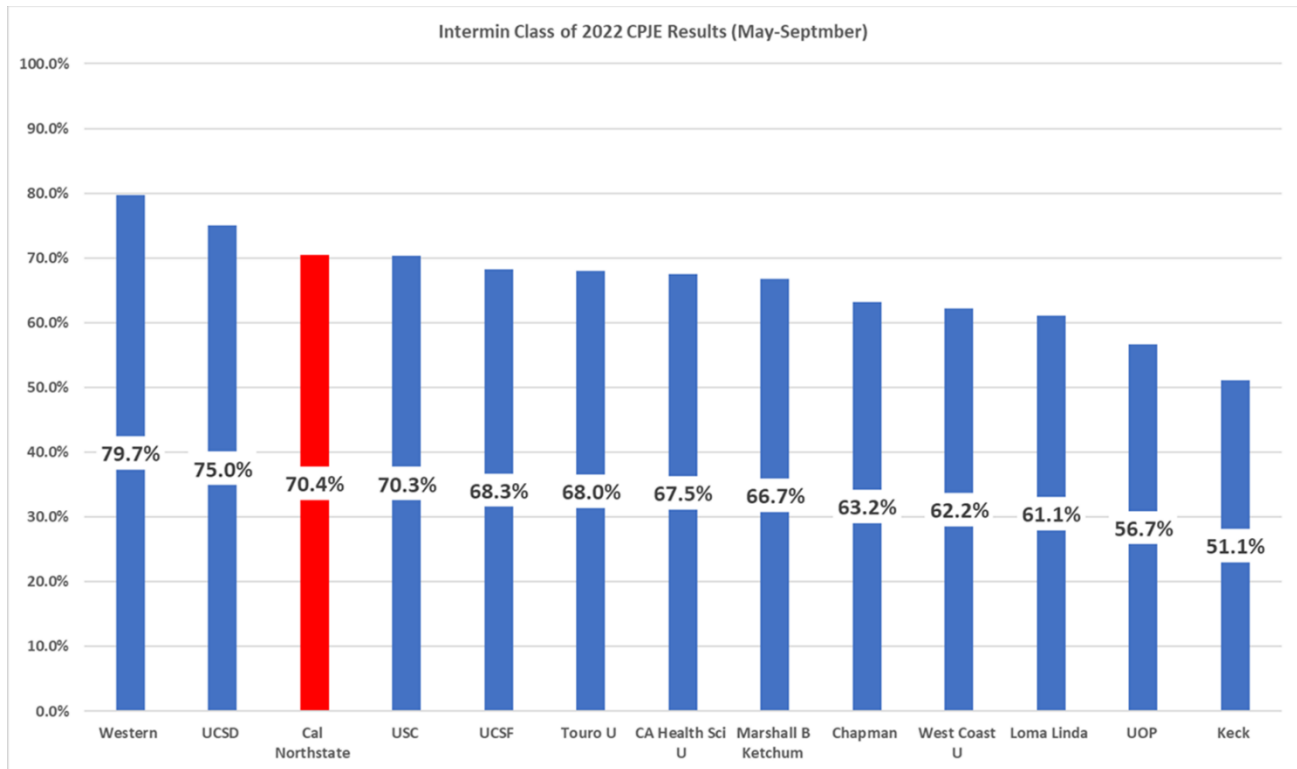
- 6.1 – Interdisciplinary practice, collaborative practice, or expanded practice responsibilities
- 6.2 – Continuity of care or transitions of care
- 6.3 – Disease prevention or screening programs; or stewardship
- 6.4 – Vulnerable populations, special populations, or risk prevention programs
- 6.5 – Pharmacy informatics

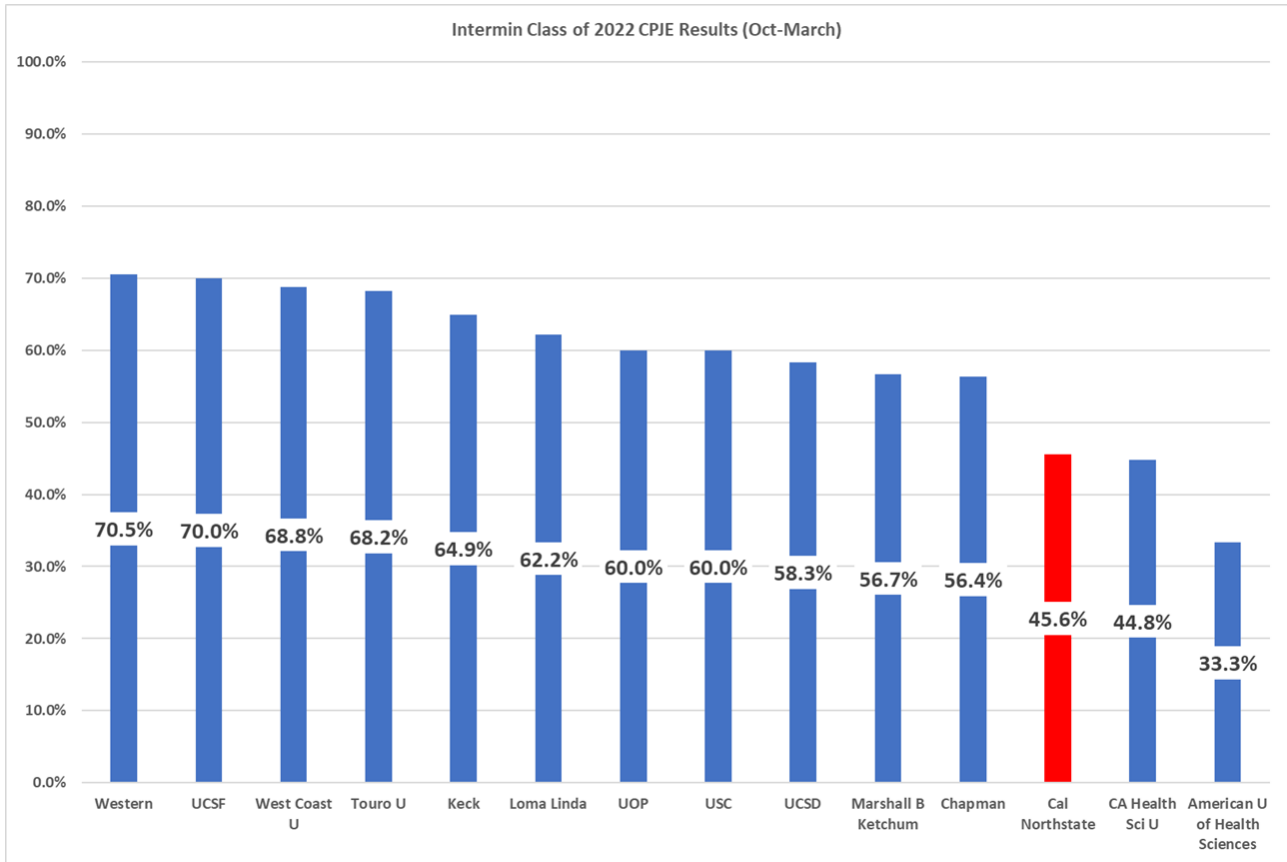
7. Action Plan

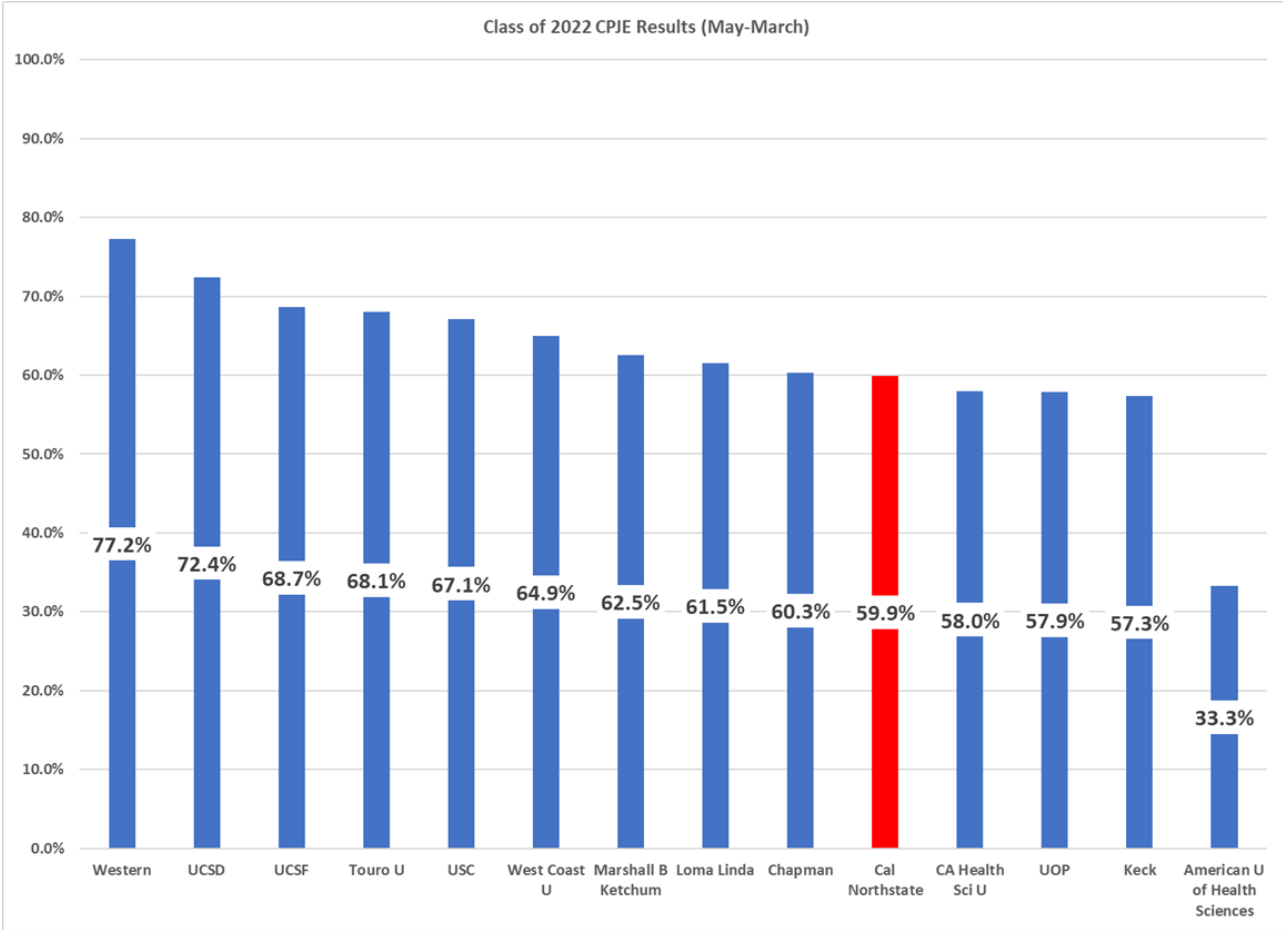
1. Require students that fail to pass the qualifying exam with a score of <40% or <50%, to undergo remediation
2. Develop calculations assessments in the P3 year as standalone assessments (APROVED by ASSESSEMENT COMMITTEE TIMING and PLACEMENT to be DETERMINED)
3. Adjust/increase the weight of Qualifying Exams within APP 911 course. Currently at 15% in Spring of 2022
4. Reconcile the NAPLEX content area mapping with the curriculum to the student performance on the NAPLEX (IN PROGRESS, to be COMPLETED with the 2022 fall syllabi review process)
5. Consider these results while discussing the passing threshold on the calculations assessments within PRC courses (Approved with 70% threshold for P1s, 80% for P2s and P3s)
6. Milestone calculation component thresholds likewise modified based on NAPLEX results (70% threshold for P1 milestone, 80% for P2 milestone)
7. Revisit structure of calculations certificate to ensure that it adds value in terms of APPE rotations and board examinations as well, possibly incorporate assessment within #2
8. Survey recent graduates and ask if they passed the Board Examinations, and if so, how they prepared (COMPLETED)
9. Share results and initiatives implemented to address results with students, including the results of the survey in #8
10. Purchase 100 question practice NAPLEX developed by NABP for \$75 and ascertain if related questions are covered in the Curriculum, confirm legality of this initiative if question are not copied or transmitted in any way

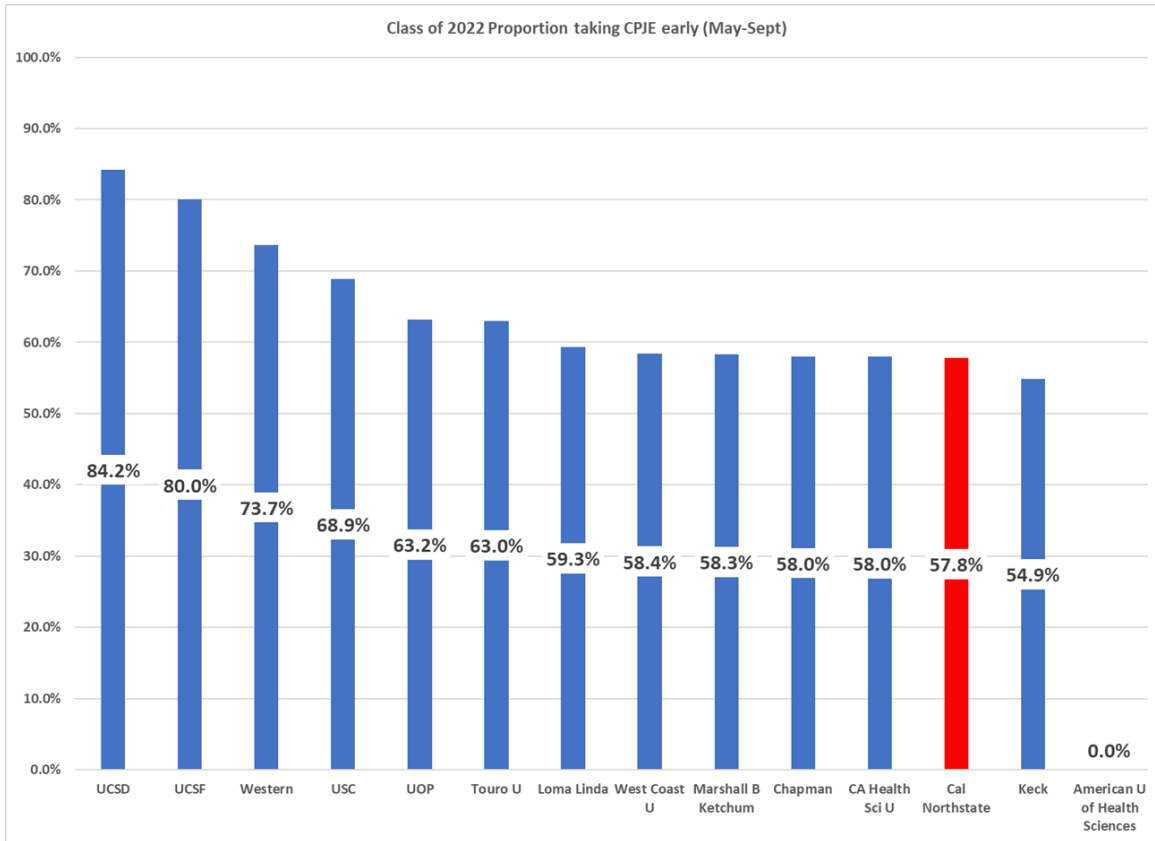
B. CPJE Results

Analysis: CNUCOP student performance on the CPJE examination has been very close to the national average as well as relative to other schools in California. In 2022, within the first six months after graduation CNUCOP students performed quite well relative to the rest of the state. However, during the next 6 months CNU students demonstrated some of the worst performances relative to the rest of the state, resulting in an annual pass rate of 59.9%, which was 10th in the state out of 14 pharmacy schools.









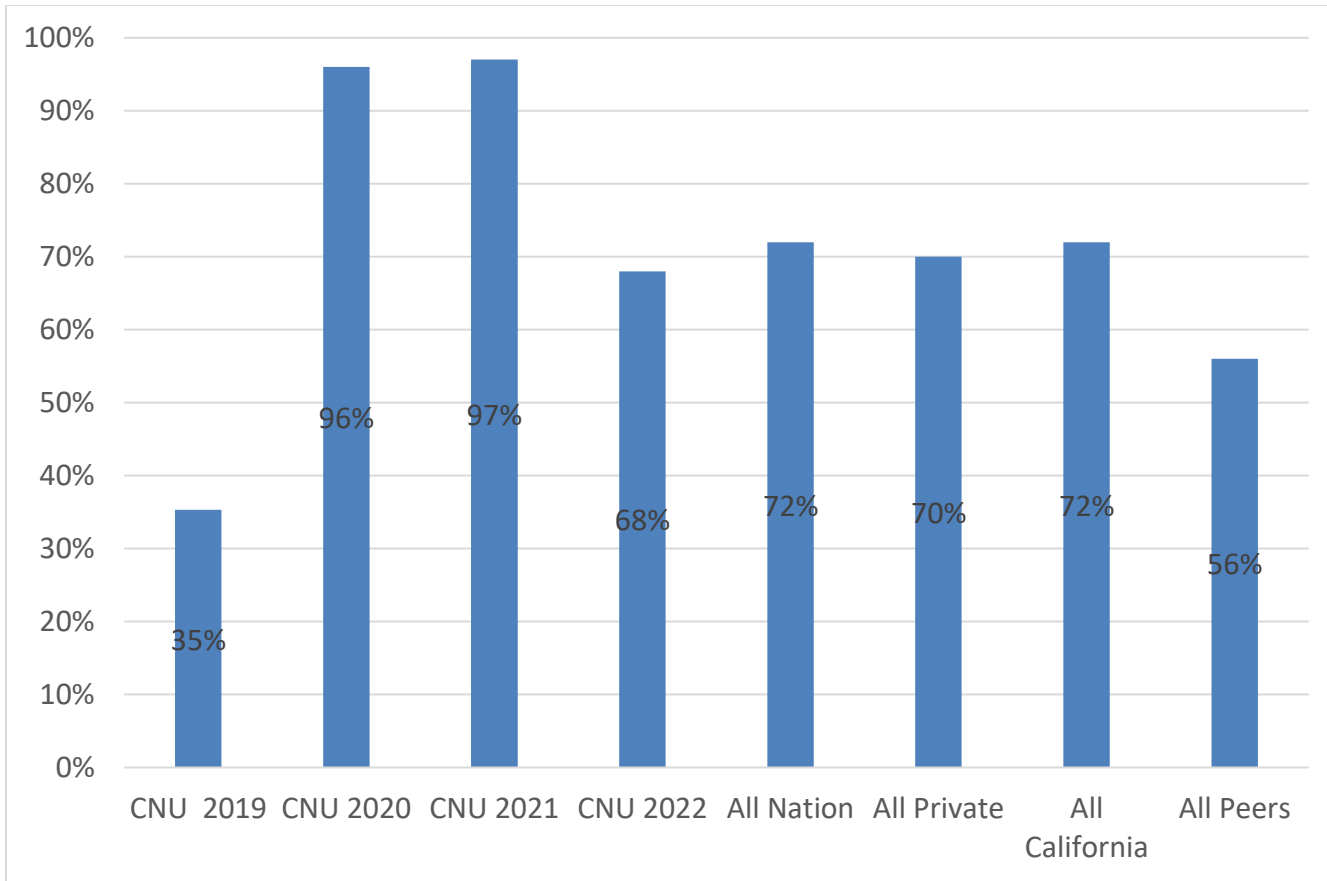
V. 2022 AACP Graduating Student Survey Report

- 2022 AACP Graduating Student Survey was administered in the spring to the P4 class
- Trend was measured over the last 4 years (2018-2021)
- Results compared to national average, private schools only, California schools only, and peers (newer private schools in California)
- 68% response rate, relative to a 97% response rate in 2021, a 96% response rate in 2020, and a 72% national response rate
- For nearly all areas of interest a slight, though not significant, upward trend over the last several years was observed achieving virtually identical results to the national average and other pertinent cohorts of comparison, though a decrease of about 10% from the previous year was observed
- Results for questions regarding communication appears to be especially weak
- For the following questions the results were >10% below the national average:
 10. Assess the health needs of a given patient population.
 17. Recognize and address cultural disparities in access to and delivery of healthcare.
 44. The college/school of pharmacy provided timely information about news, events and important matters within the college/school of pharmacy.
 45. Information was made available to me about additional educational opportunities (e.g., residencies, fellowships, graduate school).
 46. The college/school's administration responded to problems and issues of concern to the student body.
 47. I was aware of the process for raising issues with the college/school administration.
 48. I was aware that student representatives served on college/school committees with responsibility for curriculum and other matters.
 51. The college/school of pharmacy had processes to communicate student perspectives to the faculty or administration.
 52. Faculty, administrators and staff served as positive role models for students.
 58. The college/school's faculty and administration encouraged me to participate in regional, state or national pharmacy meetings.
 59. The college/school of pharmacy was supportive of student professional organizations.
 62. The information technology resources provided by the college/school of pharmacy and/or elsewhere on campus were conducive to learning.
 65. The study areas in the college/school of pharmacy or elsewhere on campus were conducive to learning.
 66. The common spaces such as lounges, lobbies or other areas for relaxation and socialization available in the college/school of pharmacy or elsewhere on campus met my needs.
 67. Access to educational resources (e.g., library, electronic data bases) was conducive to learning.
 71. If I were starting my pharmacy program over again I would choose the same college/school of pharmacy.
- Results for none of questions demonstrated a downward trend:
 44. The college/school of pharmacy provided timely information about news, events and important matters within the college/school of pharmacy.

- 45. Information was made available to me about additional educational opportunities (e.g., residencies, fellowships, graduate school).
- 46. The college/school's administration responded to problems and issues of concern to the student body.
- 59. The college/school of pharmacy was supportive of student professional organizations.
- 71. If I were starting my pharmacy program over again I would choose the same college/school of pharmacy.

- None of the questions demonstrated results >5% above the national average:
- For the following questions an upward trend was observed:
 - 41. College/school provided access to accommodation services as defined by the Americans with Disabilities Act (ADA).
 - 43. College/school provided access to student health and wellness services (e.g., immunizations, counseling services, campus pharmacy, primary care clinics, etc.).
 - 56. The college/school of pharmacy had an effective process to manage academic misconduct by students (e.g., plagiarism).
 - 64. The laboratories and other non-classroom environments were conducive to learning.
- Qualitative Summary:
 - Several students expressed a positive experience working on IPE events with nurses
 - In terms of the curriculum and pharmacy practice the comments were mixed, some expressed feeling unprepared while others expressed a good experience, no other specific patterns were identified
 - Quite a few students complained about not being able to receive federal loans as well as poor with communication
 - For the overall experience comments were mixed, several students expressed a positive experience but quite a few complained about poor communication, financial issues, financial shadiness, disorganized and uncaring administration and faculty, graduation being in the parking lot, and underfunding of student organizations

Response Rate

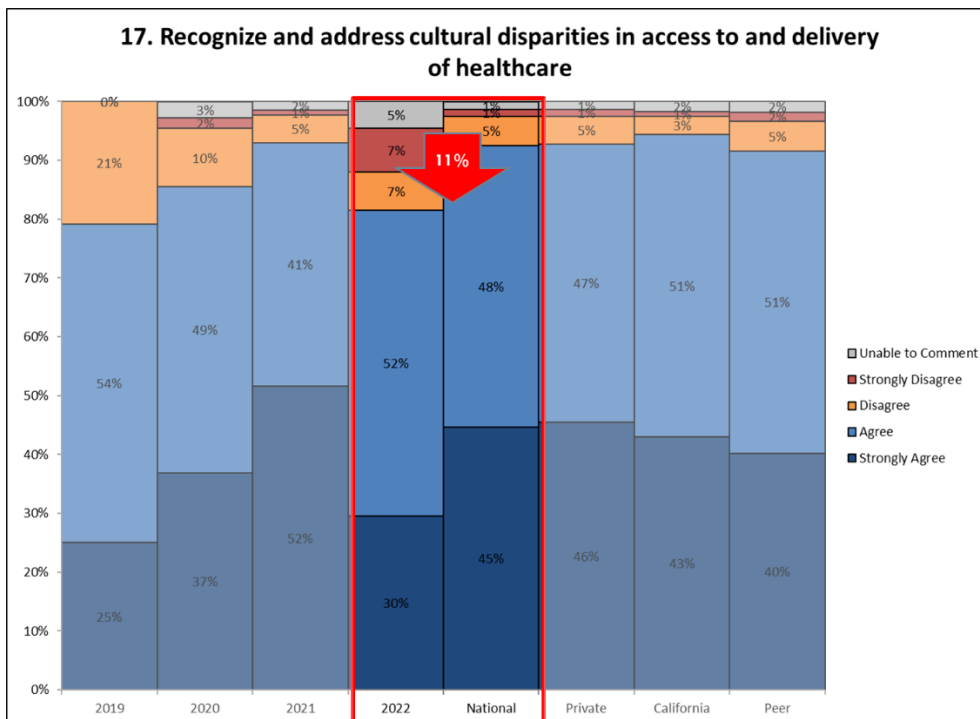
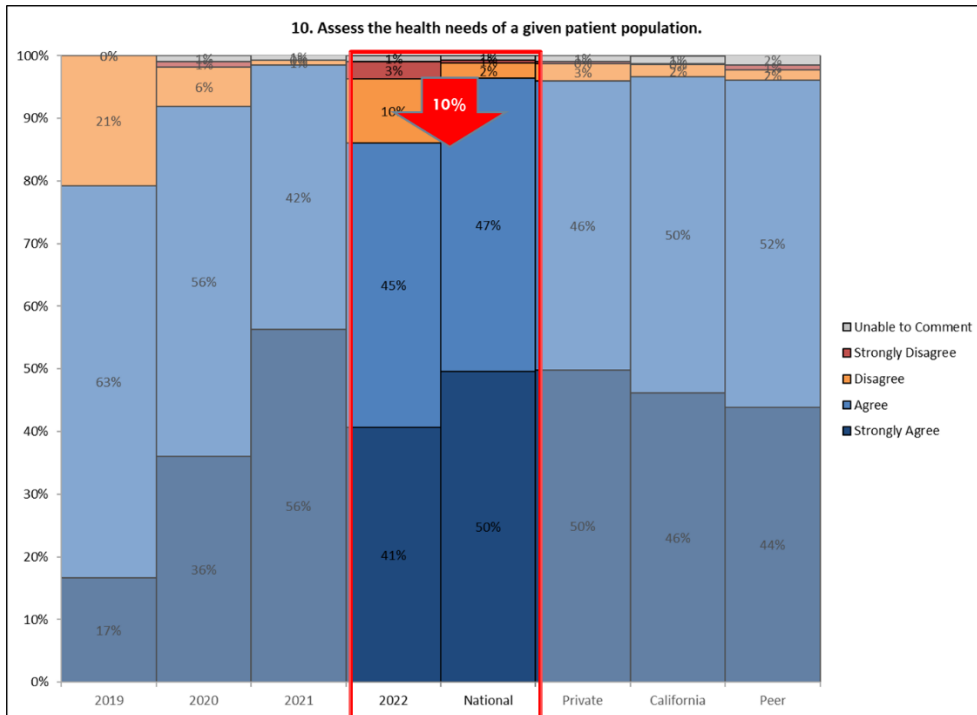


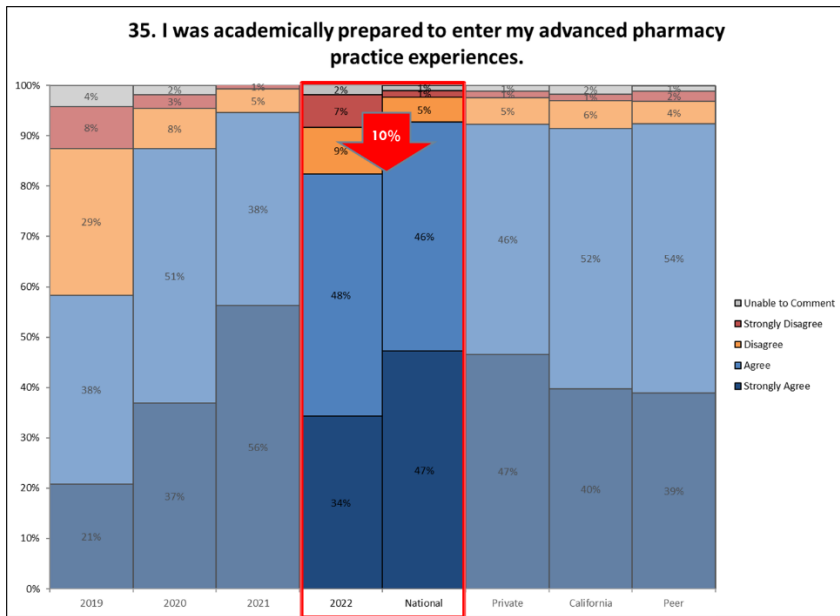
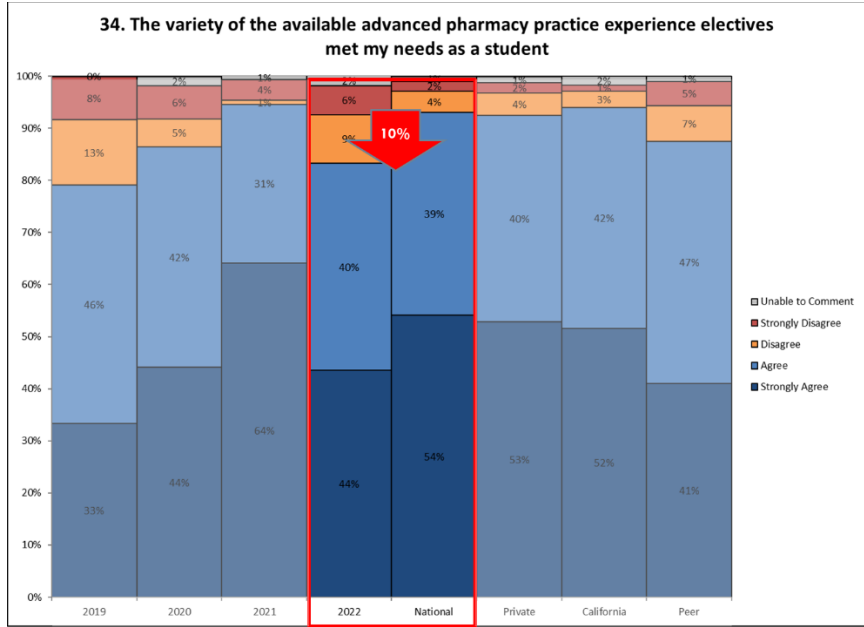
Question	CNU 2019	CNU 2020	CNU 2021	CNU 2022	All Nat.	All Priva.	All Cali .	Cali. Peers	Diff. to Nation	>10% Below Nation	Down. Trend	>5% Above Nation	Up. Trend	ACPE	Primary Action Plan Responsibility
Response Rate	35%	96%	97%	68%	72%	70%	72%	56%							
Required Interprofessional Education															
3. The learning experience with other professions students helped me gain a better understanding of how to be part of a multi-disciplinary team to improve patient outcomes.	83%	91%	95%	90%	94%	95%	95%	93%	-4%						Office of IPE
Professional Competencies/Outcomes/Curriculum															
4. Apply knowledge from the foundational pharmaceutical and biomedical sciences to the provision of patient care.	75%	96%	100%	93%	98%	97%	98%	97%	-5%						Curriculum
5. Apply knowledge from the clinical sciences to the provision of patient care.	79%	96%	99%	93%	98%	98%	98%	97%	-5%						Curriculum
6. Evaluate scientific literature.	79%	96%	99%	94%	95%	95%	96%	96%	-1%						Curriculum
7. Provide medication expertise as part of patient-centered care.	83%	96%	98%	94%	98%	98%	99%	98%	-4%						Curriculum
8. Optimize the safety and efficacy of medication use systems (e.g., dispensing, administration, effects monitoring) to manage patient healthcare needs.	79%	95%	98%	94%	97%	97%	98%	97%	-3%						Curriculum
9. Design strategies to manage chronic disease and improve health and wellness.	75%	96%	98%	91%	97%	97%	98%	96%	-7%						Curriculum
10. Assess the health needs of a given patient population.	79%	92%	99%	86%	96%	96%	97%	96%	-10%	X					Curriculum
11. Provide patient-centered care based on evidence-based best practices.	79%	98%	99%	93%	98%	98%	98%	98%	-6%						Curriculum
12. Design, implement and evaluate viable solutions to patient care problems.	79%	96%	97%	92%	97%	97%	98%	95%	-6%						Curriculum
13. Use effective strategies to educate patients, healthcare professionals and caregivers to improve patient care.	83%	95%	98%	95%	98%	98%	98%	98%	-2%						Curriculum
14. Advocate for the patient best interest.	88%	94%	100%	94%	97%	97%	98%	96%	-4%						Curriculum
15. Engage as a member of an interprofessional healthcare team.	92%	92%	97%	90%	97%	97%	98%	95%	-7%						Curriculum
16. Identify cultural disparities in healthcare.	79%	88%	92%	86%	93%	93%	95%	91%	-7%						Curriculum
17. Recognize and address cultural disparities in access to and delivery of healthcare.	79%	86%	93%	82%	93%	93%	94%	92%	-11%	X					Curriculum
18. Effectively communicate (verbal, non-verbal, written) when interacting with individuals, groups and organizations.	83%	95%	99%	91%	97%	97%	98%	96%	-7%						Curriculum
19. Examine and reflect on how my behavior and choices affect my personal and professional growth.	83%	91%	95%	88%	96%	96%	97%	96%	-8%						Curriculum
20. Accept responsibility for creating and achieving shared goals.	83%	95%	96%	90%	97%	97%	97%	96%	-7%						Curriculum
21. Develop new ideas and approaches to practice.	75%	88%	95%	89%	93%	93%	93%	92%	-4%						Curriculum

22. Act in a manner consistent with the trust given to pharmacists by patients, other healthcare providers and society.	88%	97%	100%	94%	98%	98%	98%	98%	-4%						Curriculum
23. I developed the skills needed to prepare me for continuous professional development and self-directed life-long learning.	79%	94%	98%	91%	97%	97%	97%	96%	-6%						Curriculum
24. I was provided opportunities to engage in active learning (e.g., laboratories, recitations, student portfolios, problem-based learning, in-class activities).	75%	96%	98%	93%	98%	97%	98%	97%	-5%						Curriculum
25. Elective didactic courses permitted exploration of and/or advanced study in areas of professional interest.	71%	92%	91%	88%	94%	94%	95%	92%	-6%						Curriculum
Pharmacy Practice Experiences															
26. My introductory pharmacy practice experiences were valuable in helping me to prepare for my advanced pharmacy practice experiences.	79%	88%	97%	90%	88%	89%	88%	90%	2%						Experiential Education
27. My introductory pharmacy practice experiences permitted my involvement in direct patient care responsibilities in both community and institutional settings.	83%	90%	95%	90%	90%	90%	91%	90%	0%						Experiential Education
28. My introductory pharmacy practice experiences were of high quality.	71%	82%	91%	82%	86%	86%	87%	87%	-4%					X	Experiential Education
29. In the community pharmacy setting, I was able to engage in direct patient care.	100%	98%	98%	95%	96%	96%	97%	97%	-1%						Experiential Education
30. In the ambulatory care setting, I was able to engage in direct patient care.	92%	95%	97%	87%	96%	96%	96%	95%	-9%						Experiential Education
31. In the hospital or health-system pharmacy setting, I was able to engage in direct patient care.	92%	92%	91%	87%	92%	93%	92%	89%	-5%						Experiential Education
32. In the inpatient/acute care setting, I was able to engage in direct patient care.	92%	95%	92%	90%	96%	95%	96%	93%	-6%						Experiential Education
33. The need for continuity of care (e.g., acute, chronic and wellness promoting patient care services) in outpatient and inpatient settings was emphasized in the advanced pharmacy practice experiences.	92%	94%	97%	94%	97%	97%	97%	96%	-2%						Experiential Education
34. The variety of the available advanced pharmacy practice experience electives met my needs as a student.	79%	86%	95%	83%	93%	92%	94%	88%	-10%						Experiential Education
35. I was academically prepared to enter my advanced pharmacy practice experiences.	58%	87%	95%	82%	93%	92%	92%	92%	-10%					X	Experiential Education
36. My advanced pharmacy practice experiences were of high quality.	79%	89%	96%	88%	95%	95%	94%	92%	-8%					X	Experiential Education
37. My pharmacy practice experiences allowed me to have direct interaction with diverse patient populations (e.g., age, gender, socioeconomic, ethnic and/or cultural background, disease states, etc.).	96%	96%	100%	95%	98%	98%	98%	97%	-2%						Experiential Education
38. My pharmacy practice experiences allowed me to collaborate with other health care professionals.	100%	97%	98%	95%	98%	98%	98%	96%	-2%						Experiential Education
Student Services															
39. College/school provided access to academic advising.	79%	86%	97%	85%	91%	92%	90%	91%	-5%						Office of Student Affairs
40. College/school provided access to guidance on career planning.	42%	69%	88%	72%	82%	82%	87%	82%	-10%					X	Office of Student Affairs
41. College/school provided access to accommodation services as defined by the Americans with Disabilities Act (ADA).	54%	57%	72%	70%	71%	73%	70%	80%	0%				X		Office of Student Affairs
42. College/school provided access to financial aid advising.	79%	72%	90%	82%	83%	85%	88%	92%	-2%						DEC

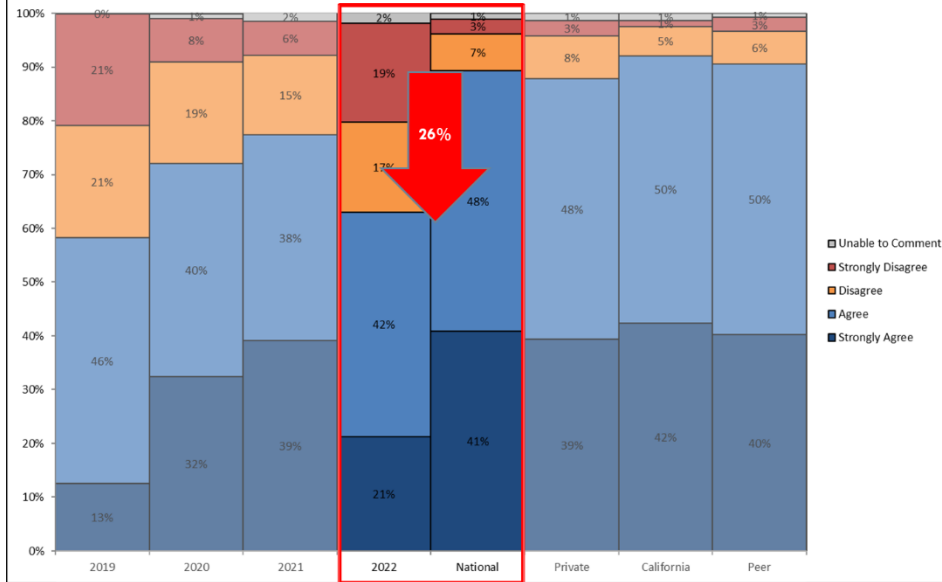
43. College/school provided access to student health and wellness services (e.g., immunizations, counseling services, campus pharmacy, primary care clinics, etc.).	54%	70%	89%	80%	89%	88%	92%	90%	-9%				X		Office of Student Affairs
The Student Experience															
44. The college/school of pharmacy provided timely information about news, events and important matters within the college/school of pharmacy.	58%	72%	77%	63%	89%	88%	92%	91%	-26%	X	X			X	Office of Student Affairs
45. Information was made available to me about additional educational opportunities (e.g., residencies, fellowships, graduate school).	79%	84%	93%	82%	93%	93%	95%	95%	-11%	X	X				Office of Student Affairs
46. The college/school's administration responded to problems and issues of concern to the student body.	29%	62%	81%	54%	81%	79%	87%	83%	-27%	X	X			X	Office of Student Affairs
47. I was aware of the process for raising issues with the college/school administration.	71%	77%	87%	70%	82%	81%	84%	87%	-12%	X				X	Office of Student Affairs
48. I was aware that student representatives served on college/school committees with responsibility for curriculum and other matters.	92%	93%	98%	86%	93%	92%	94%	95%	-7%						Office of Student Affairs
49. The college/school of pharmacy was welcoming to students with diverse backgrounds.	96%	91%	97%	86%	93%	93%	96%	95%	-7%						Office of Student Affairs
50. I know how to utilize college/school policies dealing with harassment and discrimination.	88%	86%	89%	79%	85%	86%	90%	91%	-6%						Office of Student Affairs
51. The college/school of pharmacy had processes to communicate student perspectives to the faculty or administration.	71%	80%	91%	76%	89%	88%	94%	91%	-13%	X					Office of Student Affairs
52. Faculty, administrators and staff served as positive role models for students.	67%	87%	95%	78%	93%	92%	95%	93%	-15%	X				X	DEC
53. Preceptors modeled professional attributes and behaviors.	96%	89%	99%	86%	96%	95%	95%	95%	-10%						Office of Student Affairs
54. Preceptors provided me with individualized instruction, guidance and evaluation.	96%	92%	97%	89%	96%	95%	96%	95%	-7%						Experiential Education
55. I was aware of expected behaviors with respect to professional and academic conduct.	92%	95%	99%	93%	98%	98%	98%	98%	-5%						Office of Academic Affairs
56. The college/school of pharmacy had an effective process to manage academic misconduct by students (e.g., plagiarism).	79%	80%	84%	83%	85%	86%	89%	90%	-2%				X		Office of Academic Affairs
57. The college/school of pharmacy had an effective process to manage professional misconduct by students (e.g., repeated tardiness/absences, drug diversion).	79%	77%	86%	76%	84%	85%	89%	88%	-8%						Office of Academic Affairs
58. The college/school's faculty and administration encouraged me to participate in regional, state or national pharmacy meetings.	79%	76%	89%	74%	90%	89%	94%	92%	-16%	X					Office of Student Affairs
59. The college/school of pharmacy was supportive of student professional organizations.	79%	73%	84%	70%	96%	95%	97%	94%	-26%	X	X				Office of Student Affairs
60. I was aware of opportunities to participate in research activities with faculty.	92%	91%	93%	83%	85%	86%	91%	92%	-2%						Research
Facilities, Experiential Sites and Educational Resources															
61. My campus learning environment was safe.	88%	99%	99%	95%	97%	96%	98%	96%	-2%						DEC
62. The information technology resources provided by the college/school of pharmacy and/or elsewhere on campus were conducive to learning.	79%	89%	91%	79%	96%	95%	97%	95%	-17%	X					DEC

63. The classrooms in the college/school of pharmacy or elsewhere on campus were conducive to learning.	79%	92%	95%	88%	95%	94%	96%	96%	-7%						DEC
64. The laboratories and other non-classroom environments were conducive to learning.	75%	86%	92%	89%	96%	95%	95%	95%	-7%				X		DEC
65. The study areas in the college/school of pharmacy or elsewhere on campus were conducive to learning.	75%	84%	87%	82%	94%	93%	96%	94%	-11%	X					DEC
66. The common spaces such as lounges, lobbies or other areas for relaxation and socialization available in the college/school of pharmacy or elsewhere on campus met my needs.	75%	76%	83%	77%	91%	90%	92%	90%	-14%	X					DEC
67. Access to educational resources (e.g., library, electronic data bases) was conducive to learning.	79%	85%	99%	83%	97%	96%	97%	97%	-14%	X					DEC
Overall Impressions															
68. During pharmacy practice experiences, access to educational resources (e.g., library, electronic data bases) was conducive to learning.	75%	90%	98%	87%	97%	97%	98%	98%	-10%						DEC
69. I am prepared to enter pharmacy practice.	75%	95%	99%	85%	95%	94%	93%	93%	-10%						DEC
70. If I were starting my college career over again I would choose to study pharmacy.	63%	70%	81%	65%	75%	76%	73%	73%	-10%						DEC
71. If I were starting my pharmacy program over again I would choose the same college/school of pharmacy.	38%	62%	77%	53%	83%	78%	87%	78%	-30%	X	X			X	DEC

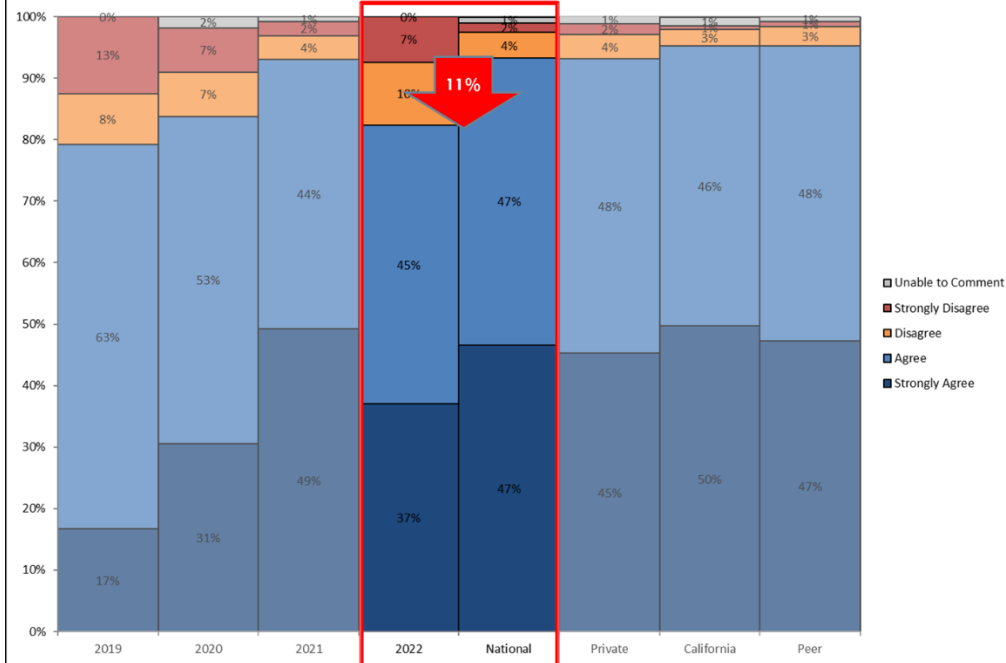




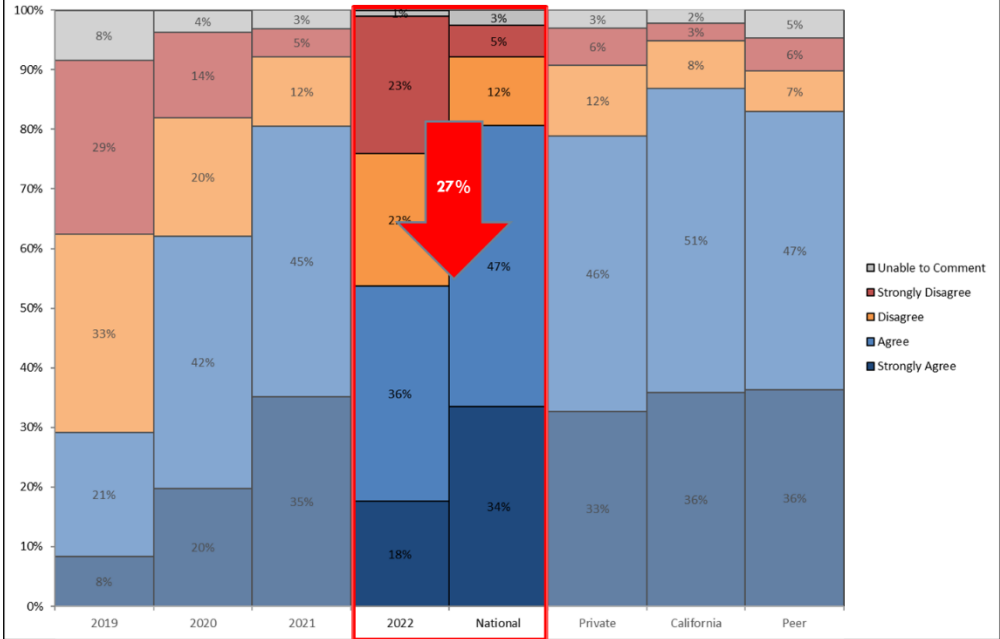
44. The college/school of pharmacy provided timely information about news, events and important matters within the college/school of pharmacy.



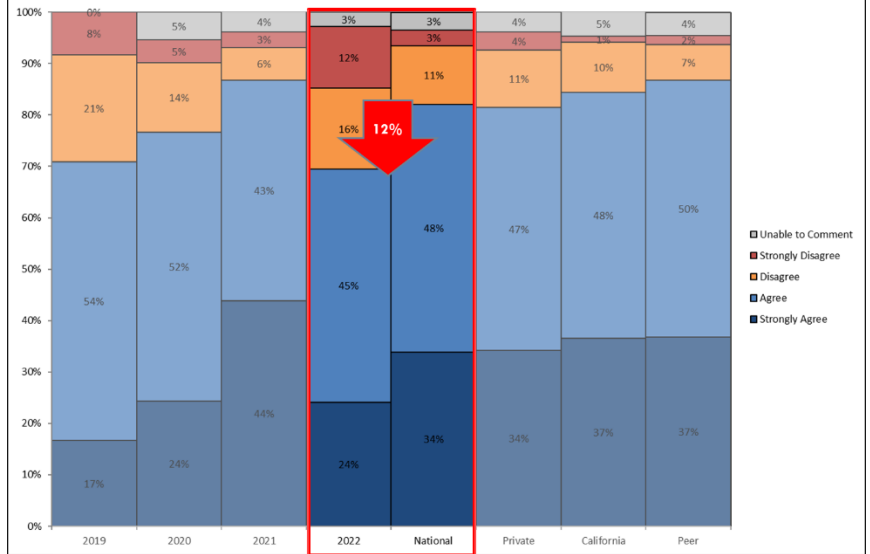
45. Information was made available to me about additional educational opportunities (e.g., residencies, fellowships, graduate school)

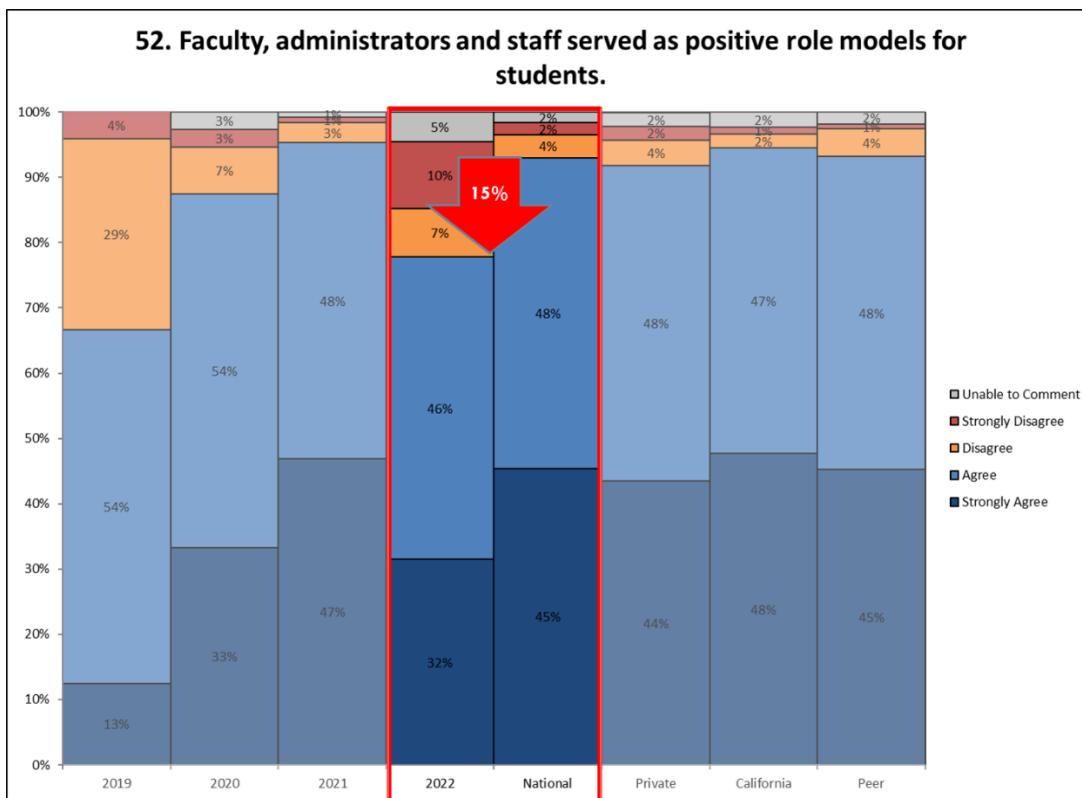
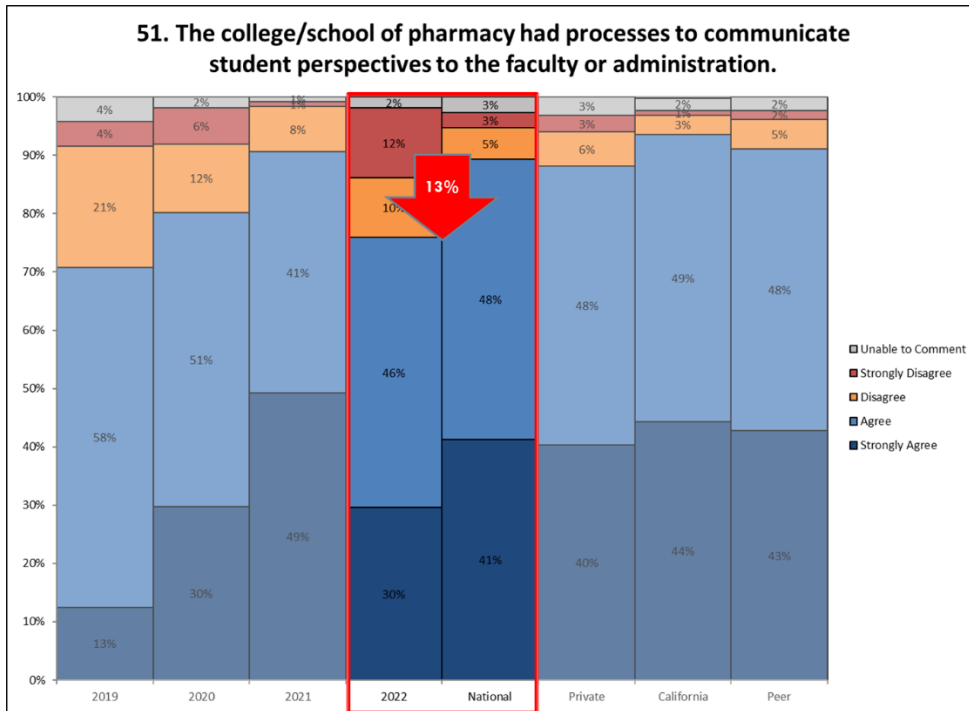


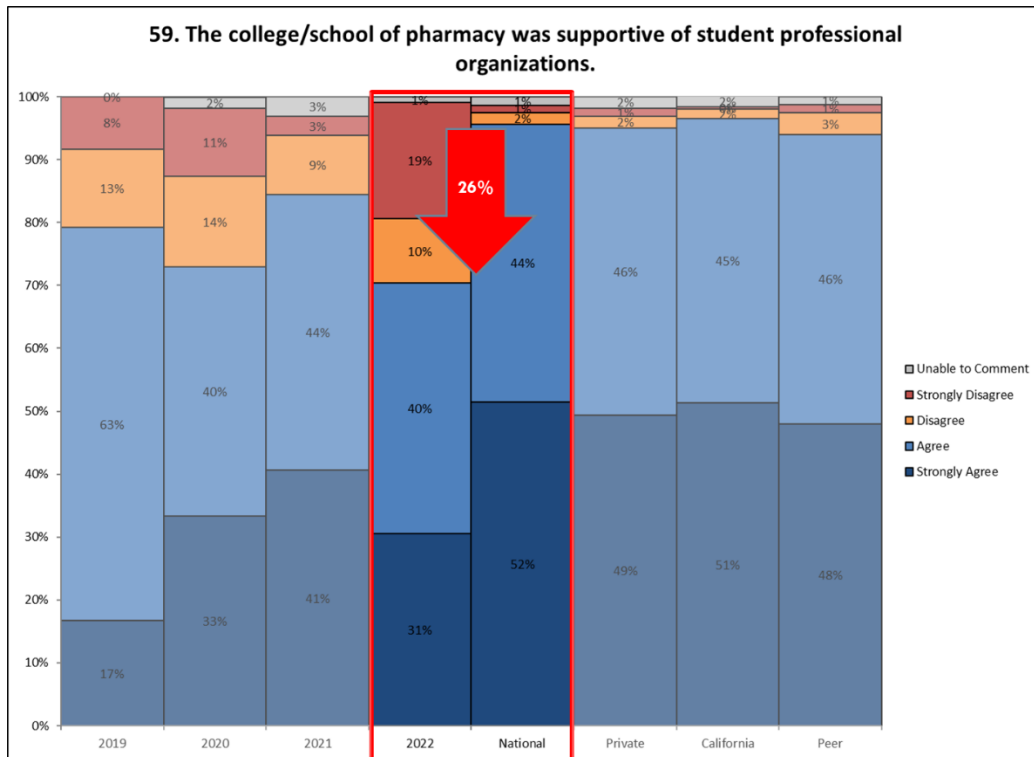
46. The college/school's administration responded to problems and issues of concern to the student body.



47. I was aware of the process for raising issues with the college/school administration.







IPE Comments:

- Although we did receive lecture/clinical simulation with nursing students, the level of engagement and collaboration was rather independently and provide input during simulation.
- Being able to work with nursing student during a stimulation was one of the best experience.
- For our IPE during our 3rd year, CNUCOP made us come to campus on 3 different occasions to deliver COVID-19 vaccines. In pandemic, many students were forced to leave their homes and elderly loved ones who were not vaccinated at the time. If we ch
- I was a part of TEAM STEPPS where I was grouped with students from different professions and we all worked together on a p understanding on how we approach the case differently and who is great at what and the importance of inter-professional relatio
- IPPEs are good introductory. The hours are just right. Not too much or too little.
- The learning experience with nurses provided me the opportunity to better understand how to be part of a multi-disciplinary team patient cases.
- We only had the opportunity to work with nursing students. Working with other health professions such as the medical students
- Working with students in allied health professions was a great way to develop insight on their efforts towards patient care in a te this was a great way to learn the details of what others practice in healthcare.
- Working with the nursing students at Sacramento State University was a great learning experience.

Professional Competencies:

- Curriculum should be based on what we actually need to know. Sometimes there was too much focus on pathophysiology which is unnecessary; most we need to know is MOA and basic pathophys.
- Due to COVID, we had to transition to online learning which I understand everyone was learning how to navigate online education but I felt due to the online learning it hindered key experiences pharmacy students should go through. Going into APPE rotations, specifically for General Medicine and Hospital rotations, I felt as though I wasn't prepared properly. The school did not prepare students well when it came to teaching us how to effectively work up patients. We had SOAP notes, but we were given hours to complete 1 patient. In reality, pharmacists are working multiple patient profiles every day so it would have been helpful to better recognize key factors in patient profiles.

- I cannot give credit to the Pharm.D. program specifically as most of these skills were gained from where I currently work or where I have rotated for IPPEs and APPEs. For the APPEs although they were through the school the credit goes to the specific preceptors I have worked with who already know the school is not doing a good job.
- I have input "strongly agree" in all categories because this is true of my learning in my professional degree program at this University.
- School does a decent job to prepare students for the ever-increasing amount of medical knowledge. Critical care, ID, and psych are well taught. The rest are rather confusing and requires me to re-learn by myself multiple times using different resources
- The Pharm D program provided me adequate experience in gaining critical skills to become a well-rounded pharmacist.
- The PharmD. program at my school has poorly developed my skills. My classmates and I share our disappointment in the program layout and progress.
- Turnover rate is so high at this campus, it makes it hard to learn because the professors have not been teaching the course for a long time. There have been professors who have joined after I started in 2018 and have already left before I even graduated.

Pharmacy Practice

- Going into APPE rotation was intimidating since prior to rotations we were all learning from home, so I felt as though we were kind of just thrown into it without preparation. Academically I felt I wasn't prepared enough due to the specialty of my rotations since they covered topics that we only briefly learned about (e.g. surgical setting and behavioral health). But overall I enjoyed my APPE and IPPE experiences, the preceptors have all been a pleasure to work with.
- I enjoyed all of my APPE rotation experiences; I felt I had the benefit of learning the pharmacist role from all experiences.
- I was able to grow clinically and professionally throughout my time during IPPE and APPEs and have learned many new experiences.
- I was fortunate enough to have a few really good rotation sites, however, I can not say the same for other students in my cohort. CNU has a very limited selection of rotations that leaves much of the cohort with poor rotation choices and even poorer experiences. Some rotations sites do not offer the correct practice experience such as "ambulatory care" rotations held at community pharmacies not being able to provide a true ambcare experience
- I was lucky to get good IPPE and APPE sites and mentors.
- I was lucky to have a decent set of rotation sites despite my schedule was changed three times. School has limited amount of good rotation sites, and even less of sites that offer residency/fellowship. A few students reached out to set up their own sites. There is a huge disparity in site quality. Some sites provide great experience while other simply ask student to be on tech duty or clerical work. As an international student, I am not given the opportunity to work and get experience as a pharmacy intern. Therefore. I appreciate anything I could learn/do while on rotation, even if it's a subpar/bad experience
- I wish that school would have more clinical assessment activities such as SOAP, verbal case presentations, journal club presentations or inpatient activities every semester and more often. I would suggest that school can provide a course for it and it should be integrated with examples and expectation rather than only 1 or 2 activities every semester. IPE simulation is fun but it's not really practical or prepare me anything for APPE rotation. I would rather have that whole day to learn more about SOAP, verbal case presentation and journal club presentations.
- In regarding IPPE and APPE, I feel like the school should evaluate which site is out to teach and which sites are not as open. Based on evaluation, it is hard to address any problem
- My IPPE and APPE experiences were poor as school did not have enough sites to offer to students.
- Some of the sites I was sent to were so unprofessional, I do not even have words to explain some of the things I endured. Not sure why we have evals in CORE when not only can the preceptors view them but can also use that to give the student a lower grade. No need for evals because we barely have sites any way. It is honestly a waste of time if we cannot be honest.
- The experiences during APPE and IPPE were diverse and exposed me to different sides of pharmacy.
- The IPPE rotations did not give me much experience, but the APPE rotations were more detailed and prepared me better for my future career.
- The PharmD. program at California Northstate University is poorly planned and students do not learn at all.
- There could be more variety in rotation sites. There were too many community/retail based options.

Student Services:

- A lot of bombardment on emails.
- Academic advising was not good. There weren't any guidance or career planning.
- Access to counseling services was provided to my knowledge. I attempted to go once, but I was not able to reach the counseling service for a scheduled meeting.
- Although we were assigned an advisor, through my personal experience the advisors did not really help at all. Going into my P1, I wanted to explore research but had no prior experience, when I asked my advisor how I can gain experience during pharmacy school they said I needed prior experience. Then when we switched advisors during our P2 year, my advisor gave me false promises on rotation sites available. I felt as though I had to navigate through different pharmacy careers on my own by being proactive, which I am fine with but I don't see why students get assigned an advisor who isn't willing to help the student grow.
- College did an excellent job in all categories!
- College/school provided access to financial aid advising and promises FAFSA for years. However school did not fulfill this promise. This one seems to attract new coming students because they'd think that they can get a federal loan and such. Promising FAFSA loan and such is a lie.
- I only utilized the FA advising and was a part of the immunization services.
- Most career advice I have gotten was through participation at student/organization-led activities or from speaking to professionals outside of school. Student leaders works hard to bring in industry professionals to help students become more familiar with job options out there. Some faculties are great and engaging, while others are there to complete their hours. School doesn't have access to health services beside counseling, which is shared between all colleges. Insurances provided by school are not great.
- My advisor asked me questions about industry. Is the point of advising not to help the student out? Why am I getting asked about programs and how to apply? What else would I expect from this school.
- My guidance counselor has changed 3 times in the last 4 years. Private loans for financial aid with interest rates upward of 8% is hurting students.
- School guidance and planning was so poor over the 4 years of the program.
- Students with disabilities were strongly judged and even accused of faking their disabilities. This happened so much that other students with disabilities chose to hide their disabilities rather than face the judgment and criticism of faculty and administration.
- The school offers only private loans which are very cumbersome for students post-graduation due to the extremely high-interest rates. Not everyone in my cohort, myself included, is as fortunate financially which leaves them with a massive financial burden upon exiting school.

Student Experience:

- 44: There have been numerous occasions throughout the four years at CNU where information was provided in a slow manner. One of the big ones that currently stands out is that the school has waited until the month before to tell students we have "mandatory" on campus review sessions the week leading up to graduation. Had this been known at the beginning or even the middle of rotations some students potentially wouldn't have planned trips during that time.
- 46: Administration did not generally respond to concerns brought up by students. The concerns were generally deflected or even simply put by the dean, "we will not be addressing this issue anymore" even though the issue was never really addressed.
- 52: While I would say there are some staff and faculty that serve as great role models and mentors to students, there are a good amount that are not as well.
- 58/59: Throughout my time at CNU there were only a couple faculty who were strongly supportive of student organizations and advocated for participation in pharmacy meetings. However, the "leader" or our dean of the school heavily advises students against getting involved when they come in as first year students. It makes advocating for students to be involved with student organizations and the community very challenging but I still try to challenge incoming students to get involved as students because it can help them to develop traits needed to be a good pharmacist.
- 60: Though students are somewhat aware of federal loans the school doesn't accept federal loans and as a result our students are exempt from any of these repayment programs.

- A witnessed disagreement between a student and a faculty member in front of the whole class and the faculty member was supported despite their rude and inconsiderate comments that were clearly stated to the student.
- All loans were through private lenders, not through government lenders.
- Better use of time would be to shorten class time so that the day can be used for actual studying or researching. UOP hours are more appealing.
- CNUCOP highlights the importance of professionalism, however they themselves are not professional. Students voices are not heard and we are shrugged off when problems arise. Just 3 weeks ago I emailed 2 different professors asking the same question, and still no response. They try to ignore you unless you go up to them in person, and with the pandemic/APPE rotations far away, that has been difficult. Also, I would highly recommend to investigate the school's financials. Our class has upwards of 150 students, and with tuition being ~200k for all 4 years, the school has generated \$30,000,000 from us. Also, for our graduation, they included a \$300 "graduation fee", generating them \$45,000... Our graduation is in a parking lot because the "school cannot afford any venue" (College of Pharmacy and Medicine have a graduation together). Seems very shady, please investigate.
- I was unhappy with my experience at the school over the period of 4 years.
- Initially, the school offered a fully funded conference per student but over the years this was no longer an option due to it "not being in the budget" although we pay a portion of our tuition to fund conferences and "student activities". Even with COVID restrictions, our tuition remained the same and once restrictions lessened and conferences opened up again funding for said conferences still was "not in the budget"
- My experience was average compared to students from other local school. There are student representative groups and student body, however I am not sure if our concerns are being voiced effectively. School spent a lot of focus on public activity like Covid clinic (which was made a requirement for students to participate), but little on student well-being (loans forgiveness, student lounge, school-wide fun activities, field trip, free meal). I understand that school lacks the infrastructure and physical space to host such activities, but it is the thought that counts.
- Overall the college did a wonderful job in all categories.
- The school does not accept governmental (state/federal) loan, so students have to get the loan from a private company with insane interest rate. The school also does not respond to the students' request. Bascially does not think/care about the student. The school does not allow students to go to national conferences because there is no reimbursement. and students would have to pay out of pocket to travel which eliminate the chance of building a good network in pharmacy
- The school does not make any efforts to address any student concerns or implement any changes that were suggested by the students. The school also does not offer any financial aid to students, with just merely \$500-1,000 scholarships per year that have no impact on tuition as they continue to raise it every year while cutting funding to student organizations. The refusal to participate in the federal loans, puts a huge financial and psychological burden on the students. With no funding to student organizations, we are unable to participate in pharmacy conferences, competitions as we do not have the financial capabilities to support ourselves in representing the school in such a way.
- The school hardly ever provides timely information about events. There is no one place where we can find information on events, optional or required. All the information is very scattered and difficult to find.
The administration never responds to student's concerns. They pretend to listen to our concerns but never actually take any of it into consideration.
The school is clearly racist and very biased towards people of Asian descent. This can be seen in many ways, one of which includes the lack of diversity in the student population.
The school provides absolutely no federal or state loan repayment programs and even refused to use FAFSA or any government related aid. In addition, loans provided by private companies had interest rates of 10% to 15%, which is ridiculously high.
- The school needs to do a better job looking into preceptors. I understand with covid, sites are limited however some preceptors are HORRIBLE to the students and unprofessional. It upsets me even more that some of the school staff are aware and do not do anything about it. They just tell the students to basically get over it. The school is also TERRIBLE at communication. Most important information was always given so late and the students were expected to make accommodations themselves.
- This school does not care about the students in anyway. We have asked multiple times for the breakdown of tuition and why we are being charged so many fees but they refuse to give us an answer. We are also asked why we are paying a \$300 graduation fee when the graduation is in the parking lot and we had to purchase the cap and gown on our own. The school is making nearly \$50,000 just from the college of pharmacy but we are receiving such a mediocre graduation after all our hard work over the years. This school needs to be reevaluated especially the CEO Alvin Cheung who only collects money from the students and was refusing to sign students living expense checks.

- This school only takes private loans. The school does not listen to concerns of students. Time and time again the policies and procedures change. We were not supposed to have exams the week before final. We definitely do. Some of the faculty do not even reply to emails. I had a faculty member schedule advising with me and did not show up 3 times and had the audacity to say he returned from vacation and forgot. Needless to say, most of my class has 0 expectations from this school.
- Throughout my 4 years at CNUCOP, the more I realized how inconsistent administration could be. For example, previous graduating class received graduation information early enough to prepare for the ceremony, but this upcoming year we tried to voice our concerns but were pushed aside and the dean said he will no longer discuss our concerns with us.

In terms of residencies, the school provided adequate resources, however for fellowships I was not aware of how to even apply. The school pushes for students to go into the clinical route, but doesn't address other fields/jobs pharmacists could have that isn't related to the hospital/inpatient/am care setting. It makes the students feel as though the options are very limited.

Lastly, the school had the option to let students take out federal loans, but opted out. There was a point where the only private loan options were with Sallie Mae and student loan interests rates were above 9%. It looks as though the school is for profit vs. trying to shape students to become good pharmacists.

Facilities:

- 1. Library has small space for all COP, COM and few other programs.
- 2. School needs more study area for students especially around the exams
- 3. No more parking for late coming students
- 4. The internet in the school is horrible. It was on and off. The IT could not fix the email server for months. This is unexceptionable in graduate/doctorate college because we all depend on the internet to be functional.
- 62: IT was less than satisfactory as there were multiple occasions when there was lacking internet access to be able to utilize resources or take our online quizzes. Several students needed to resort to using hot spots on their phone just to take a simple quiz. It is almost a good thing we had to transition to distance learning due to COVID because of the lacking IT to get simple day to day assignments completed. Even for our final year, our school emails went down and the school had said IT was working on it. However, we have gone 3 weeks now with limited email access (still ongoing) and all emails from before 3 weeks ago have not been restored.
- 65: Since the school houses, Colleges of Pharmacy, Medicine, Dentistry and Psychology they could have more study areas for students.
- Access to electronic data bases was always as issue and school was always changes their data bases access without a notice. Campus was very small and barely any place to sit and study. Laboratories were very small, outdated, and non-beneficial.
- Classes were not large enough for 164 students. Having such a huge cohort of 164 is not helpful at all, if it indicates anything then it indicates that the school want more and more money because there isn't any attention to students as there are too many for a professor to be able to give attention to.
- Clinical Pharmacology and Micromedex were helpful when we had them. I think the school should bring these back
- I absolutely appreciate having had access to e-library resources especially during the height of the pandemic where there was no ability of physical access to the college library.
- I prefer studying alone so I enjoyed going to first floor rooms to study.
- It felt like most of the private study rooms at our campus favored the medical school over the pharmacy school.
- Lost access to library databases. Links did not link to the right database and nobody ever replied to emails or fixed these issues.
- No cameras in the parking lot or around campus, leaving many students with car break ins and hit & runs with no evidence. Pushing the student to handle the cases all by themselves. Study areas were unfairly given to medical students as priority and the pharmacy students were only allowed in during certain hours. Posing a division between interprofessional students as well as mental burden/discrimination to the pharmacy students. There are no common spaces for relaxation and socialization on the campus building.

- Not great policies/procedures in place to ensure cheating was not occurring when taking exams virtually.
- On our campus, there are both medical students and pharmacy students. Medical students are clearly favored over pharmacy students. Med students have more study rooms and more areas (such as lockers) designated only for med students. This has created a lot of distrust and animosity between pharmacy and med students.
- Our online learning libraries and databases frequently crashed leading to lapses in ability to access quality resources.
- Please get Lexicomp for students. A lounge that can only fit a few students should not be there if our population is above 400. Google drive should be enabled. Needs more study room that is not shared with 2 other colleges
- Refrigerators and some areas needed to be updated and/or cleaned.
- Study rooms only seem to be available to medical students.
- The campus itself provided sufficient resources and access to online learning resources were readily available.
- The library resources (e.g. micromedex, UpToDate) were great resources but were not expanded upon all their practical uses like being able to use them with student's mobile device among other things. Moreover, access to some other library resources were removed completely.
- the study space was reserved for college of medicine students. Usually cannot find any study space at school so have to find somewhere else
- There aren't enough private study rooms for all the students to use unless they are sharing with each other.
- We lost two very important electronic databases in the last two years. It made it difficult to get reputable information needed during IPPES, APPE, and Didactic projects.
- We need access to Lexicomp. Have of the time the databases are down. Not to mention the issues with the outlook email. Some very crucial and important emails are now lost.

Overall impressions:

- 71: While I have seen some positive areas of pharmacy from my time at Northstate, a limited amount of those actually came because of the school itself. There were select faculty who served as wonderful mentors to me and I do truly thank each of them for pushing me to be a strong leader and to go above and beyond and to seek and take advantage of opportunities when they presented themselves. While I was able to take advantage of many great opportunities due to student and state organizations, it was very discouraging to hear that the dean of the school was telling students not to get involved with organizations because academics is the only thing that is important. Not only that, he continued to show that he did not support student organizations by no longer providing each org funding to help them put on events like health fairs and other educational events for the community. It seems as though there is a lack of respect towards the students who put in so much time, effort, and resources into their time at the school. When addressing concerns about how the graduation will be held this year, the dean simply said "we are no longer going to address this issue" it makes everyone feel as though their opinions do not matter and we are just going through this program to support the hospital they want to build.
- Again, unprofessional, high turnover rate, no care for the students, and most importantly is because of the financial shadiness. I love pharmacy and feel like this is where I belong, but not with CNUCOP.
- Between the constant changes, grievances, lack of professionalism, cost of tuition, lack of APPE sites, and lack of communication, I do not recommend this school to anyone. This was one of the worse decisions I made was to come to this school.
- California Northstate University College of Pharmacy was not a good experience because all professors claim that since the program is a team based learning then they do not need to teach us anything. Therefore, students had to teach themselves all materials for 4 year while paying 50k a year.
- CNU has really great professors and faculty who prepared me well enough to enter pharmacy, but in terms of the higher ups (e.g. dean, president, executive board), it's very obvious they don't care for the students but rather their own profit. There have been many instances where this could be seen. They focus and care more about expanding their programs (e.g. nursing, dental, medicine) rather than building a good strong foundation in their existing accredited programs. They also have the tendency in addressing positive accomplishments, but then provide the bad news after. For example, during the graduation announcement that the ceremony will be held in the parking lot. They were giving us recognition for all that we do for the school, then when we tried to voice our concerns about the ceremony we were brushed off. Some of the fees we're charged doesn't financially make sense when most students are taking out private loans already to attend this pharmacy school.

If I were to choose another program I definitely would go to a school who offers federal loans. At the time I wasn't thinking about finances, only location. Even though there are faculty and professors who care for the students, the business of CNU is not the most professional.

- Even though I enjoyed the pharmacy school, I would not come back or recommend to a friend become a pharmacist because pharmacist/pharmacy field is very saturated
- Everything was perfect. However, I felt that many exams especially during the rotations was not something I looked forward too. Rotations are already hard, and it takes lot of time/dedication so, sometimes as student I hardly get time to study and prepare for the exams.
- Had acceptance into a different university that seems to care much more for its students (better reputation, better test scores, having graduation not in the parking lot like us, listens and acts on student complaints) - should have gone there due to their 3-year program + better reputation.
- I am not as prepared as I could have to enter pharmacy practice. As an international student, I lack the working experience needed to gain exposure to operational workflow of an inpatient/outpatient clinic. School prepares me well on several topics such as pschy, ID, critical care, and the rest was self-taught. I also owe a lot of what I know to my preceptors. Pharmacy is a tough career, and without good preparation, it will be hard to enter the job market as a competent applicant. I would rather choose computer science engineering where it's less of monetary investment and possibly higher rate of return
- I believe CNUCOP is a great institution for preparing future pharmacists. Many resources are available to the students should they show an interest. Nearing the end of the program I would still choose to study pharmacy if I were starting my college career over again and I would again choose CNU.
- I did not really enjoy my overall experience at this pharmacy school. Lectures could have been improved. Some professors are not good at preparing lecture slides/teaching (some lecture slides are very unorganized and hard to follow through). However, most of the professors are very responsible and good at lecturing and have really good lectures slides. There could be better communication between administration, faculties, and students. Disappointed about where our graduation ceremony is held. Our four years of achievement deserve to be celebrated in any place other than the parking lot.
- I feel somewhat prepared to enter the pharmacy profession. I do not think I would choose to study pharmacy again if I had the choice. This school has emphasized over and over again that there are “zero jobs left in pharmacy” and that “community pharmacists are stupid and worthless.” This message has been extremely disheartening, especially to someone who actually wants to be a community pharmacist.
- I think it would be better if the therapeutic lectures could be more organized because some of the lecture are very unorganized. Instead of giving us handout to read, I think it would be more benefit if the teachers can select the important points and put on the power point.

Also, I wish the school should have federal loan for students instead of private loan.

- I would have liked for the school to hire better professors with regards to pharmacotherapy during P3 year (e.g. cancer)
- I would not attend this school again as they have severe inadequacies when it comes to student financial aid. I am financially so far in the negative that I am not sure how I will pay on my loan post-graduation. The reality of loans with interest between 7.5-12.75% is setting in. As a first-generation college student, I am trying to navigate this almost entirely on my own. Other schools offer FASFA and other Federal Aid that can be used to fund education and would have allowed me to pursue further education and training in my field of study.
- I would not attend this school again if I had the choice. Although I have enjoyed my experiences and memories that I had while I was there, there are definitely better choices for schools rather than this one. There is little transparency between school and students regarding where money is going. There is also no federal financial aid which makes it harder for students to pay off in the end if they are not successful in their career. The school does not care for student organizations and provide little reimbursement if any for development of students at conferences and etc.
- i would prefer to be closer to home
- I would still choose pharmacy program as my future career but I'm not so sure about choosing the same school of pharmacy. During school, I had to go out of my way to find good experience (such as better APPE sites, working experience,...), which could be offered by other local pharmacy schools.
- If I could go back I would pick a different school that provides more opportunities to its students and better rotations sites. From my experience, I've seen that there is a wide disparity in sites and low expectations of the students that come from CNU.

- My school program was very poorly planned. It was constantly failing to meet the needs of student. Students were always left behind and never updated on anything. School was always mentioning that they are accredited but students never heard about why Naplex passing rate are dropping year after year. School never spent any money on developing the program even though it is one of the most expensive school in the country. If I were to re-choose a program I would never choose CNU PharmD. program as it never met my expectations even though I spent so much money. Teaching staff was severely lacking knowledge and did not know how to teach and did not even teach. The team based learning was a horrible technique because students had to teach each other as professors always claimed that they do not need to teach because it is a team based learning program. It was a disastrous experience for me and my classmates.
- Overall, I had a great experience at this school. The transition to online learning due to COVID-19 was smooth and the professors were well-prepared for that. I really appreciate their efforts.
- Pharmacy in general has been come overwhelmed with new graduates by school's who are accepting any and everyone by lowering requirements, and admission rates over 80%. This coupled with the cost of education and our school, who does NOT offer federal loans, leaves student's with huge financial burdens. Some students leave with over 250k worth of loans, an oversaturated market, and pay rates which have stagnated and not kept up with the inflation. Pharmacy is a joke right now... and there are many places to point the blame. But one place we can start is by closing these diploma mill's.
- Study pharmacy again? No.. too long and too liable. But it's okay, still will make a decent living. School? Was okay. Campus was small which isn't as big a problem as the team based learning; can definitely shorten time doing that and cut down class time.
- The school needs to be public, the loans are not worth the degree
- The loan system is ripping students off.
- The program is well-structured but the pharmacy school itself makes the students feel unvalued, indebted, and demoralized. The dean and president of the school has no regards for students' well-being and hard work. They make no effort to have the students feel valued. Year by year, there are no alumnis who wish to make donations to the school because of how poorly the pharmacy students are treated. With a high acceptance rate, sky-rocketing tuition, and financial aid cuts, there is no reason for any student to attend CNUCOP over any other pharmacy school.
- The school delivers what someone needs to complete the program, but is increasingly self-unaware or ambivalent of its growing infamy among its students or alumni. Once enrolled, it's an open secret that rotation site selection is limited due to its reputation of underdeveloping students so notoriously that we're unable to compete with rival school students for unwilling local sites.
One would think the for-profit nature of the school would lend itself to investing back into the students, but the apparent solution instead is to invest into building a hospital to just create vertically-integrated sites for poorly taught students instead of improving the quality of the teaching and student-institution relationship.
With how much money each student pays for this program, it is almost insulting to find out that federal loan programs are unavailable at this school. The increasing cost of tuition is juxtaposed by the commencement ceremony for graduation being slated for the school's parking lot. The institution feels extremely transactional in nature; serving more as a means to the ends of whatever the leadership has planned.
Despite this, I would still choose this school. Its location is the key factor for me. I continued on in gradually-accumulating spite for the inherent disadvantages I have before me.
- This college was diverse and had faculty that could connect with the students. The college deans were kind and open minded. If I ever needed additional help, I never hesitated to get help... and the faculty always helped.
- This school will let anyone become a pharmacist as long as they can pay tuition, even if they are not capable of being a pharmacist.
- Too expensive, pharmacist that leave this school deal with the debt for 10+ years. Just financially doesn't make sense if I had to do it all over again to go back to pharmacy school.
- Witnessed and experienced faculty not being professional, Witnessed some racist behavior among teammates, and had a specific preceptor that was very very unprofessional towards multiple students. Other than this I did encounter great experiences with certain faculty and staff as well as preceptors and classmates.
- CNUCOP is an average school at best. They meet requirement for accreditation, however, they lack the infrastructure and support to be an outstanding school. I was lucky to have a decent set of rotation sites despite my schedule was changed three times. School has limited amount of good rotation sites, and even less of sites that offer residency/fellowship. A few students reached out to set up their own sites. There is a huge disparity in site quality. Some sites provide great experience while other simply ask student to be on tech duty or clerical work.

Without competitive rotation sites, it is very hard to compete for residency/fellowship. Although, CNUCOP offer rotation sites at rural site, which is good place to get experience post-graduation.

- Did not feel the support needed from the faculties.
- Funding to students is constantly being cut and denied. Tuition increases while less rotation sites are being offered, resources are limited, and focus is geared towards other programs such as medical and dental. With all the hard work the students have put in and the stress endured by this terrible school, the graduation is going to take place in a parking lot. Whereas other schools have a proper auditorium to congratulate the new pharmacists who will be entering the workforce. Despite numerous letters, feedbacks, and suggestions to move the graduation ceremony to a more professional venue, the school refuses to put down extra resources for that to happen.
- I feel prepared to enter the profession of pharmacy as far as my APPE rotation and experiences outside of didactic training have provided me. As with all healthcare professions, there is always room to grow and keep learning. I appreciate CNSU-- strong teaching and wonderful place for growth.
- I would never choose this school again for any type of education. The administration is dishonest and conniving, and they only interested in their own gains. The quality of education is subpar at best and even then it requires the student to teach themselves. I am disappointed and frustrated that I wasted my time and money on this school.
- I would never pick the CNU PharmD. program. The team based learning was horrible, and I never learned anything from professors. I basically had to teach myself for 4 years while paying full tuition to the school.
- In terms of overall impressions I am really not pleased with having a graduation ceremony in a parking lot. Really belittles getting a doctorate. If anyone were to ask me if they should go there I would suggest they go elsewhere. Paid way too much money to walk in a parking lot.
- Overall, good experience.
- Overall, I felt that the school did well to provide and prepare me to enter the field of pharmacy. I would choose this school over others because I felt that the team aspect simulates a similar environment such as those in a pharmacy where it's not just one person working, but a whole team.
- The PharmD. program at CNUCOP was very poorly planned and professors were not giving attention to students. Also, school did not have many sites for IPPE and APPE and thus we were not able to have options to learn from IPPE and APPE.
- The preceptors I've worked with have all been amazing and I'm very grateful to have worked with them. It's unfortunate that it was a difficult process to get the rotation sites I wanted. I helped set up a site, but the APPE department assigned other students to it rather than myself. It wasn't until I went through the entire list of the faculty I was finally assigned to the location I set up.

VI. 2022 AACP Faculty Survey Results

Brief Analysis:

- Response Rate was once again very high at 87%, but slightly lower than in the last two years which demonstrated a 100% response rate, all above the pertinent comparators and up from 75% in 2022
- Generally, results were fairly positive and similar to the comparators
- The following questions demonstrated >15% above average results:
 - 8. The assessment processes are effective.
 - 20. I receive guidance on career development.
 - 21. Funds are available to support faculty development.
 - 24. Programs are available to develop competence in research and/or scholarship.
 - 30. The college/school has a sufficient number of faculty.
 - 36. The college/school uses programmatic assessment data to improve the curriculum.
- While similar to the national averages a downward trend was observed for the following questions:
 - 8. The assessment processes are effective.
 - 4. The college/school's administrator(s) are responsive to my needs/problems.
 - 5. The Dean is an effective leader of the college/school.
 - 10. The college/school provides opportunities for faculty participation in governance.
 - 44. In my opinion, the proportion of my time spent on clinical service is appropriate
- The following questions demonstrated >10% below average results:
 - 14. My performance assessment criteria are explicit and clear.
 - 40. The college/school has an effective process to manage poor academic performance of students.
- While similar to the national averages a downward trend was observed for the following questions:
 - 40. The college/school has an effective process to manage poor academic performance of students.
 - 12. The college/school requested my input during the development of the current strategic plan.
 - 13. I have access to documents that detail policies related to my performance as a faculty member.
 - 26. Faculty office space permits accomplishment of my responsibilities.
 - 28. The college or school has resources to effectively address instructional technology needs.

- 39. The college/school has an effective process to manage professional misconduct by students (e.g., repeated tardiness/absences, drug diversion).
- Qualitative Summary:
 - Several faculty expressed the feeling of not being valued based feeling like their opinion was not taken seriously and being compensated with relatively low salaries that were not always adjusted for the increase cost of living while also feeling overworked and general burnt out
 - Several faculty expressed concerns over IT issues

Question	2019	2020	2021	2022	National	Private	Cali.	Peer	Diff.	>15% better	Up trend	>10% worse	Down trend
Response Rate	53%	100%	100%	87%	75%	79%	78%	91%					
1. The college/school's administrators (e.g., Dean, Associate/Assistant Dean, Department Chair, Program Directors) have clearly defined responsibilities.	89%	88%	77%	75%	85%	84%	90%	88%	-10%				
2. The college/school's administrators function as a unified team.	83%	75%	71%	78%	77%	77%	84%	82%	2%				
3. The college/school's administrator(s) are aware of my needs/problems.	89%	72%	74%	75%	80%	81%	82%	82%	-5%				
4. The college/school's administrator(s) are responsive to my needs/problems.	67%	66%	71%	72%	73%	73%	78%	78%	-1%		X		
5. The Dean is an effective leader of the college/school.	67%	72%	81%	69%	77%	77%	86%	82%	-8%		X		
6. I am given the opportunity to provide evaluative feedback of the administrators.	61%	66%	71%	78%	69%	69%	70%	64%	9%				
7. I am aware that my college/school has policies for dealing with harassment and discrimination.	94%	94%	90%	91%	95%	96%	95%	93%	-4%				
8. The assessment processes are effective.	78%	81%	90%	94%	78%	79%	85%	86%	16%	X	X		
9. The curriculum oversight processes are effective.	94%	91%	90%	88%	81%	80%	85%	85%	7%				
10. The college/school provides opportunities for faculty participation in governance.	78%	84%	87%	100%	89%	89%	90%	91%	11%		X		
11. The college/school effectively employs strategic planning.	94%	81%	90%	94%	81%	80%	83%	80%	13%				
12. The college/school requested my input during the development of the current strategic plan.	100%	94%	87%	88%	87%	86%	87%	89%	1%				X
13. I have access to documents that detail policies related to my performance as a faculty member.	100%	100%	94%	91%	90%	91%	87%	92%	1%				X

14. My performance assessment criteria are explicit and clear.	89%	69%	87%	69%	81%	81%	82%	85%	-13%			X	
15. My allocation of effort has been clearly stated.	78%	59%	61%	72%	81%	79%	84%	82%	-9%				
16. Criteria for my performance assessment are consistent with my responsibilities.	89%	75%	74%	72%	80%	79%	81%	83%	-8%				
17. I receive formal feedback on my performance on a regular basis.	100%	78%	81%	94%	82%	82%	85%	86%	12%				
18. The performance feedback I receive is constructive.	89%	75%	87%	88%	81%	81%	85%	86%	6%				
19. The college/school consistently applies promotion and/or tenure policies and procedures.	56%	41%	65%	69%	76%	76%	76%	74%	-7%				
20. I receive guidance on career development.	83%	78%	81%	88%	66%	66%	67%	68%	22%	X			
21. Funds are available to support faculty development.	100%	88%	94%	97%	79%	81%	84%	88%	18%	X			
22. Programs are available to orient non-practice faculty to the pharmacy profession and professional education.	83%	63%	77%	69%	54%	58%	59%	63%	15%				
23. Programs are available to improve teaching and to facilitate student learning.	100%	97%	97%	100%	88%	88%	89%	86%	12%				
24. Programs are available to develop competence in research and/or scholarship.	100%	88%	87%	94%	73%	70%	76%	72%	21%	X			
25. The college or school has a sufficient number of staff to effectively address programmatic needs.	83%	75%	65%	69%	57%	54%	64%	59%	12%				
26. Faculty office space permits accomplishment of my responsibilities.	100%	97%	94%	94%	93%	93%	88%	88%	1%				X
27. The college or school has resources to effectively address research/scholarship needs.	89%	78%	74%	84%	70%	69%	73%	70%	15%				
28. The college or school has resources to effectively address instructional technology needs.	89%	84%	74%	75%	81%	79%	84%	81%	-5%				X
29. The college has physical facilities to effectively support academic program needs.	95%	94%	87%	97%	85%	83%	83%	86%	12%				
30. The college/school has a sufficient number of faculty.	61%	72%	71%	72%	55%	54%	57%	57%	17%	X			
31. My campus work environment is safe.	100%	100%	97%	100%	94%	94%	93%	92%	6%				
32. The organization and structure of the curriculum is clear.	100%	91%	87%	97%	88%	88%	87%	89%	9%				
33. I understand how my instructional content fits into the curriculum.	100%	97%	97%	100%	93%	94%	91%	95%	7%				
34. The curriculum is taught at a depth that supports understanding of central concepts and principles.	100%	97%	97%	100%	87%	87%	88%	87%	13%				
35. Curricular collaboration among disciplines is encouraged at my college/school.	95%	97%	87%	100%	88%	89%	89%	91%	12%				
36. The college/school uses programmatic assessment data to improve the curriculum.	100%	91%	90%	100%	83%	84%	84%	88%	17%	X			

37. The college/school provides an environment and culture that promote professional behavior among students, faculty, administrators, preceptors and staff.	78%	91%	81%	97%	88%	87%	88%	88%	9%				
38. The college/school has an effective process to manage academic misconduct by students (e.g., plagiarism).	100%	91%	81%	91%	84%	82%	82%	80%	7%				
39. The college/school has an effective process to manage professional misconduct by students (e.g., repeated tardiness/absences, drug diversion).	100%	88%	77%	81%	79%	77%	76%	78%	3%				X
40. The college/school has an effective process to manage poor academic performance of students.	100%	91%	90%	66%	79%	78%	85%	83%	-13%			X	X
41. In my opinion, the proportion of my time spent on teaching is too much	89%	72%	84%	84%	80%	79%	84%	84%	4%				
42. In my opinion, the proportion of my time spent on research is too little	89%	94%	87%	97%	93%	94%	93%	95%	4%				
43. In my opinion, the proportion of my time spent on service is too much	67%	53%	61%	69%	75%	72%	72%	69%	-6%				
44. In my opinion, the proportion of my time spent on clinical service is appropriate	45%	47%	48%	50%	48%	50%	50%	49%	2%		X		

Administration and Governance:

- Faculty need to have more input and the highest administrator needs to listen to faculty input with an open mind.
- It is hard to feel valued at the College/University when the University will not provide annual cost of living adjustments for faculty. The sentiment from the administration often implies that faculty are free loaders who are being overpaid, but the University refuses to contextualize faculty salaries based on the cost of living in California and the compensation that is being offered by competing programs per the AACCP annual report. When the University administration asked what can be done to incentivize faculty retention other than providing a wage that is comparable to other programs and doesn't decrease over time due to inflation, the faculty asked to be able to work from home occasionally, and the University refused to have any type of work from home policy. Thus, the University only intends to have a nominal retention plan that pays lip service to actual faculty concerns, and the administration seems more than willing to accept high turnover at the University if the alternative is providing a somewhat comparable compensation package to other programs.
- One mid-level administrator causes considerable disruption through repeated uncollegial and untrustworthy behaviors that remain unchecked.
- The dean micromanages and oversteps boundaries by assigning tasks to individual faculty without discussion or input from the chairs. We completed an internal survey to assess reasons for employee burnout and turnover but nothing was ever done to address our needs or concerns. My department chair does a great job of trying to keep everything running smoothly, but they are frequently undermined by upper leadership which makes it difficult.

Faculty Development:

- My percent effort does not at all align with my allocation effort. If you add what I am actually doing on a weekly basis, I am giving at least 120% effort to get everything done.
- The promotion committee was asked by faculty to update policy to be fair to clinical faculty but new guidelines weigh even more on big grants and research. Recent version does not accept continuing ed articles or pharmacy journals. Clinical faculty are unheard and leaving.

- The University is not willing to align faculty salaries with the AACCP report or to provide yearly cost of living adjustments that account for inflation, and as a result, I think many of the faculty feel demotivated because hard work does not translate into financial advancement at the University.
- There needs to be better HR evaluation management. High HR turnover. Promotion criteria need to be better for clinical practice faculty. Department administrators do a great job supporting faculty and staff.

Infrastructure:

- IT has been a constant struggle at this institution. Front line IT does a great job with limited resources. The IT infrastructure is lacking and our failed mail servers still have not been restored.
- Journal article databases are significantly worse than other institutions I've worked at. They are cumbersome to use and don't provide access to most articles. I pull the majority of articles I need for teaching/research from previous institution logins. Google drive/docs is blocked which inhibits my external collaboration with co-authors and denies me access to the thousands of articles I've collected in google drive over previous years of practice while I'm on campus. I frequently leave campus to go home to work on these projects because I cannot access them at work.
- Many committees and many meetings last hours. New committees or task force added squeezing out time for teaching.
- Our IT server crashed and we went without access to Outlook for at least 2 weeks (some of us longer). I still don't have full access to everything including my calendar from before the server crash. This is not acceptable for an academic institution.

Curriculum:

- The faculty members work well together to align courses and content.

Developing and supervising

- Although faculty follow processes to manage poor academic performance, students with consistent low performance need to be dismissed from the program as per policies and procedures.
- Faculty are extremely burnt out by all the remediation required for the lowest performing students. Students go to PASC and then just submit an appeal and are allowed to remediate.
- Students are frequently recommended for dismissal due to poor academic performance by the professional and academic standards committee and office of academic affairs, but then appeal to the dean who gives them multiple more chances for remediation. They then proceed to the next year and fail multiple classes again and remediate multiple times. The culture is that no one gets kicked out and everyone is pushed through, so ultimately students remediate until they pass, which defeats the purpose of remediation. Ultimately this results in faculty having to "slow down" teaching for the entire class to ensure that students who should have been dismissed can continue progressing, which results in less optimal teaching for the class as a whole. Lastly, students do poorly on rotations and on board exams due to the above issues, and more faculty effort is expended during the 4th year to try and make up for deficiencies resulting from the above described effects. This greatly increases faculty workload and burnout, and I believe it is a significant contributor to faculty leaving the institution and resulting in inadequate number of faculty.

Academic Roles:

- Too many committees and number is increasing, but service is negative for promotion.

VII. 2022-2023 CoCuLO Report

Introduction:

The Accreditation Council for Pharmacy Education (ACPE) requires that each pharmacy student participate in co-curricular learning activities, which are “activities, programs, and learning experiences that complement, in some way, what students are learning [in the classroom].” The co-curriculum is comprised of “activities that are connected to or mirror the academic curriculum” and provides opportunities for students to apply and further refine skills learned in the classroom by engaging in community service, leadership, and professional development experiences. The Co-Curricular Program also enables students to assess their skills and abilities through self-reflection essays and direct feedback.

Co-Curricular Learning Outcomes:

The six Co-Curricular Learning Outcomes (CoCuLOs) are defined below and are derived from select Program Learning Outcomes of the College of Pharmacy.

CoCuLO #1: Social Awareness and Cultural Sensitivity

CoCuLO #2: Professionalism and Advocacy

CoCuLO #3: Self-Awareness and Learning

CoCuLO #4: Innovation and Entrepreneurship

CoCuLO #5: Public Health and Education

CoCuLO #6: Service and Leadership

Identification of co-curricular events:

Co-curricular activities and/or events can be provided by both student organizations as well as the College of Pharmacy. All co-curricular activities/events offered by the College of Pharmacy’s student organizations must receive approval from the organization’s faculty advisor and the Office of Student Affairs by submitting a Uniform, which details how the activity or event will fulfill the corresponding CoCuLO. The Office of Student Affairs also provides or hosts co-curricular activities/events each semester to further support the students in achieving their CoCuLO requirements. All approved CoCuLOs are tracked by the Office of Student Affairs and made available to faculty and students. A co-curricular menu of activities is updated each semester, based on both student and faculty feedback, to better identify events and activities that fulfill the co-curricular requirements.

Student Co-Curricular Requirements:

Each P1, P2, and P3 student is expected to participate in at least eight events corresponding to the six CoCuLOs by the end of the P3 year. To remain on track for completing the co-curricular requirements by the end of the P3 year and to ensure students’ academic performance remains the focus of the pharmacy program, students should aim to complete two to three CoCuLO events/activities each year. No more than three events in a given year will be accepted. Each activity or event can only fulfill one co-curricular learning outcome. Any activity or event in which a grade or credit(s) is received cannot be considered a co-curricular learning activity.

Upon completion of each co-curricular activity, students must submit a self- reflection essay on CANVAS responding to a prompt that asks the students to describe how the activity they participated in enabled them to achieve or move towards achieving the co-curricular learning outcome selected as well as how the event or activity contributed to their personal and/or professional growth. These self-reflection essays should be submitted no greater than four weeks after the completion of the activity or event. Once self-reflection essays are uploaded to CANVAS, students must email their advisor to provide notification that the CoCuLO self-reflection is available for review. Faculty advisors will track and evaluate each advisee’s involvement in co-curricular learning

activities and assess their advisees' achievement of the CoCuLOs using a rubric located on CANVAS to score each self-reflection. Students are expected to meet with their faculty advisor at least once per semester, which provides an opportunity for students to discuss their participation and self-development in co-curricular activities. Students are expected to achieve the developed or proficient stage for each co-curricular learning outcome by April of the P3 year.

2022-2023 Update:

In the summer of 2022 another norming session was conducted. Based on the results it was determined that further alignment between the rubric and the essay prompt was necessary. Subsequently the assessment committee took on the task to identify changes to both the rubric and essay prompt to improve the alignment. These changes were implement prior to the 2022-2023 academic year.

Rubric and Prompt Sample:

**Self-Reflection of Experience-Based Event for
CoCuLO #1: Diversity, Equity, and Inclusion**

This form is to be completed by the student within 4 weeks of completion of the CoCuLO Event.

Name: _____

Student ID #: _____

Today's Date: _____

Title of Event: _____

Date of Event: _____

Time spent at event: _____

Event Description:

Please provide a basic description of the event (max of 600 characters/about 100 words):

Please describe your actual involvement in the event (max of 600 characters/about 100 words):

Please explain how the event fulfills the criteria of the selected CoCuLO (max of 600 characters/about 100 words):

Self-Reflection:

Based on your participation in the event, please describe how the activities you performed helped to develop awareness of and responsiveness to social and cultural differences by adapting behaviors appropriately to show respect for these differences.

Examples can include the concepts learned regarding the different identities and norms across cultures, social determinants and factors that can affect the health of different patient populations, or best practices or procedures for ensuring equal access to quality healthcare services (max of 1500 characters/about 250 words)

Please describe how skills employed apply to your personal and professional development.

(max of 1500 characters/about 250 words)

New:

Assessment Indicator for all CoCuLOs	Initial/Developing (0 points)	Developed/Proficient (1 point)
Description of the event	The event is NOT adequately described	The event IS adequately described
Description of student's involvement	Student's involvement in the event is NOT adequately described	Student's involvement in the event IS NOT adequately described
Description of how the event fulfills the criteria of the CoCuLO	Description of how the event fulfills the criteria of the CoCuLO is NOT adequately completed	Description of how the event fulfills the criteria of the CoCuLO IS adequately completed

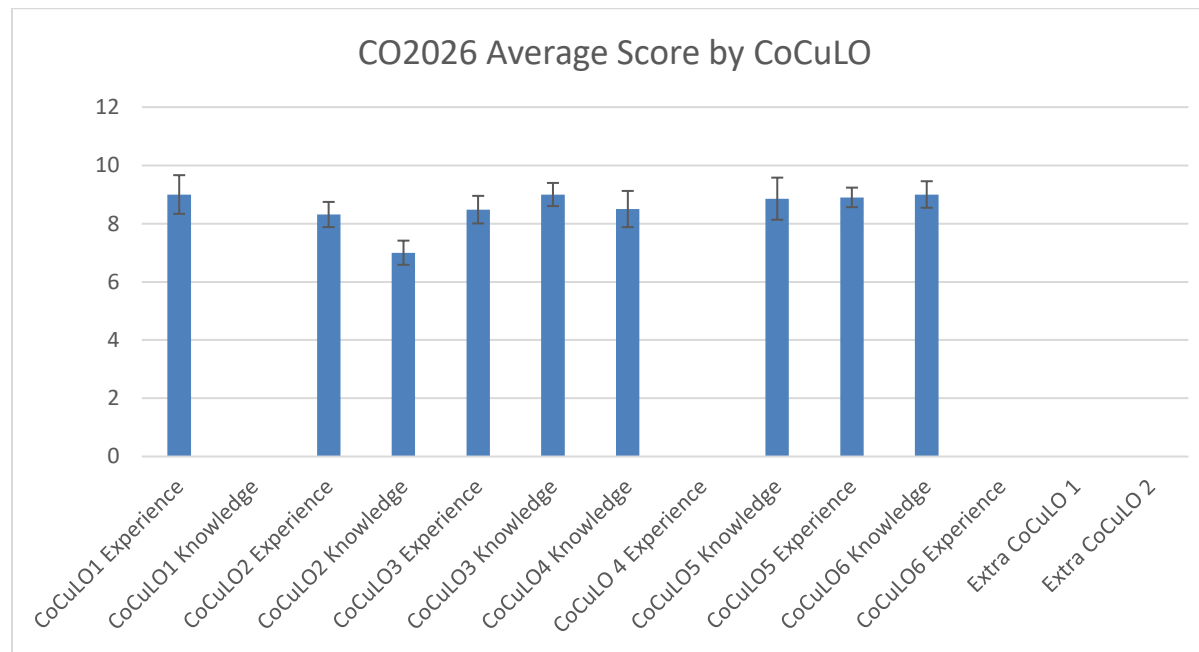
Assessment Indicator for all CoCuLOs	Initial/Developing (0 points)	Developed/Proficient (1 point)
Use of language	Uses language that impedes meaning because of excessive errors that renders the writing incomprehensible	Uses language effectively and skillfully to communicate meaning to readers with clarity and fluency, and writing contains very few errors
Clear and logical support and development of ideas	<ul style="list-style-type: none"> Does not demonstrate clear thinking; writing is confusing or disjointed; does not analyze Minimal support for or development of ideas 	<ul style="list-style-type: none"> Demonstrates clear and focused thinking; ideas are logically related and connected; writing reflects thorough, analysis of the subject under discussion Supports ideas and explains thinking; fully supports and advances the purpose of the writing

CoCuLO	Initial (0 points)	Developing (0.5 point)	Developed (1 points)	Proficient (2 points)
<p>1. Diversity, Equity, and Inclusion</p> <p>Students demonstrate awareness of and responsiveness to social and cultural differences by adapting behaviors appropriately to show respect for these differences</p>	<ul style="list-style-type: none"> • Does not describe how the activities they performed helped to develop awareness of and responsiveness to social and cultural differences by adapting behaviors appropriately to show respect for these differences • Does not adequately provide any specific examples of concepts learned regarding the different identities and norms across cultures, social determinants and factors that can affect the health of different patient populations, or best practices or procedures for ensuring equal access to quality healthcare services 	<ul style="list-style-type: none"> • Partially describes how the activities they performed helped to develop awareness of and responsiveness to social and cultural differences by adapting behaviors appropriately to show respect for these differences • Does not adequately provide any specific examples of concepts learned regarding the different identities and norms across cultures, social determinants and factors that can affect the health of different patient populations, or best practices or procedures for ensuring equal access to quality healthcare services 	<ul style="list-style-type: none"> • Adequately describe how the activities they performed helped to develop awareness of and responsiveness to social and cultural differences by adapting behaviors appropriately to show respect for these differences • Does not adequately provide any specific examples of concepts learned regarding the different identities and norms across cultures, social determinants and factors that can affect the health of different patient populations, or best practices or procedures for ensuring equal access to quality healthcare services 	<ul style="list-style-type: none"> • Adequately describe how the activities they performed helped to develop awareness of and responsiveness to social and cultural differences by adapting behaviors appropriately to show respect for these differences • Adequately provides some specific examples of concepts learned regarding the different identities and norms across cultures, social determinants and factors that can affect the health of different patient populations, or best practices or procedures for ensuring equal access to quality healthcare services

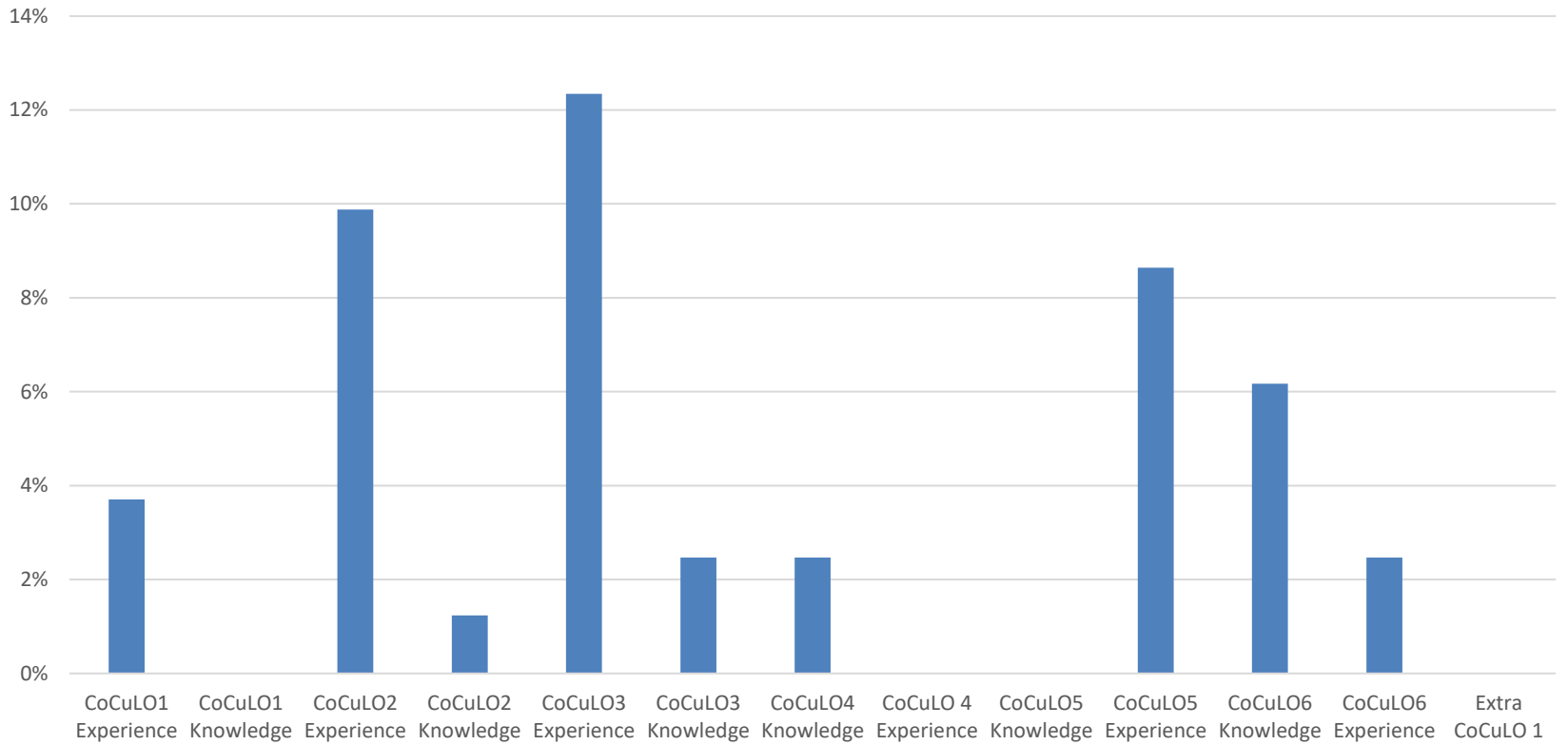
Brief Analysis of 2022-2023 Data:

- More than 80% of P1, 50% of P2s and 25% of P3 are behind on their completion of CoCuLOs.
- A quarter don't complete all of their CoCuLO by the time they graduate, with about one tenth not complete any CoCuLO whatsoever.
- Lowest completion rate was for experience-based CoCuLO 4
- Highest completion rate was for experience-based CoCuLO 3 and knowledge-based CoCuLO 6
- For those essays that are submitted nearly everyone received full credit for the with very little variation between CoCuLO

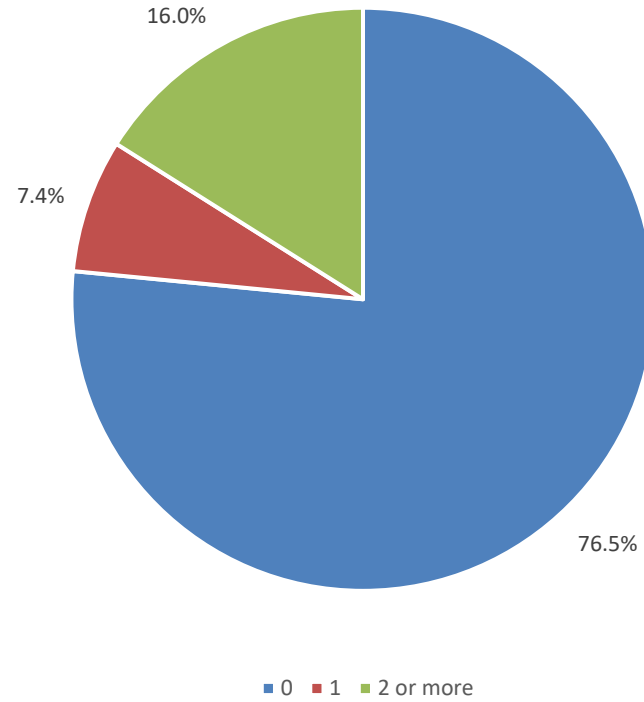
Class of 2026



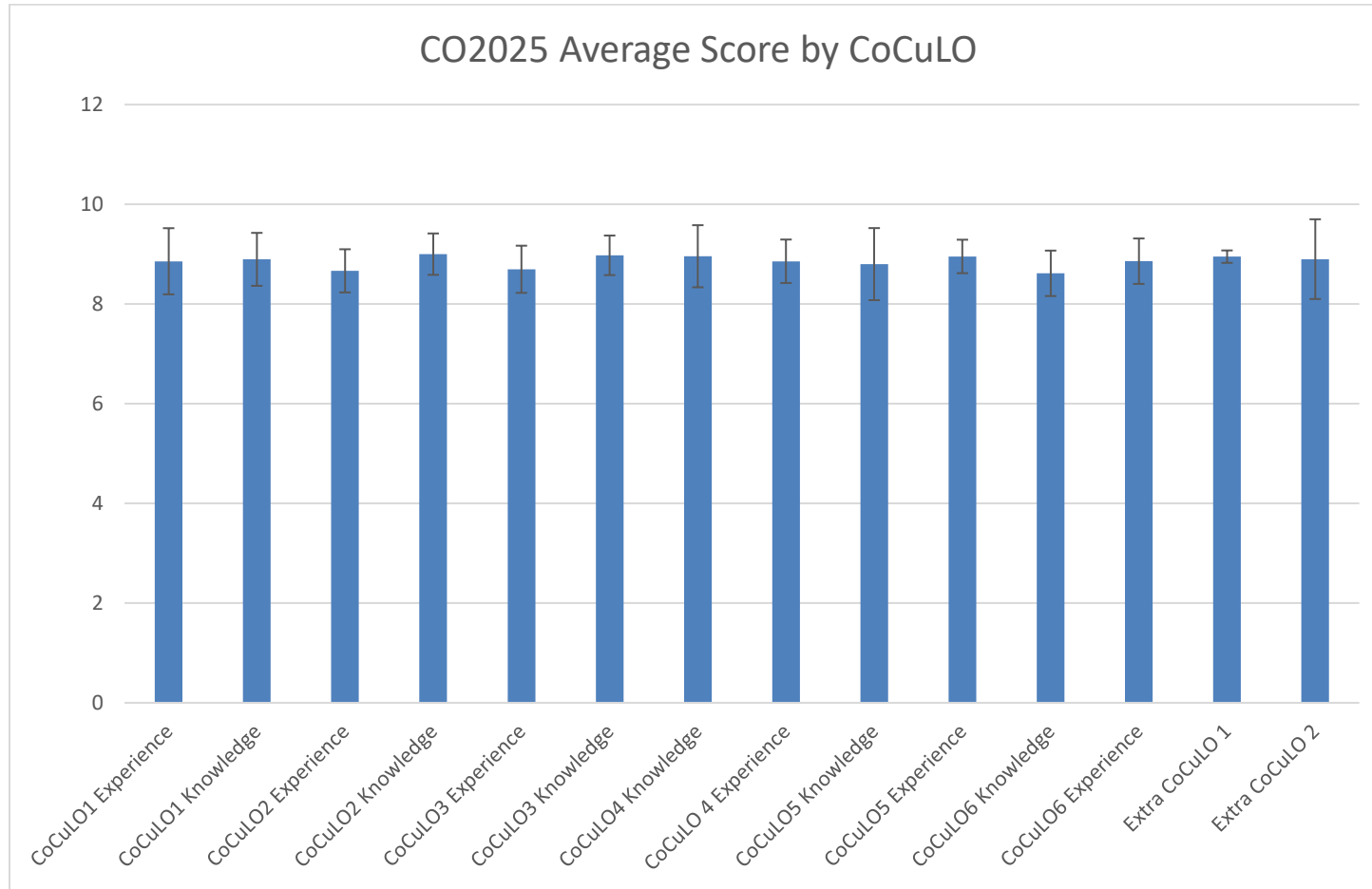
Porportion of CO2026 Completed Each CoCuLO

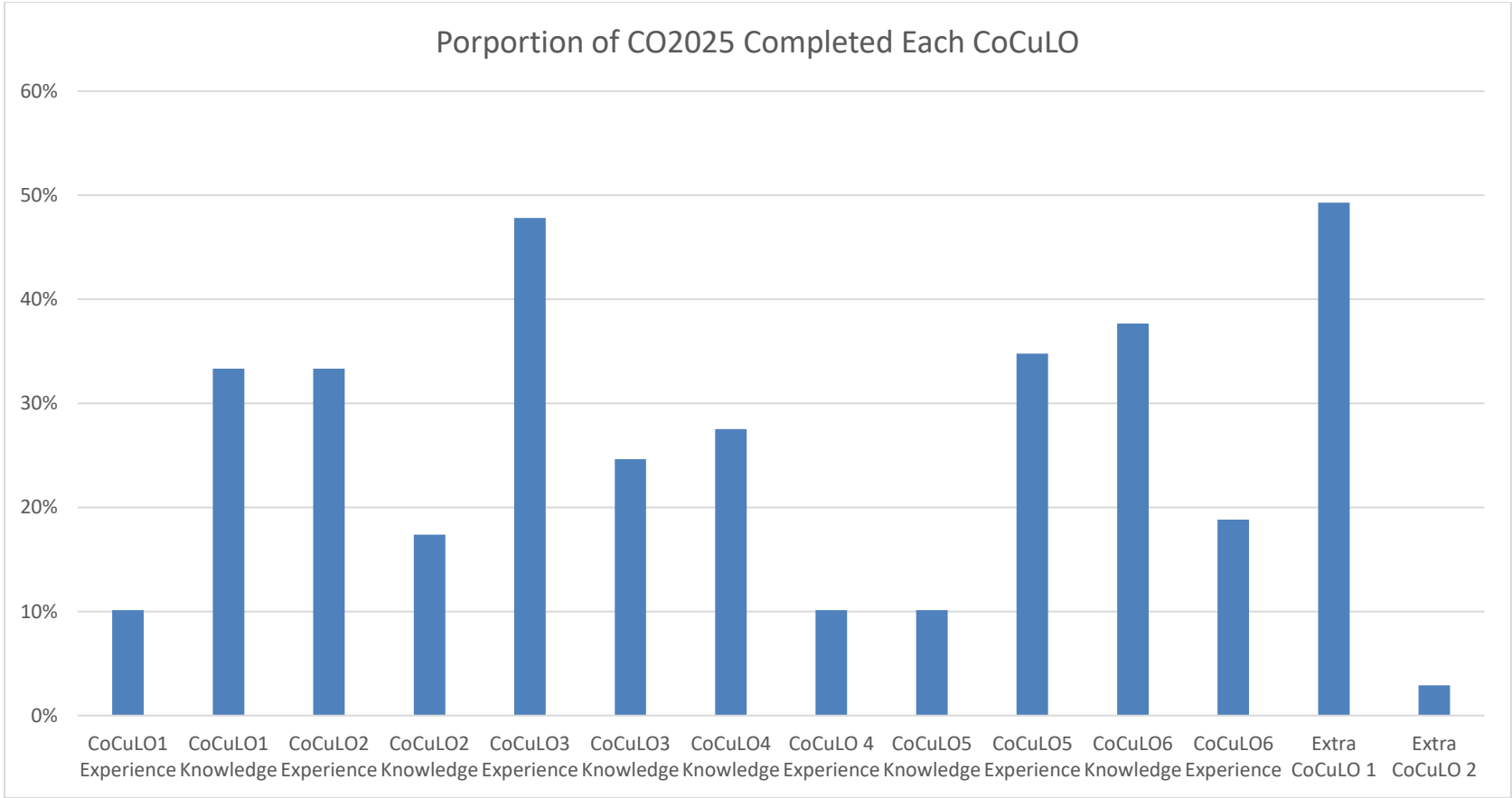


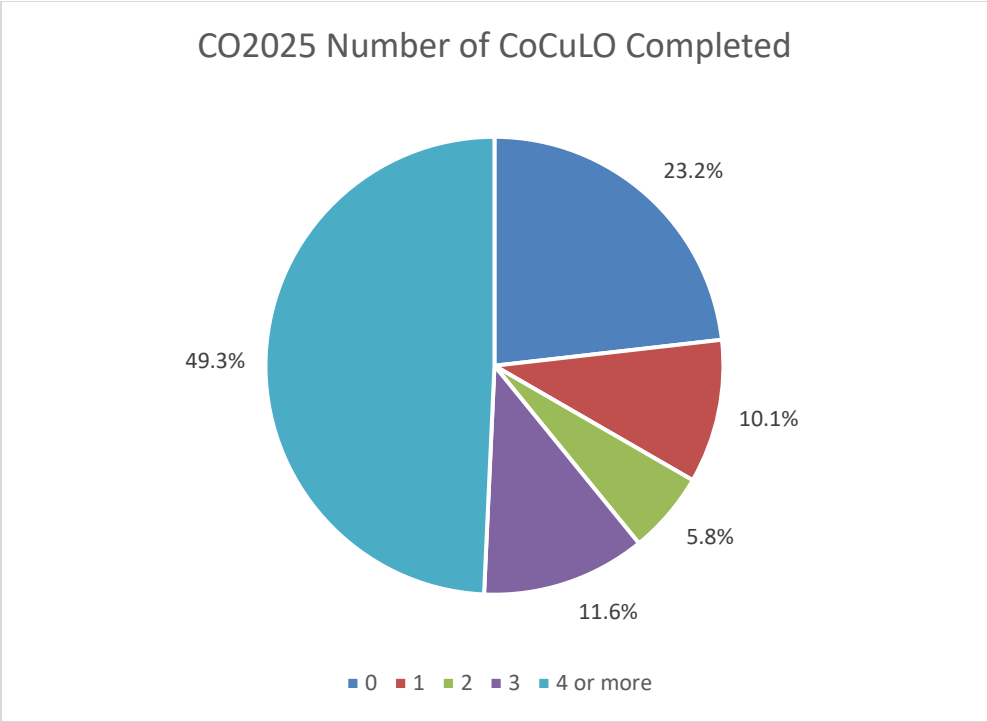
CO2026 Number of CoCuLOs Completed



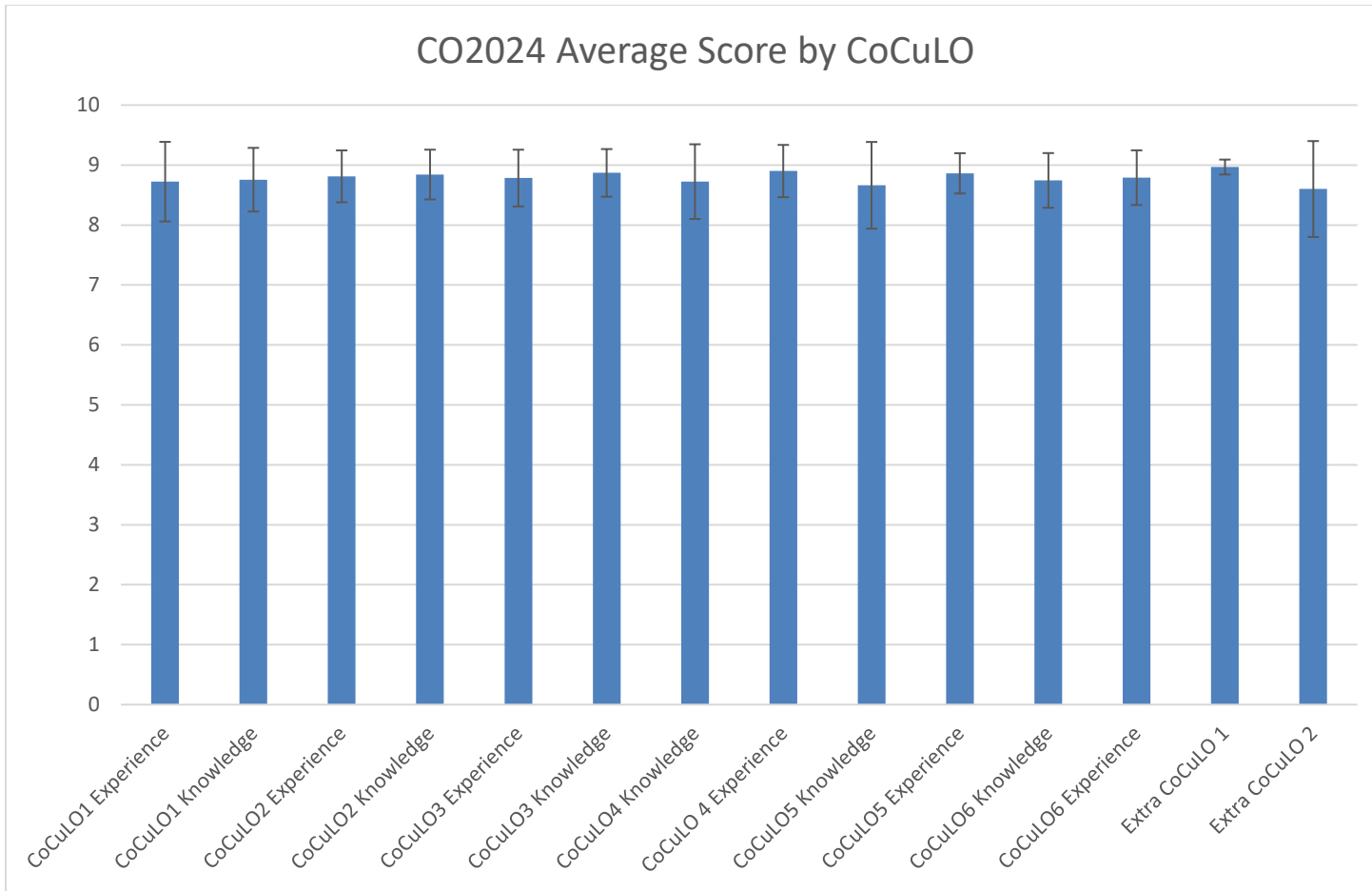
Class of 2025

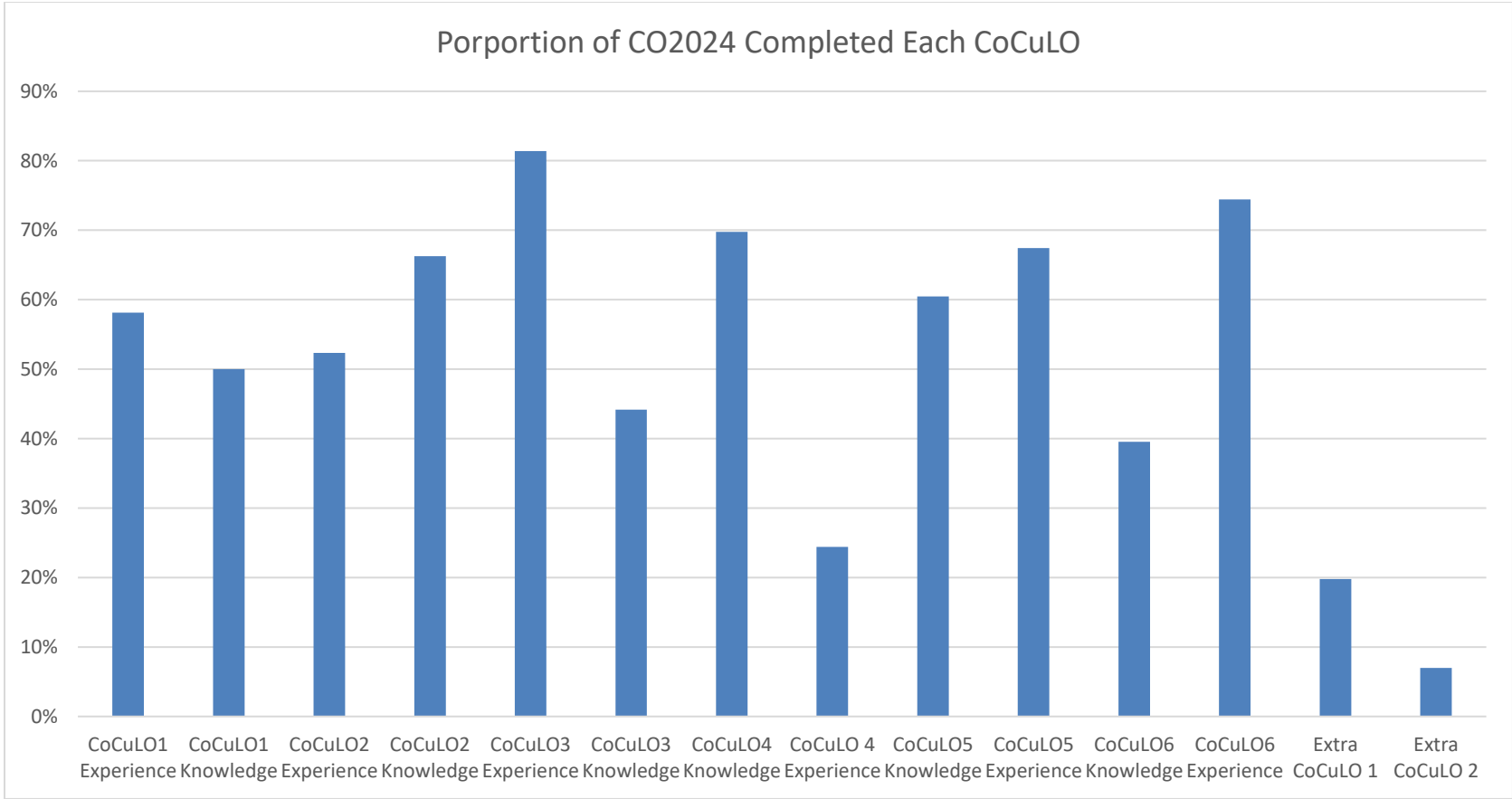




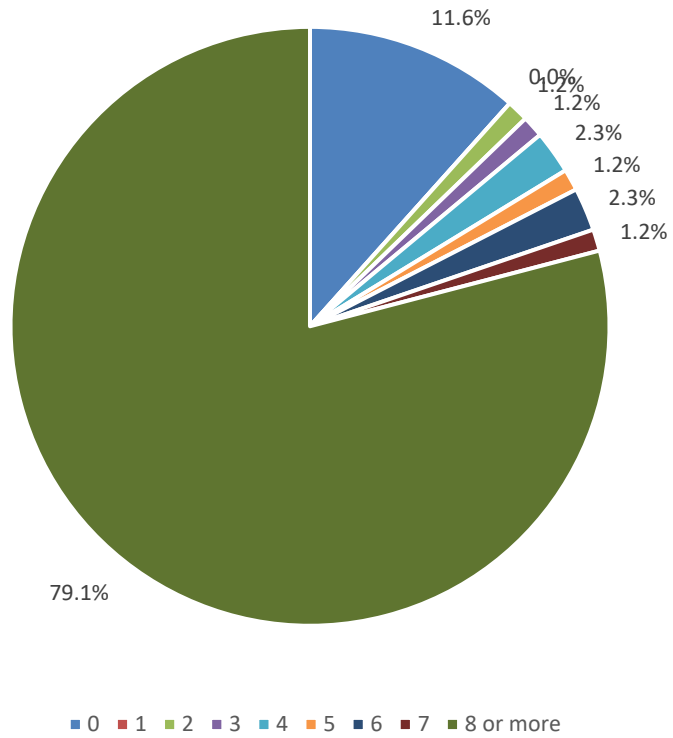


Class of 2024



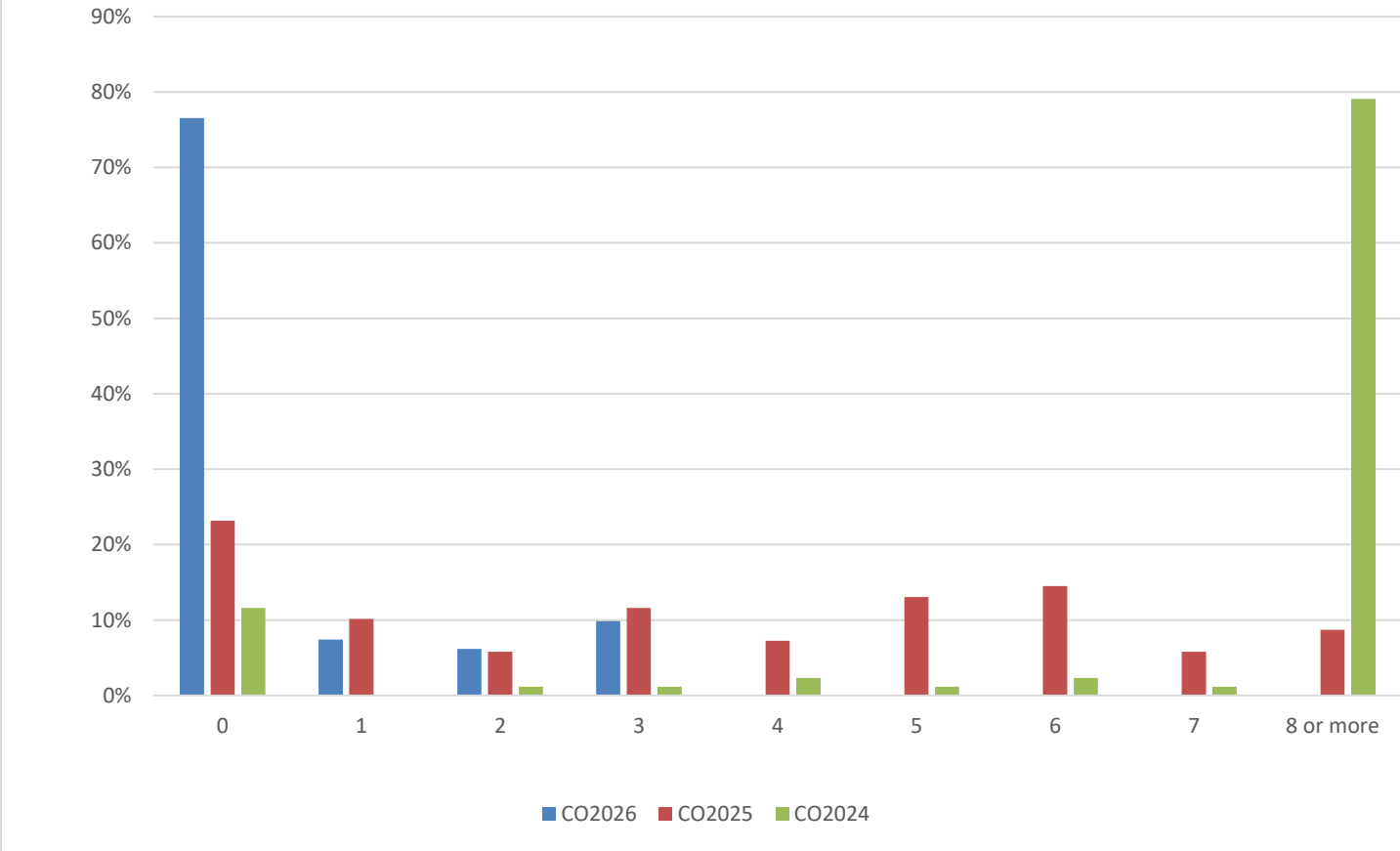


CO2024 Number of CoCuLO Completed

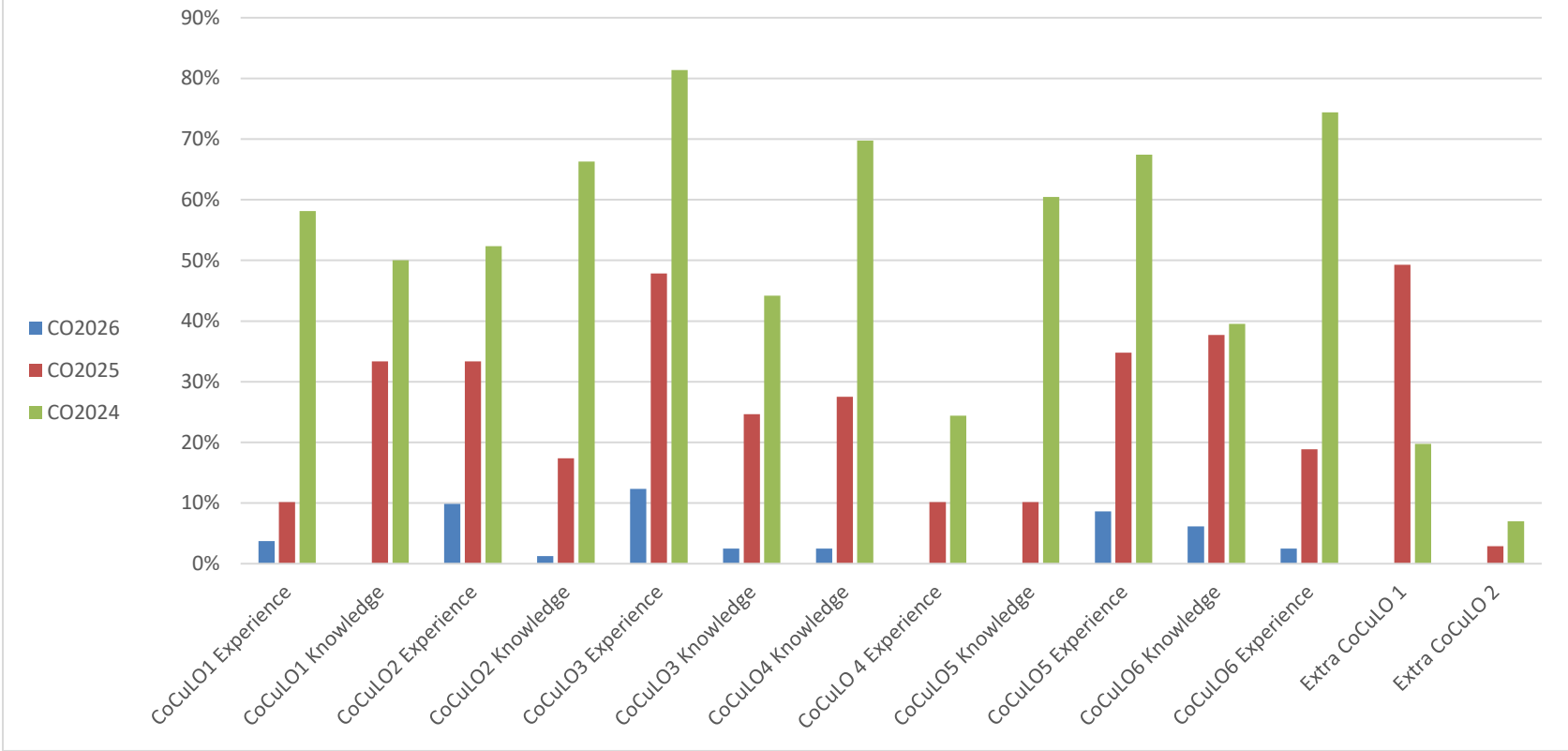


Class Comparison

Number of CoCuLOs Completed by Graduating Class



Porportion of Graduating Class Completing Each CoCuLO

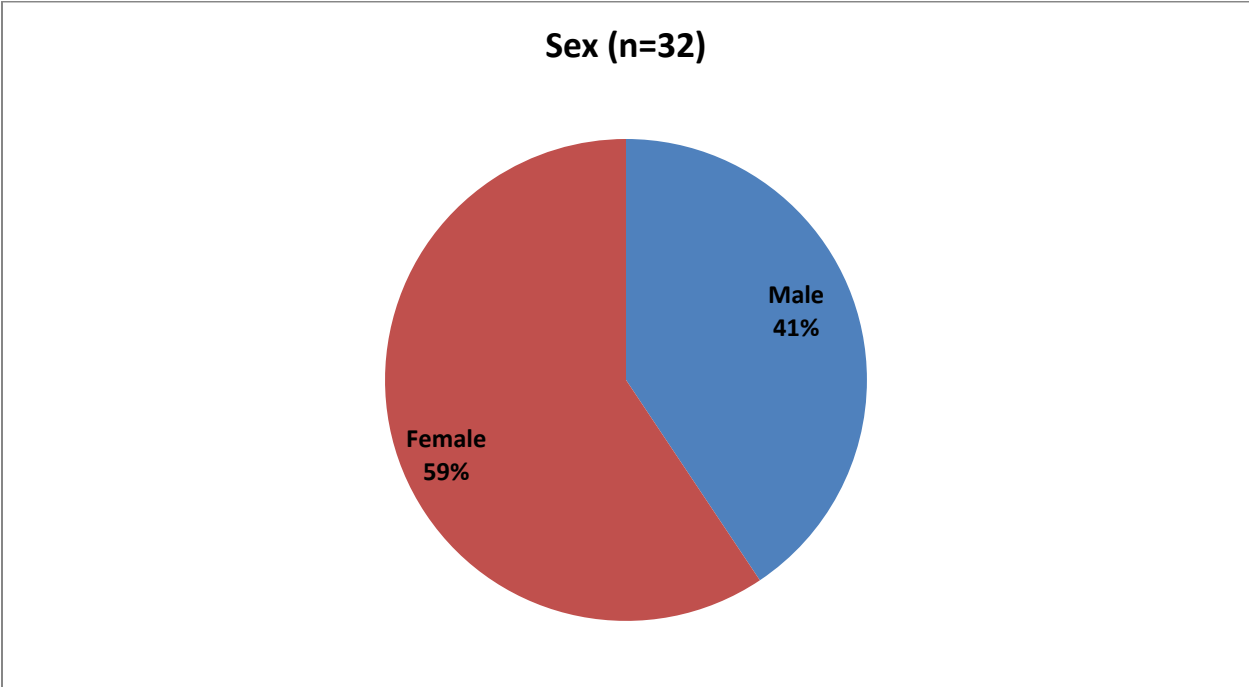


VIII. Admissions

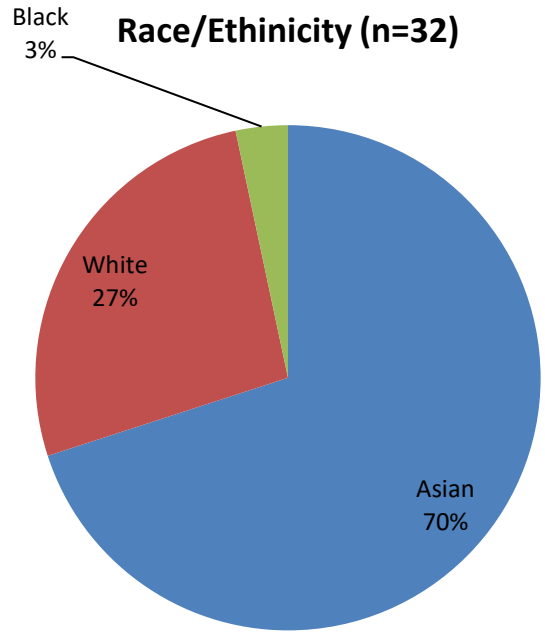
Class of 2028 Enrollment Demographics

Age (years):

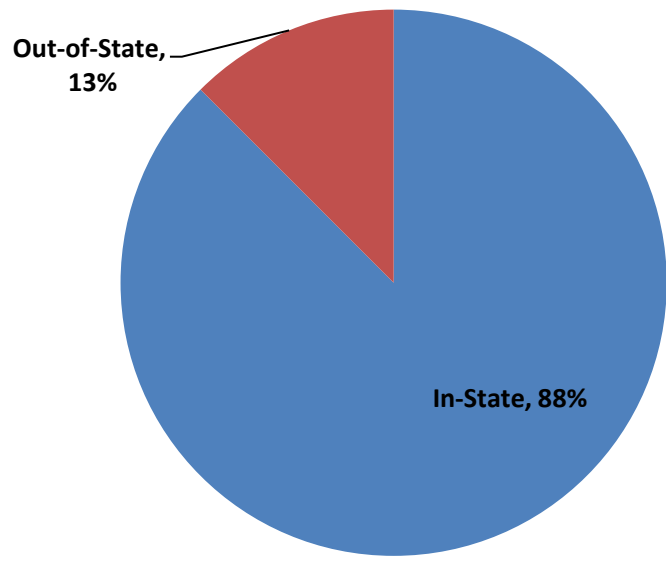
Minimum	20
Max	41
Median	25
Average	26



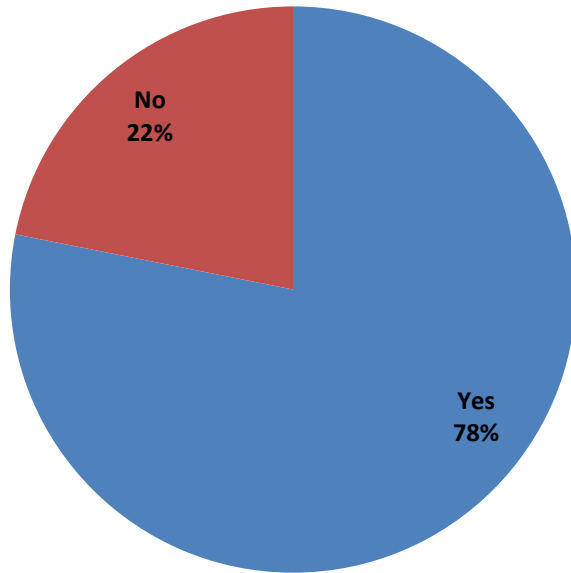
Race/Ethnicity (n=32)



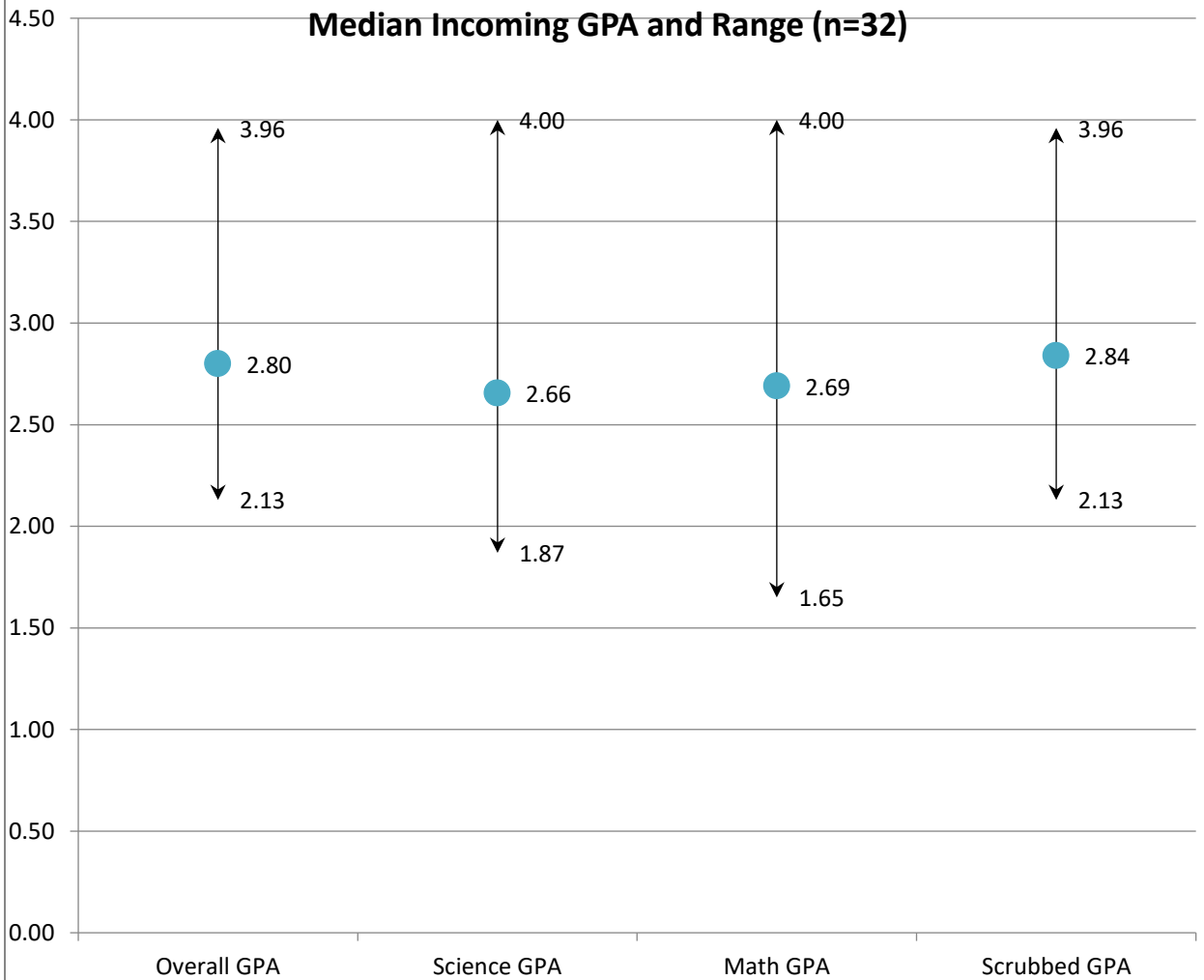
State of Primary Residence (n=32)

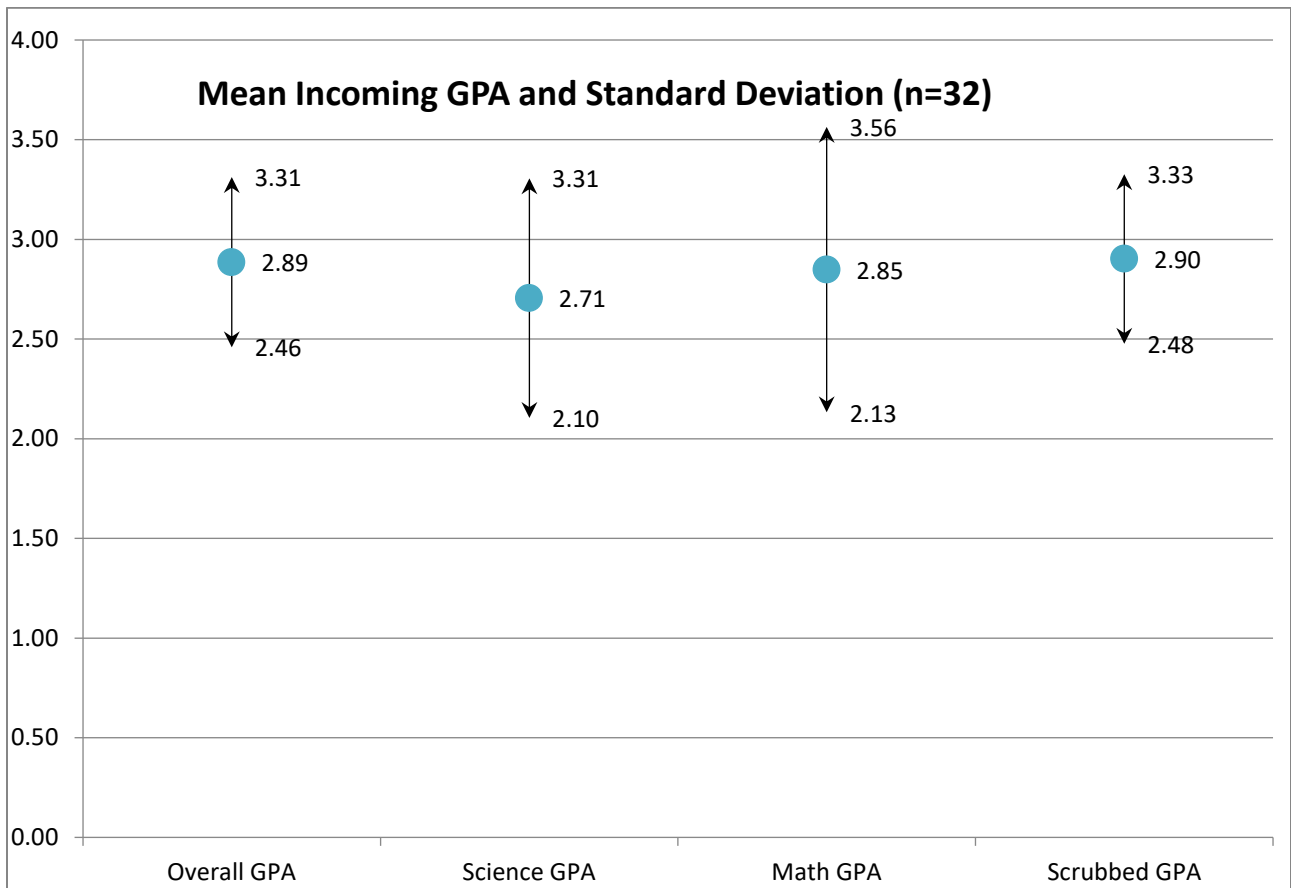


Bachelor's Degree Prior to Matriculation (n=32)



Median Incoming GPA and Range (n=32)





IX. 2022-2023 CLO Reports

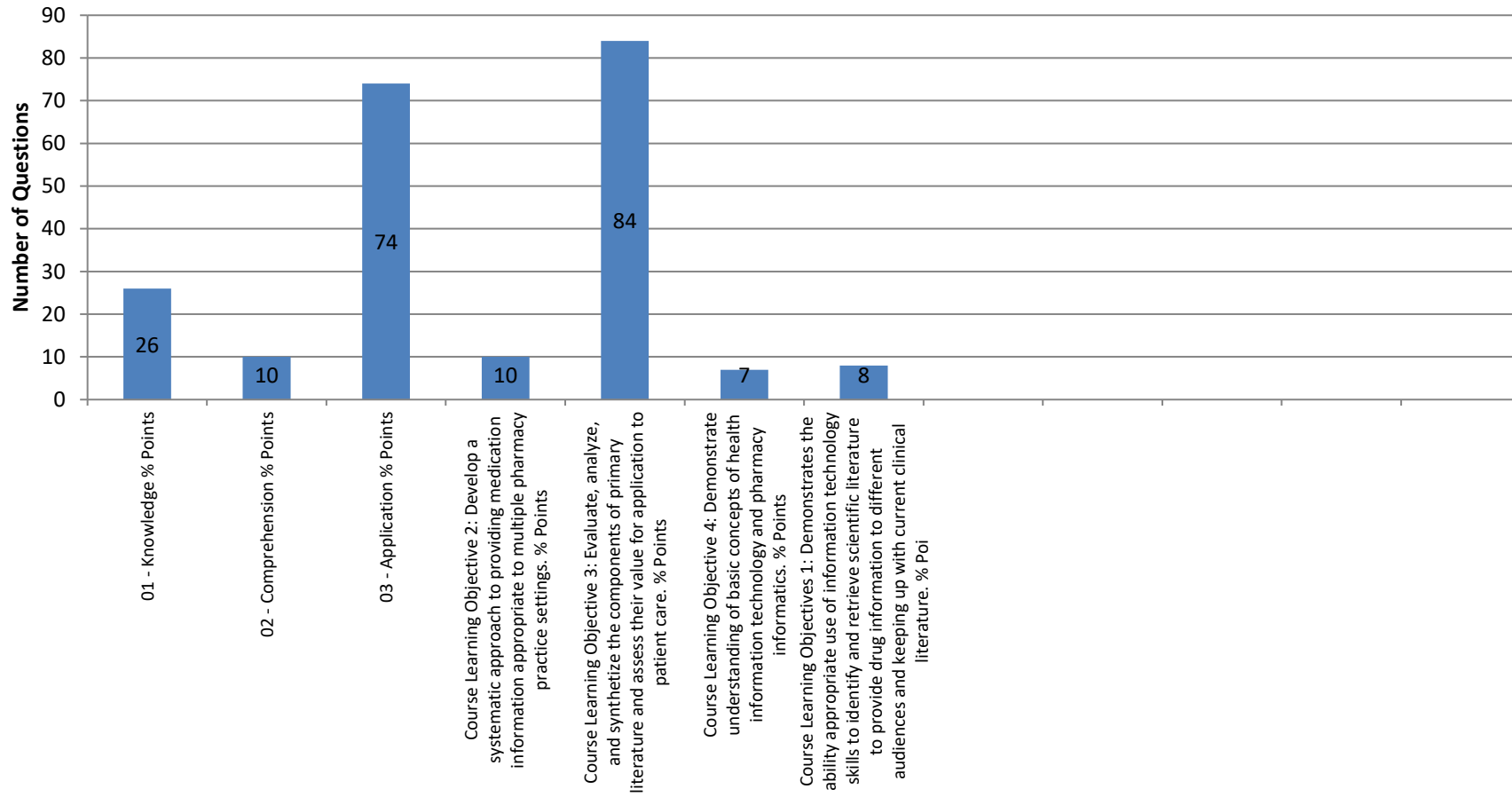
A. Fall 2022 CLO Reports

CAS 703- Drug Literature Evaluation & Drug Information CLO Report

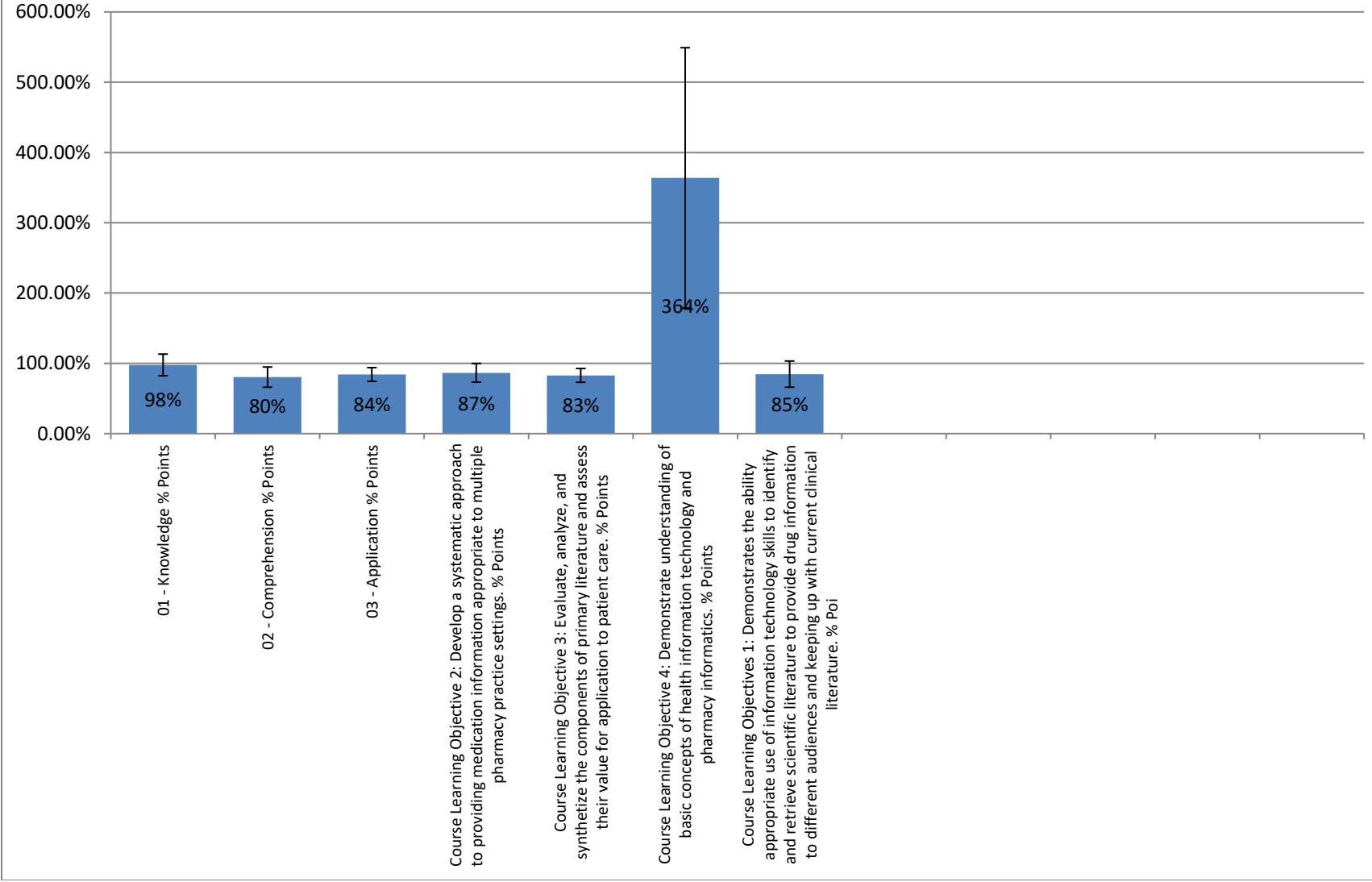
General Assessment: Assessments were mostly consisted of high-level application type questions focusing on CLO 3. Consider increasing the number of questions evaluating the other three CLO's unless those are assessed in a summative manner using different format not suited for exams. For some reason performance on CLO4 is significantly above 100%, which implies that these were primarily bonus questions though this is not clear.

Name	01 - Knowledge % Points	02 - Comprehension % Points	03 - Application % Points	Course Learning Objective 2: Develop a systematic approach to providing medication information appropriate to multiple pharmacy practice settings. % Points	Course Learning Objective 3: Evaluate, analyze, and synthesize the components of primary literature and assess their value for application to patient care. % Points	Course Learning Objective 4: Demonstrate understanding of basic concepts of health information technology and pharmacy informatics. % Points	Course Learning Objectives 1: Demonstrates the ability appropriate use of information technology skills to identify and retrieve scientific literature to provide drug information to different audiences and keeping up with current clinical literature. % Points
# Assessments	2	2	2	2	2	2	2
# Items	26	10	74	10	84	7	8
MEAN	97.70%	80.36%	84.10%	86.50%	82.82%	364.05%	84.64%
Standard Deviation	15.43%	14.41%	9.74%	13.30%	9.84%	185.05%	18.64%
MEDIAN	101.90%	81.82%	84.51%	90.91%	84.15%	400.00%	87.50%
MIN	59.05%	36.36%	52.38%	36.36%	54.51%	0.00%	25.00%
MAX	140.00%	100.00%	101.41%	100.00%	101.22%	700.00%	100.00%
25th Percentile	84.76%	72.73%	77.46%	81.82%	75.61%	200.00%	75.00%
75th Percentile	109.52%	90.91%	91.89%	100.00%	90.24%	500.00%	100.00%

Number of Questions Assessing the Outcome

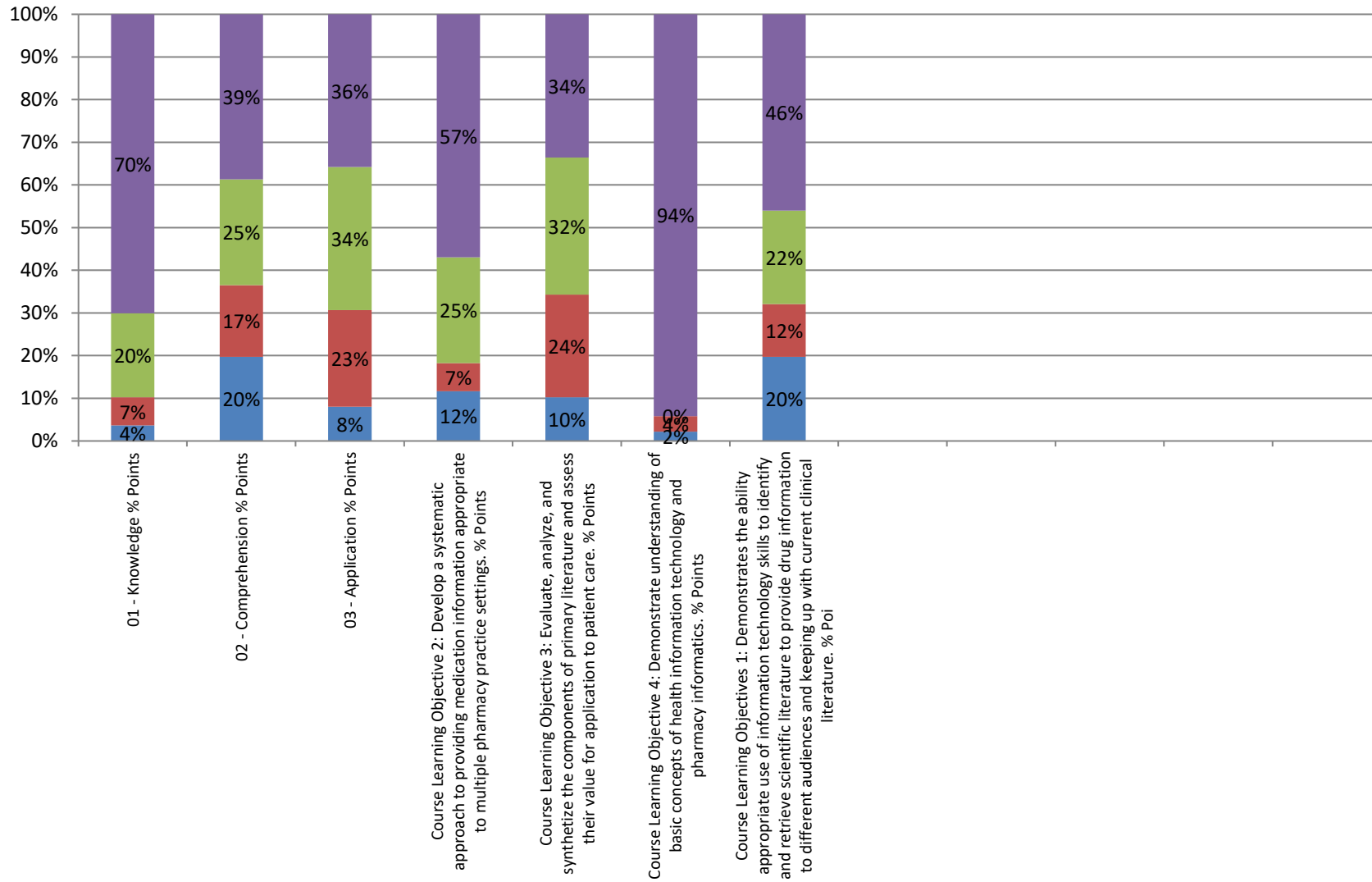


Mean Score by Category (with error bars representing standard deviation)



Proficiency Level Distribution by Category

■ % Initial ■ % Developing ■ % Developed ■ % Proficient

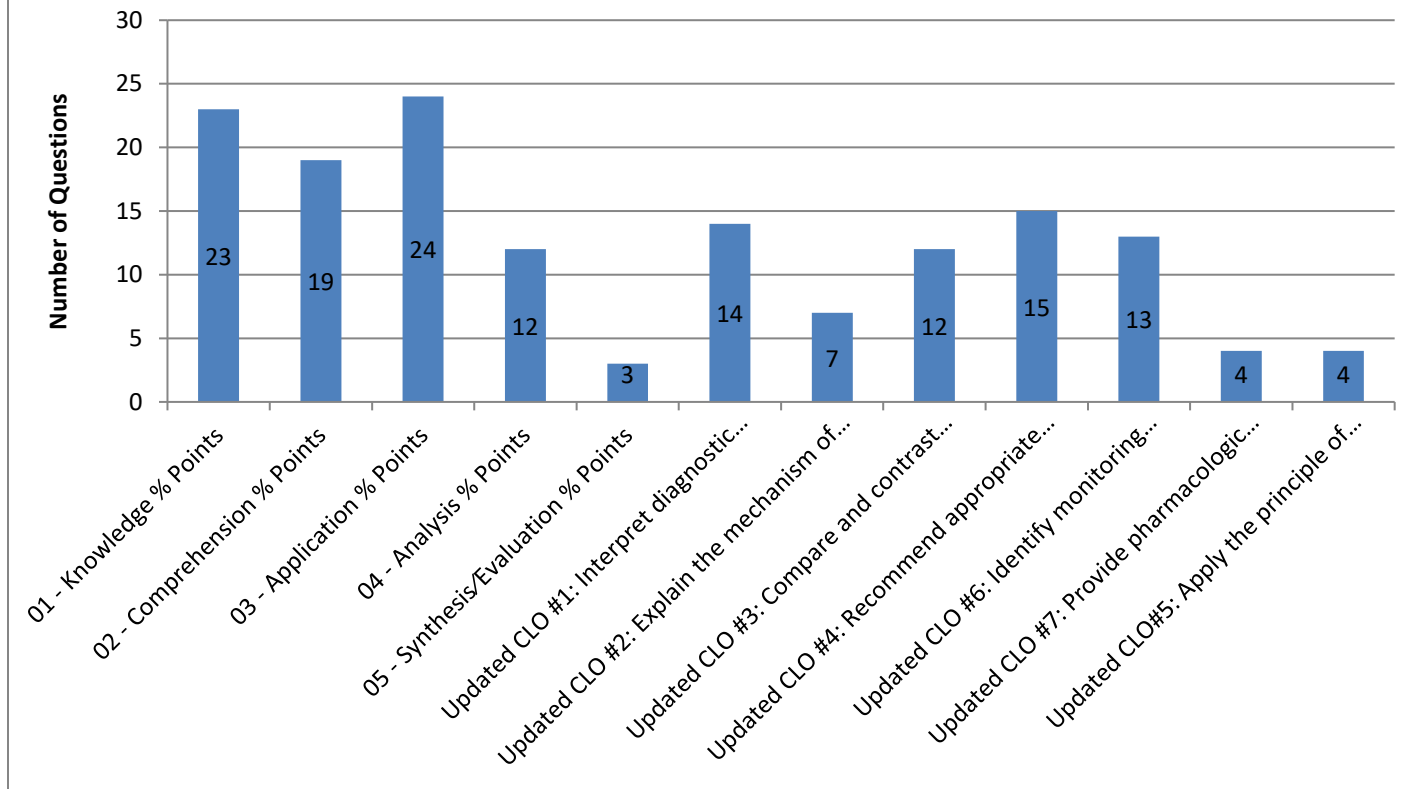


CAS 705- Pharmacotherapy I CLO Report

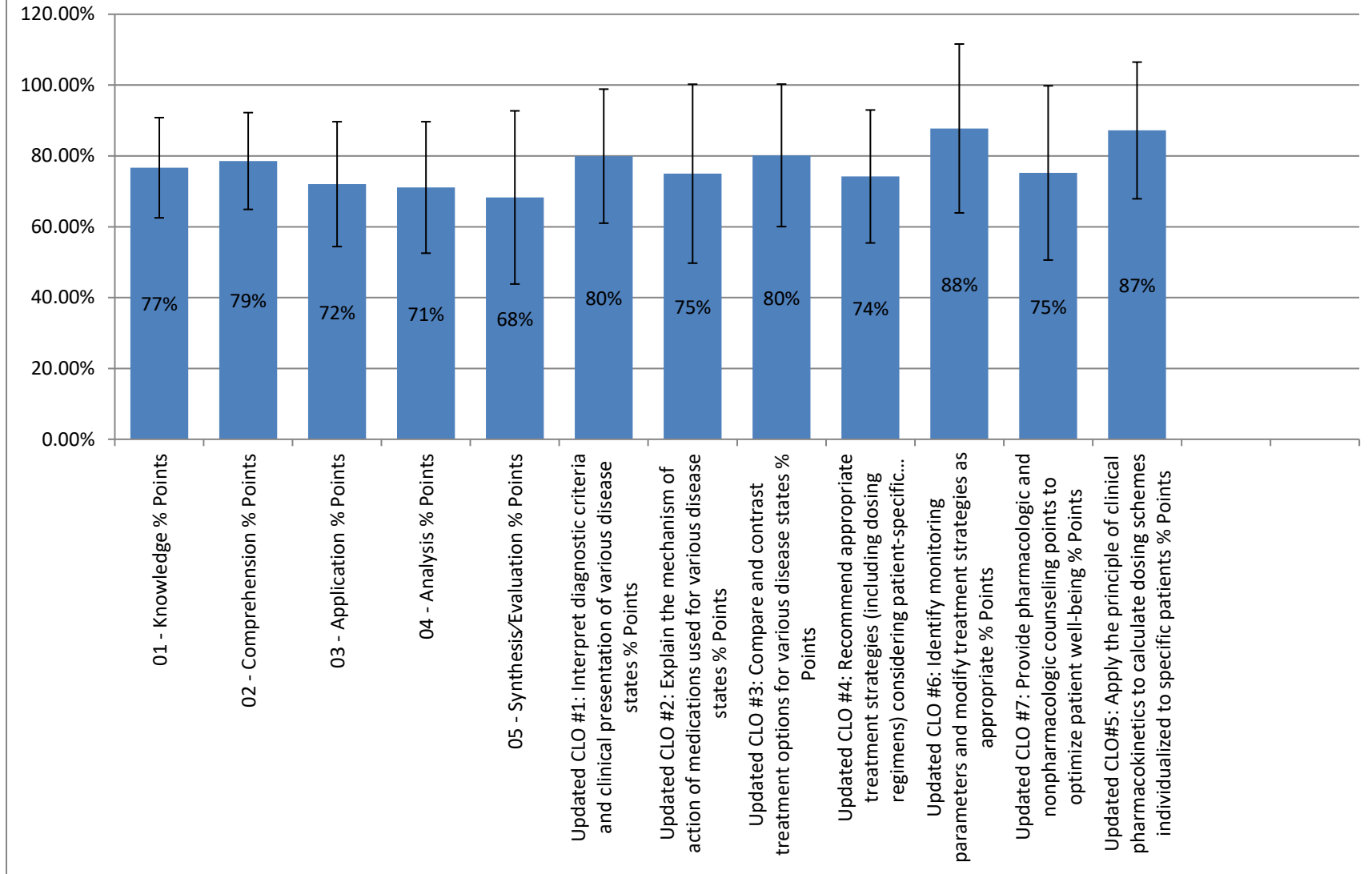
General Assessment: The complexity of the questions appears to be well distributed. It appears that only about 75 questions have been tagged which usually as a result of many questions being assessed are not tagged. Usually if a question does not correspond to a specific CLO it implies that either another CLO should be added to the course or the question is not essential since it does not measure the student proficiency of one of the course outcomes. It also appears that a large number of students are having difficulty with questions related to CLO 7.

Name	01 - Knowledge % Points	02 - Comprehension % Points	03 - Application % Points	04 - Analysis % Points	05 - Synthesis/Evaluation % Points	Updated CLO #1: Interpret diagnostic criteria and clinical presentation of various disease states % Points	Updated CLO #2: Explain the mechanism of action of medications used for various disease states % Points	Updated CLO #3: Compare and contrast treatment options for various disease states % Points	Updated CLO #4: Recommend appropriate treatment strategies (including dosing regimens) considering patient-specific characteristics and evidence based medicine % Points	Updated CLO #6: Identify monitoring parameters and modify treatment strategies as appropriate % Points	Updated CLO #7: Provide pharmacologic and nonpharmacologic counseling points to optimize patient well-being % Points	Updated CLO#5: Apply the principle of clinical pharmacokinetics to calculate dosing schemes individualized to specific patients % Points
# Assessments	6	6	8	6	2	4	4	4	4	4	4	4
# Items	23	19	24	12	3	14	7	12	15	13	4	4
MEAN	76.67%	78.56%	72.04%	71.10%	68.27%	79.93%	74.98%	80.16%	74.20%	87.75%	75.20%	87.20%
Standard Deviation	14.14%	13.66%	17.62%	18.56%	24.44%	18.92%	25.26%	20.11%	18.77%	23.84%	24.60%	19.30%
MEDIAN	78.72%	77.78%	72.73%	72.73%	66.67%	81.82%	83.33%	83.33%	75.00%	85.42%	66.67%	100.00%
MIN	23.91%	41.18%	18.18%	9.09%	0.00%	0.00%	0.00%	16.67%	25.00%	33.33%	0.00%	33.33%
MAX	100.00%	111.11%	111.11%	110.00%	100.00%	109.09%	116.67%	116.67%	107.69%	133.33%	100.00%	100.00%
25th Percentile	68.09%	68.00%	62.50%	63.64%	55.56%	66.67%	63.64%	66.67%	61.54%	68.75%	66.67%	66.67%
75th Percentile	86.17%	88.24%	81.82%	85.00%	90.00%	100.00%	100.00%	100.00%	88.89%	100.00%	100.00%	100.00%

Number of Questions Assessing the Outcome

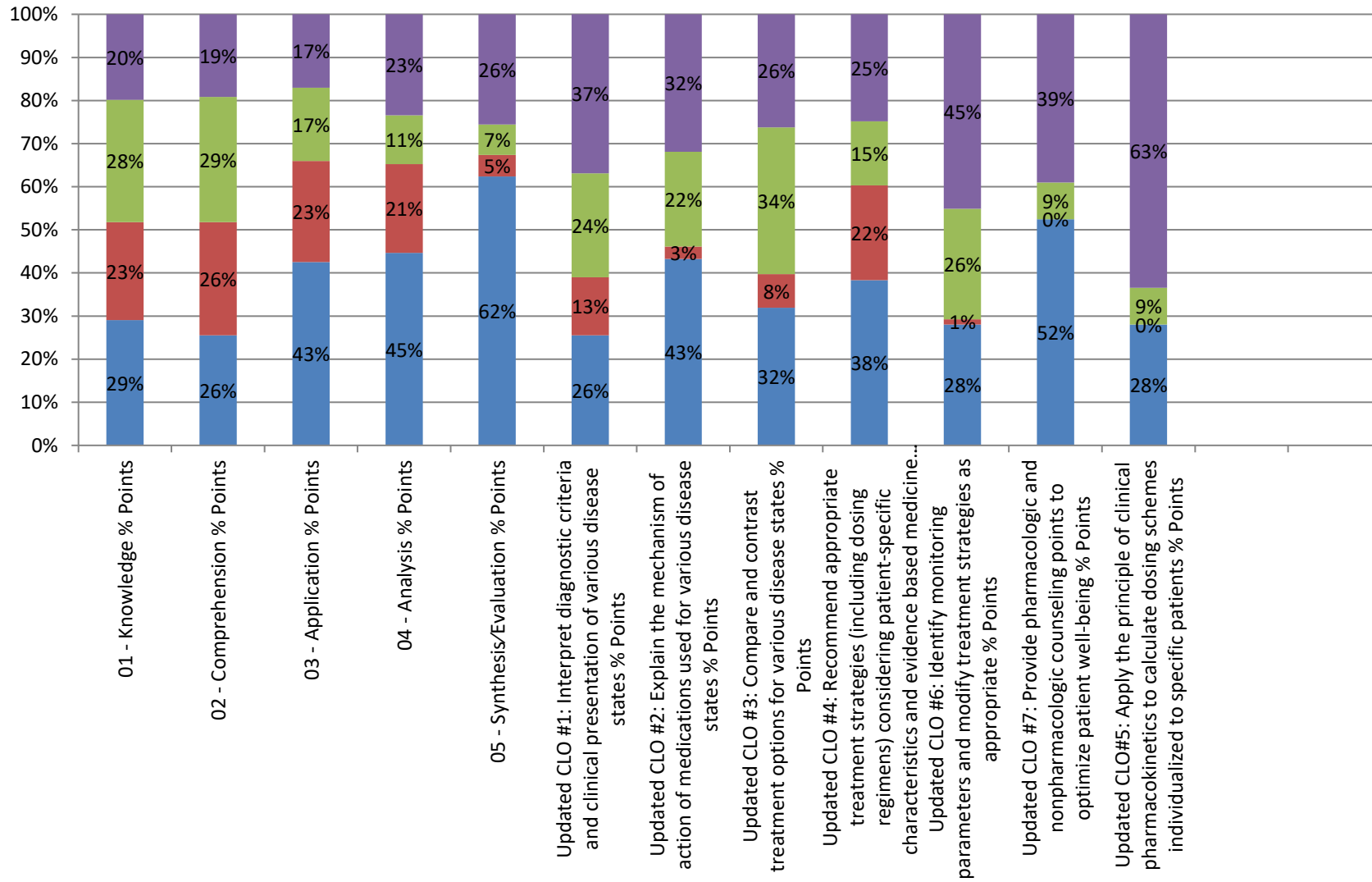


Mean Score by Category (with error bars representing standard deviation)



Proficiency Level Distribution by Category

■ % Initial ■ % Developing ■ % Developed ■ % Proficient

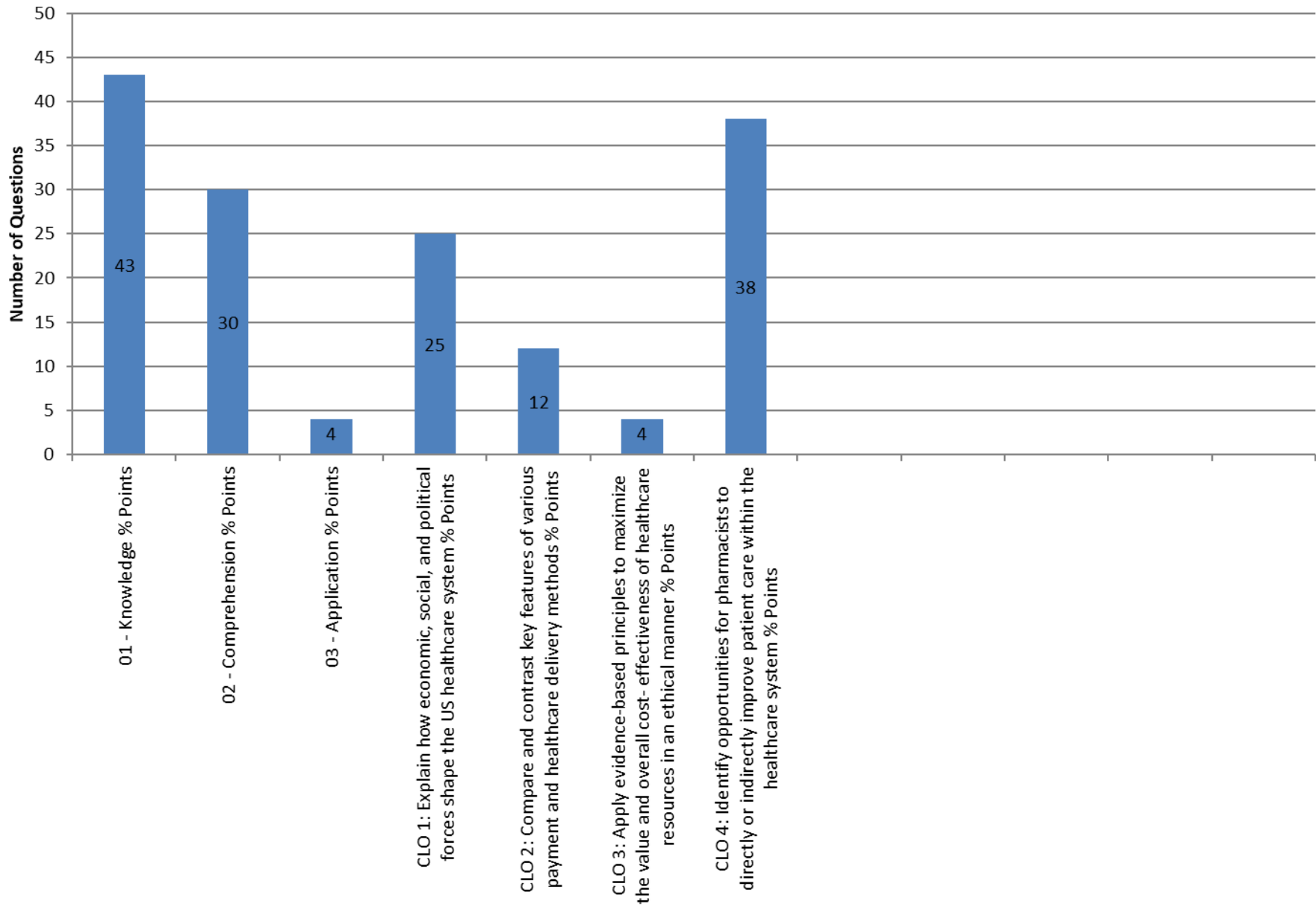


CAS 801 Pharmacy and the Health Care System CLO Report

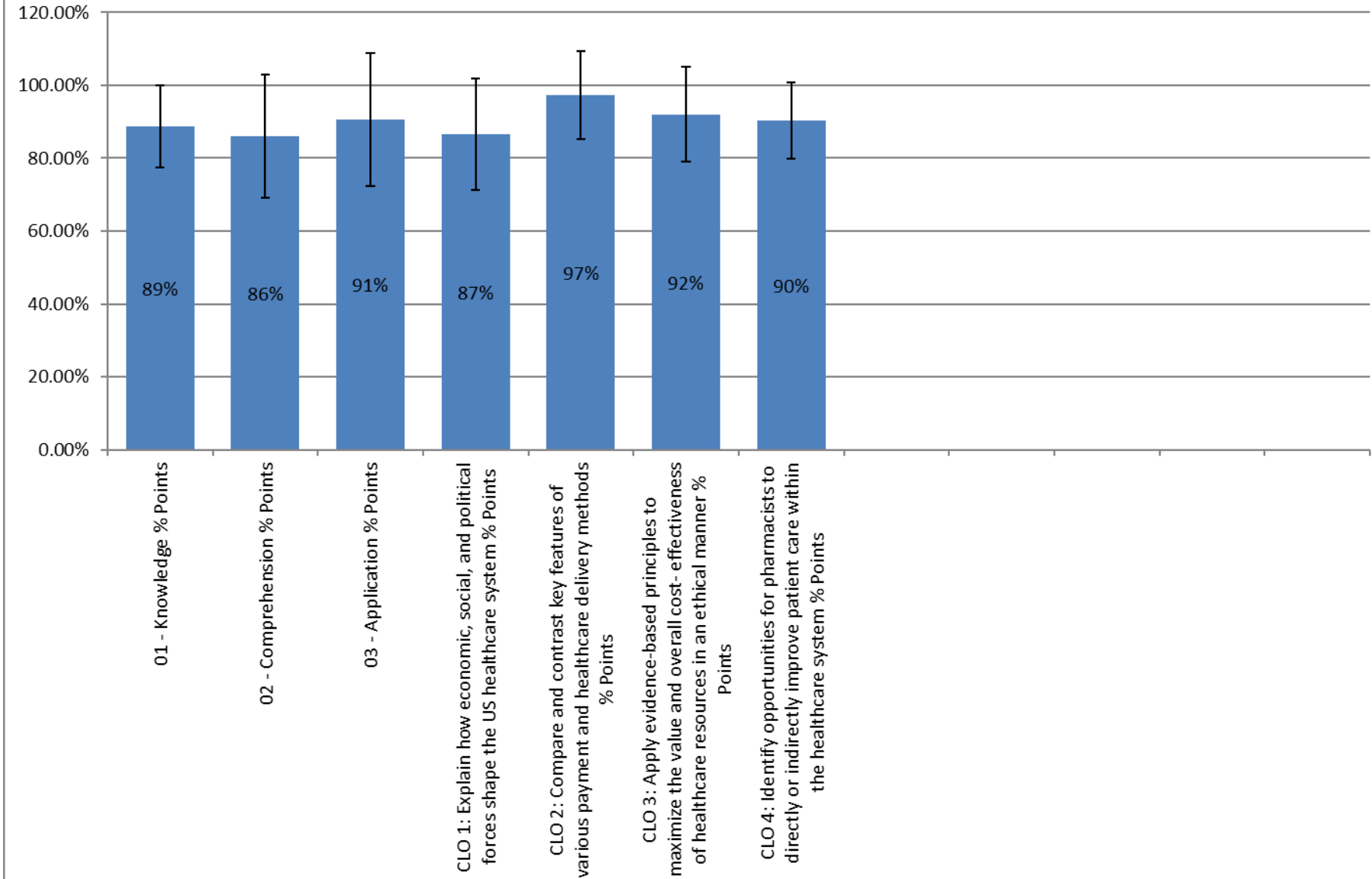
General Assessment: CLO 1, 2 and 4 are sufficiently assessed. CLO 3 is primarily assessed in a form of an essay. Application based questions are only assessed in 4 questions and appear to demonstrate the lowest performance by the students. May consider increasing assessment of higher level questions in the future

Name	01 - Knowledge % Points	02 - Comprehension % Points	03 - Application % Points	CLO 1: Explain how economic, social, and political forces shape the US healthcare system % Points	CLO 2: Compare and contrast key features of various payment and healthcare delivery methods % Points	CLO 3: Apply evidence-based principles to maximize the value and overall cost-effectiveness of healthcare resources in an ethical manner % Points	CLO 4: Identify opportunities for pharmacists to directly or indirectly improve patient care within the healthcare system % Points
	3	3	2	3	2	1	2
	43	30	4	25	12	4	38
MEAN	88.73%	86.08%	90.60%	86.57%	97.24%	91.99%	90.35%
Standard Deviation	11.21%	16.90%	18.28%	15.25%	12.13%	13.05%	10.45%
MEDIAN	90.91%	100.00%	100.00%	91.67%	100.00%	100.00%	87.86%
MIN	47.06%	33.33%	33.33%	31.25%	54.55%	50.00%	57.14%
MAX	104.55%	100.00%	116.67%	105.56%	110.00%	100.00%	100.00%
25th Percentile	81.82%	66.67%	83.33%	77.78%	90.91%	75.00%	85.71%
75th Percentile	95.45%	100.00%	100.00%	100.00%	109.09%	100.00%	100.00%

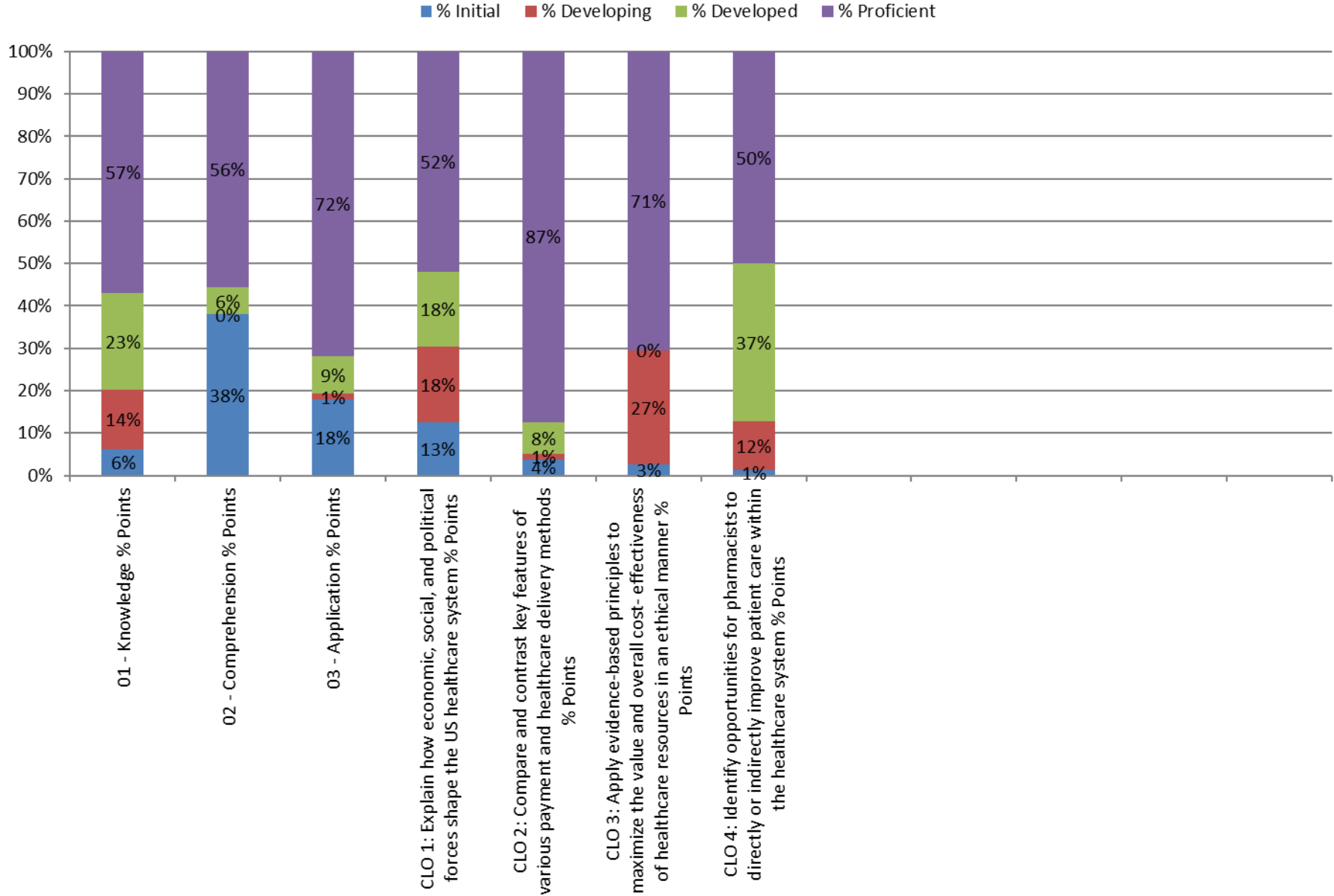
Number of Questions Assessing the Outcome



Mean Score by Category (with error bars representing standard deviation)



Proficiency Level Distribution by Category

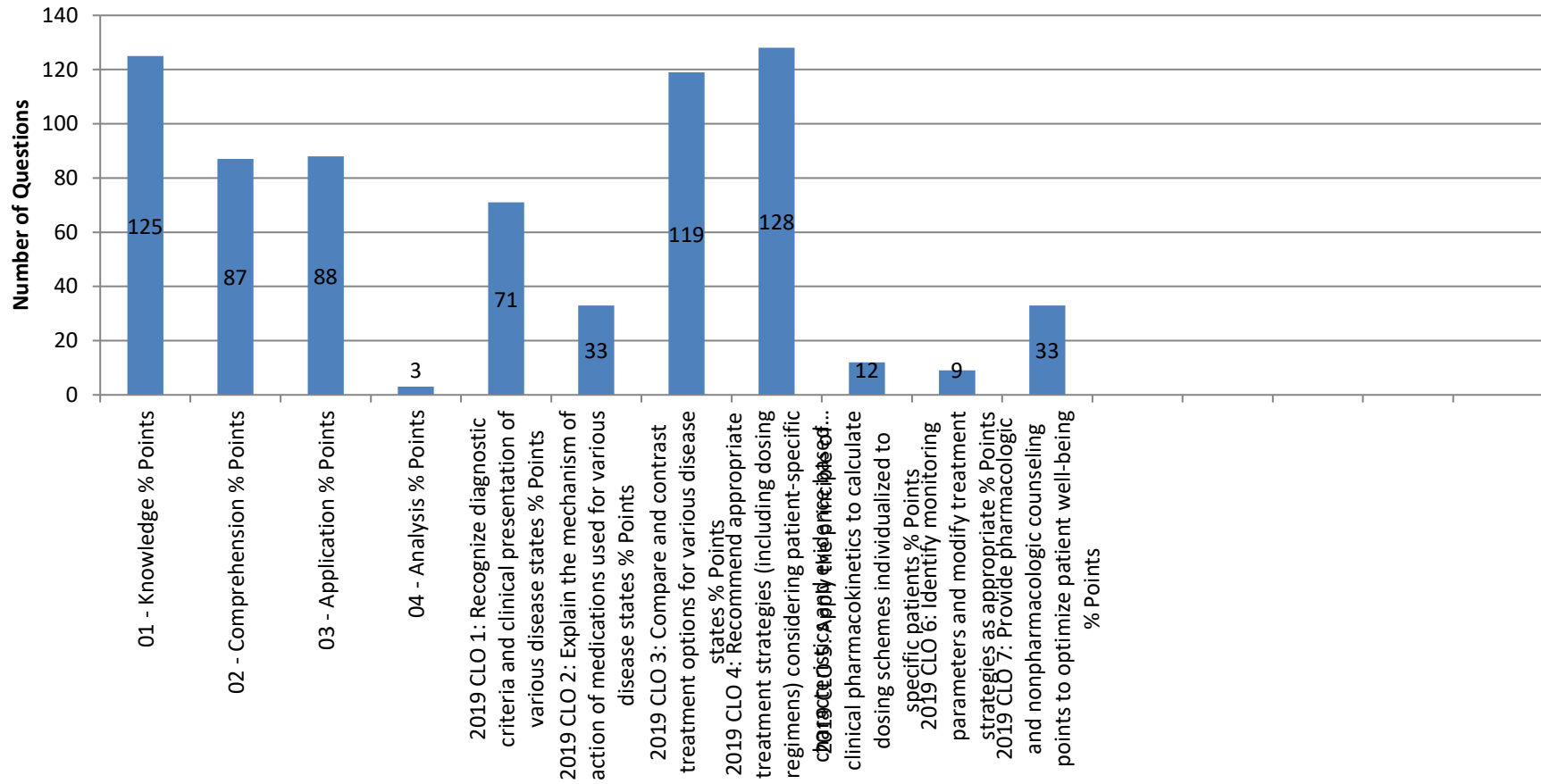


CAS 805 Pharmacotherapy III CLO Report

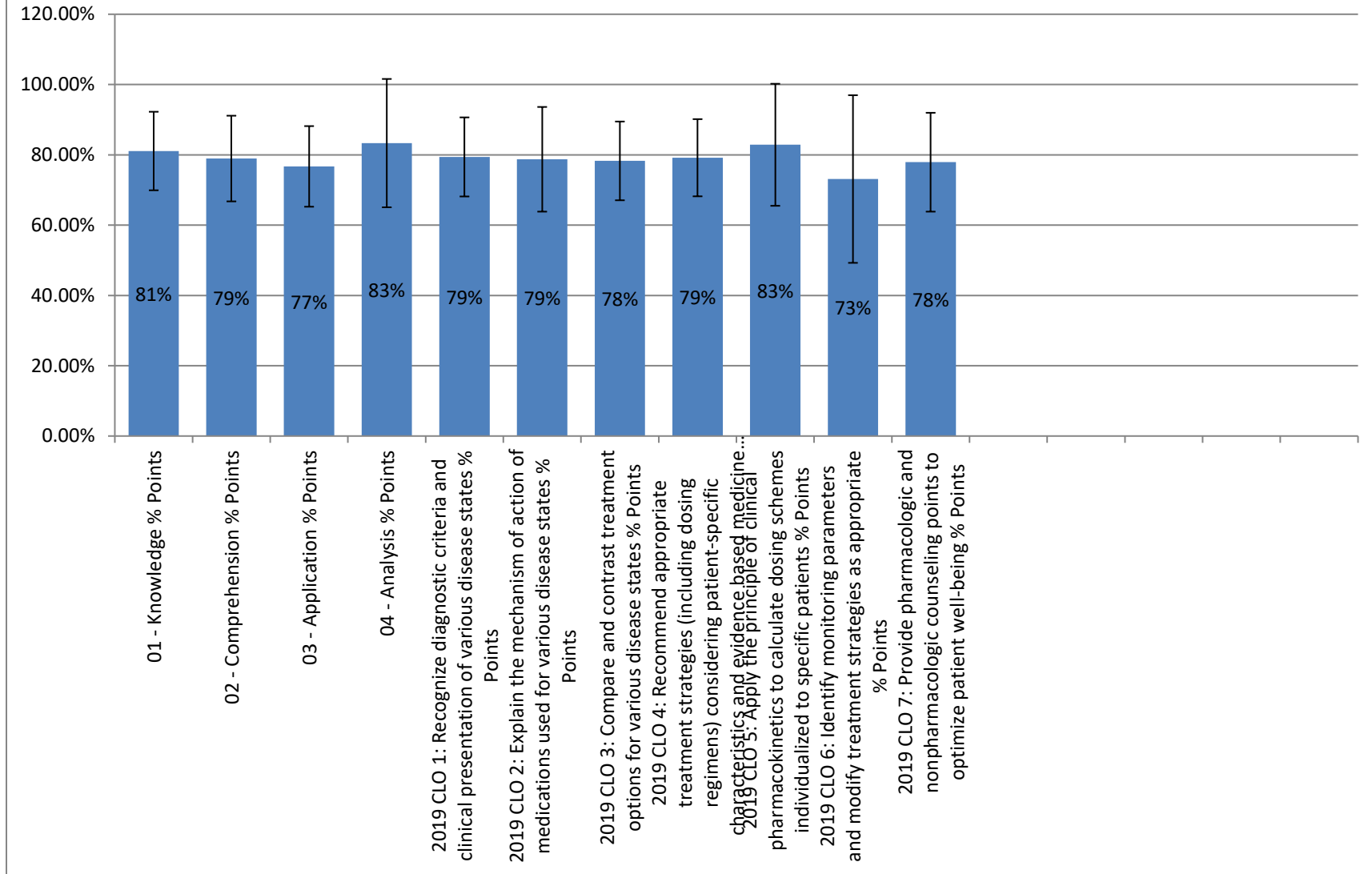
General Assessment: The complexity of questions is well distributed and even includes a few analysis questions which are generally difficulty to develop for an exam format. Relative to other CLOs, there is generally a lower focus for CLOs 5 and 6. It appears that student performance on CLO5 is slightly lower relative to other CLOs, though not to an extent that any major changes need to be implemented.

Name	01 - Knowledge % Points	02 - Comprehension % Points	03 - Application % Points	04 - Analysis % Points	2019 CLO 1: Recognize diagnostic criteria and clinical presentation of various disease states % Points	2019 CLO 2: Explain the mechanism of action of medications used for various disease states % Points	2019 CLO 3: Compare and contrast treatment options for various disease states % Points	2019 CLO 4: Recommend appropriate treatment strategies (including dosing regimens) considering patient-specific characteristics and evidence based medicine % Points	2019 CLO 5: Apply the principle of clinical pharmacokinetics to calculate dosing schemes individualized to specific patients % Points	2019 CLO 6: Identify monitoring parameters and modify treatment strategies as appropriate % Points	2019 CLO 7: Provide pharmacologic and nonpharmacologic counseling points to optimize patient well-being % Points
# Assessments	5	5	5	1	5	5	5	5	4	4	4
# Items	125	87	88	3	71	33	119	128	12	9	33
MEAN	81.09%	78.95%	76.71%	83.34%	79.40%	78.73%	78.28%	79.18%	82.86%	73.12%	77.90%
Standard Deviation	11.17%	12.19%	11.47%	18.26%	11.25%	14.89%	11.20%	10.98%	17.36%	23.85%	14.06%
MEDIAN	82.29%	79.41%	76.42%	83.34%	80.43%	80.77%	78.50%	79.76%	80.00%	80.00%	81.25%
MIN	44.43%	39.51%	46.24%	66.67%	46.79%	30.00%	47.73%	47.01%	25.00%	0.00%	28.57%
MAX	101.14%	102.55%	102.03%	100.00%	100.43%	101.92%	101.56%	101.93%	100.00%	100.00%	100.00%
25th Percentile	75.86%	71.76%	70.12%	66.67%	73.91%	73.08%	72.27%	72.73%	80.00%	60.00%	71.88%
75th Percentile	87.86%	88.04%	82.72%	100.00%	87.39%	89.23%	85.48%	86.16%	100.00%	100.00%	87.50%

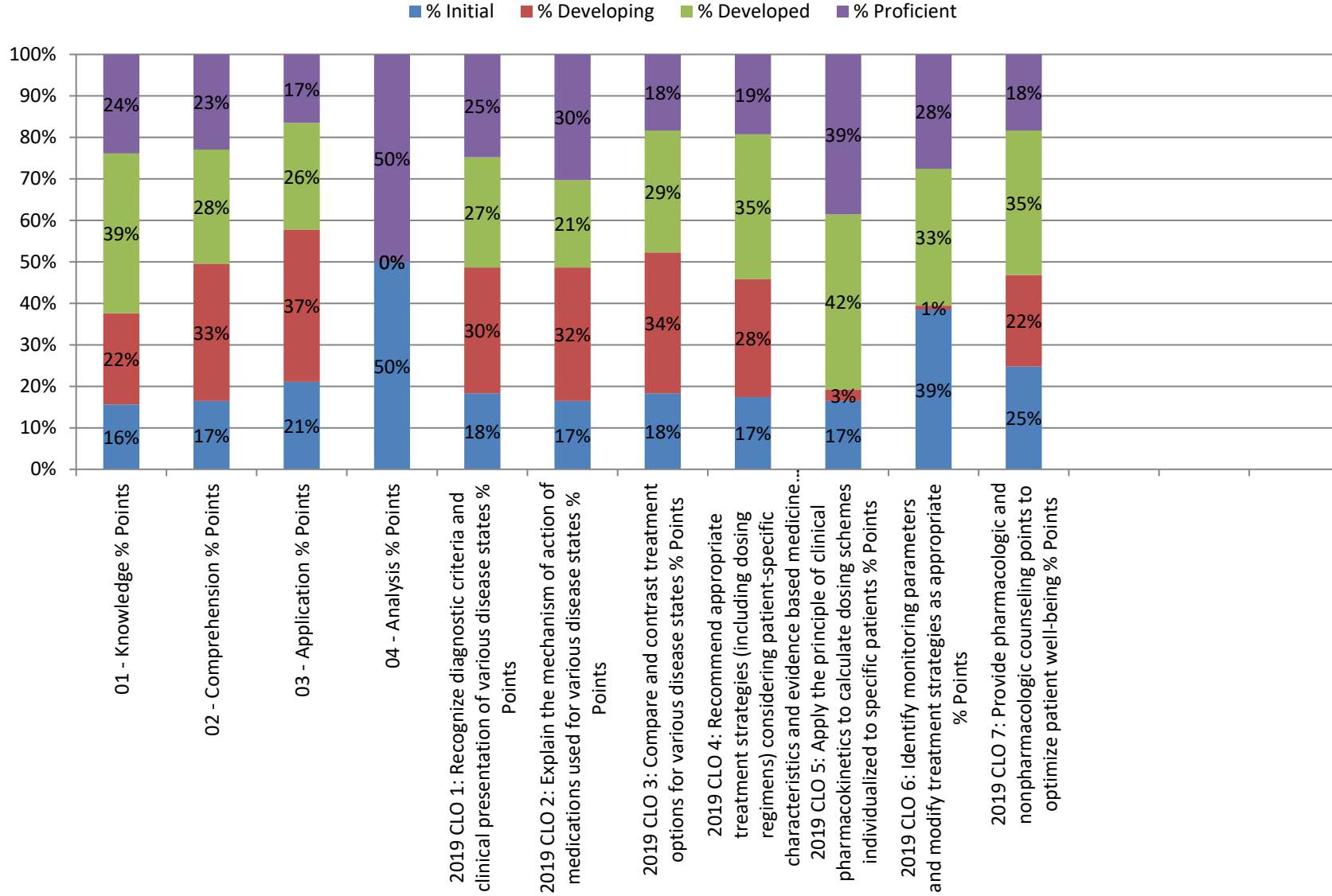
Number of Questions Assessing the Outcome



Mean Score by Category (with error bars representing standard deviation)



Proficiency Level Distribution by Category

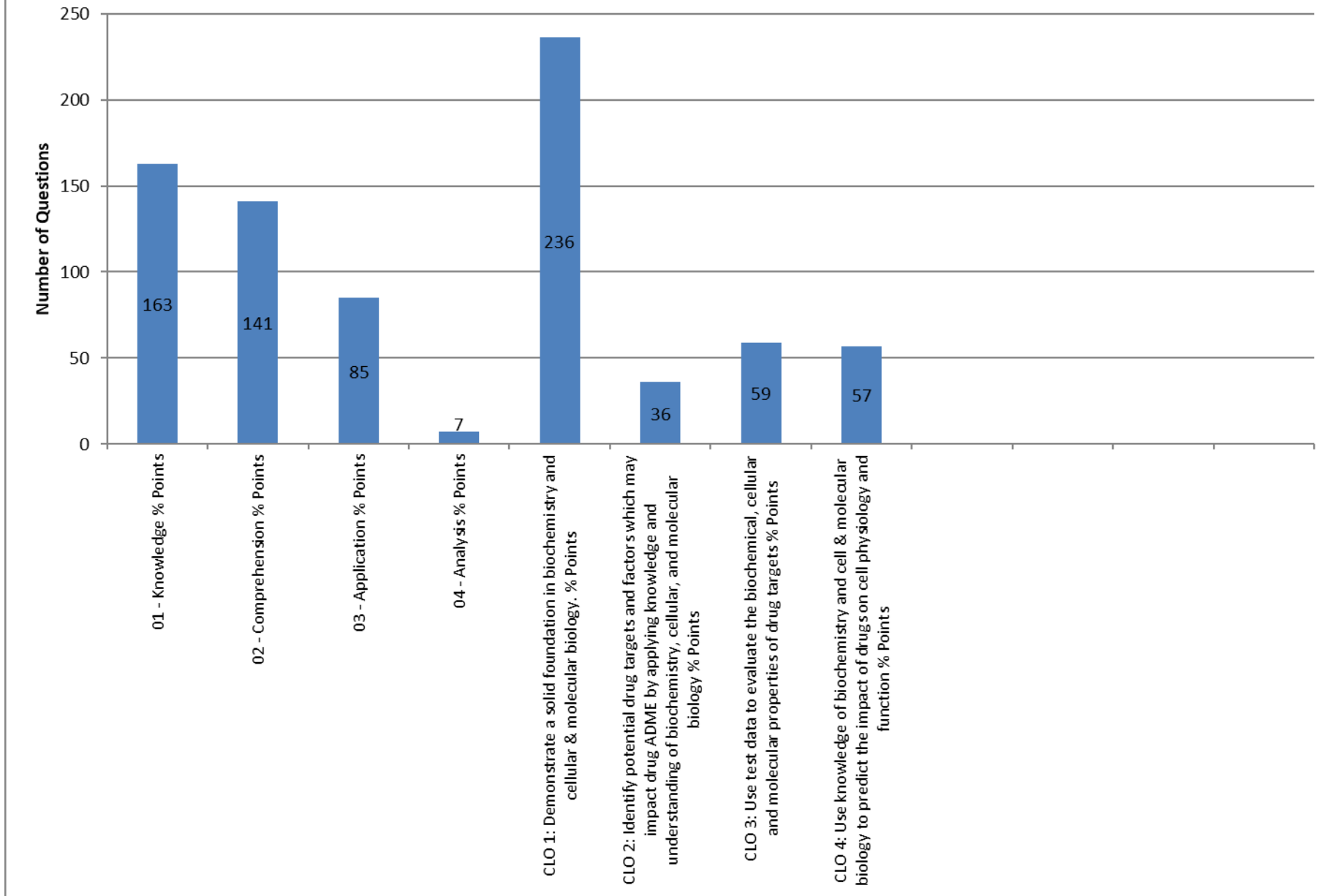


PBS: 601- Cell and Molecular Biology & Biochemistry CLO Report

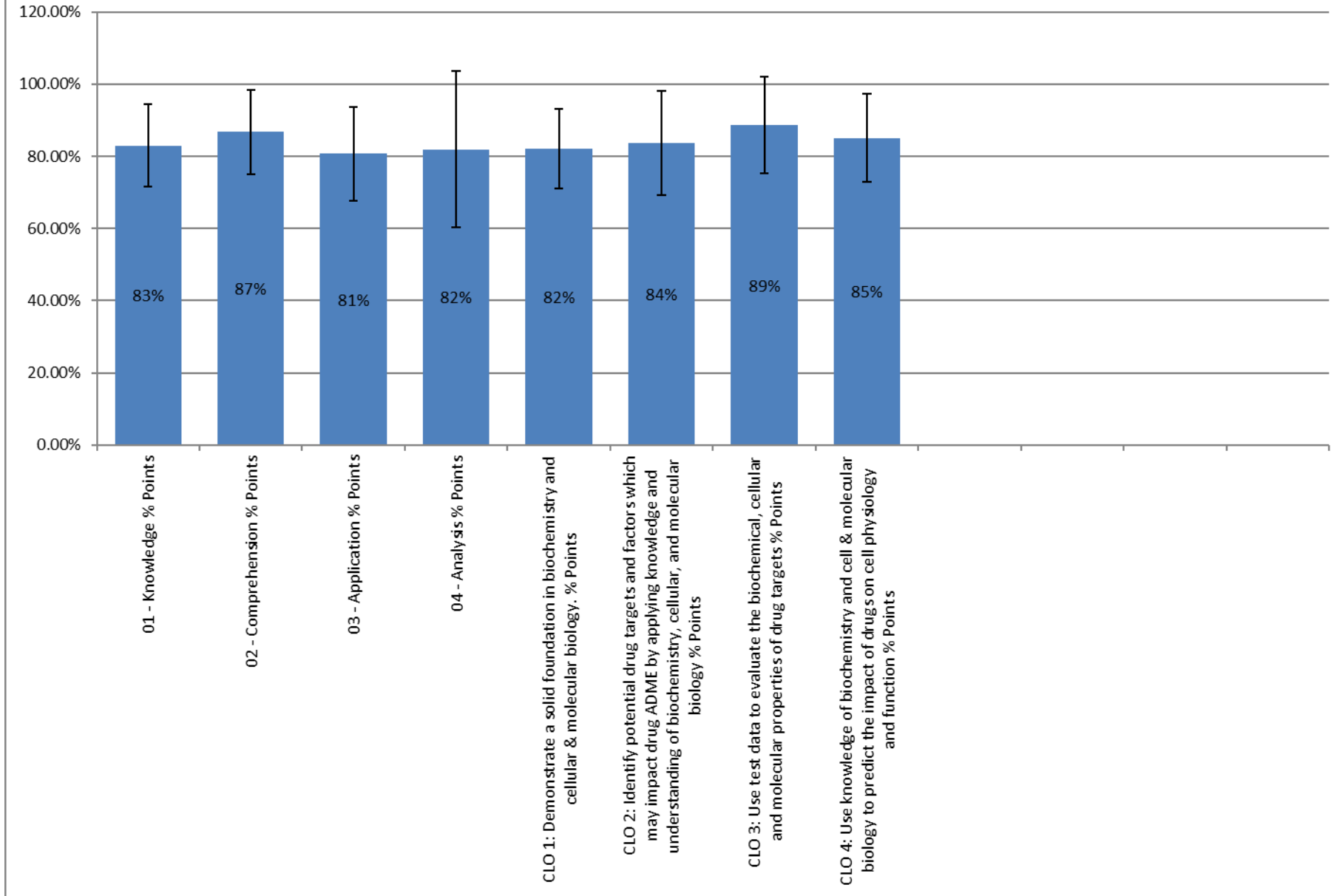
General Assessment: In terms of the level of complexity the type of questions are well balanced and even includes a few high level analysis type questions which are generally very difficult to write for an exam type setting. Most of the questions were focused on CLO 1, and much less on CLO 2, though all CLOs were sufficiently assessed. Student performance for the questions corresponding to the four CLOs was fairly similar.

Name	01 - Knowledge % Points	02 - Comprehension % Points	03 - Application % Points	04 - Analysis % Points	CLO 1: Demonstrate a solid foundation in biochemistry and cellular & molecular biology. % Points	CLO 2: Identify potential drug targets and factors which may impact drug ADME by applying knowledge and understanding of biochemistry, cellular, and molecular biology % Points	CLO 3: Use test data to evaluate the biochemical, cellular and molecular properties of drug targets % Points	CLO 4: Use knowledge of biochemistry and cell & molecular biology to predict the impact of drugs on cell physiology and function % Points
# Assessments	9	9	9	8	9	8	9	9
# Items	163	141	85	7	236	36	59	57
MEAN	82.96%	86.75%	80.66%	81.89%	82.08%	83.68%	88.58%	85.09%
Standard Deviation	11.47%	11.71%	13.09%	21.62%	11.10%	14.37%	13.36%	12.24%
MEDIAN	85.47%	87.87%	82.69%	86.67%	84.25%	86.36%	88.17%	86.53%
MIN	57.58%	59.26%	41.67%	0.00%	57.45%	54.84%	50.00%	33.33%
MAX	100.00%	105.28%	101.92%	100.00%	98.71%	104.55%	108.52%	102.04%
25th Percentile	73.95%	76.29%	71.65%	73.33%	74.78%	73.10%	80.82%	79.68%
75th Percentile	93.33%	96.76%	90.38%	100.00%	91.09%	95.45%	100.00%	95.58%

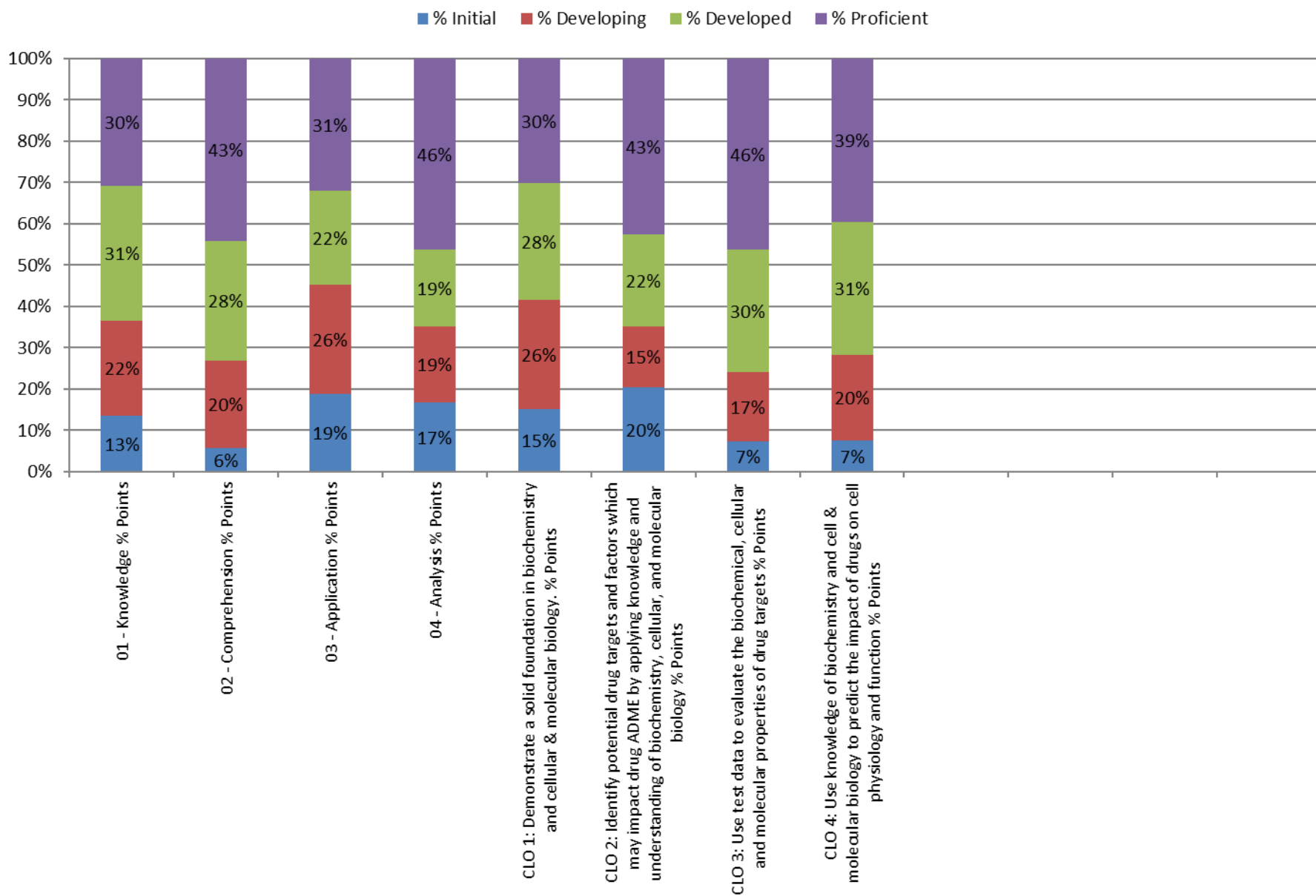
Number of Questions Assessing the Outcome



Mean Score by Category
 (with error bars representing standard deviation)



Proficiency Level Distribution by Category

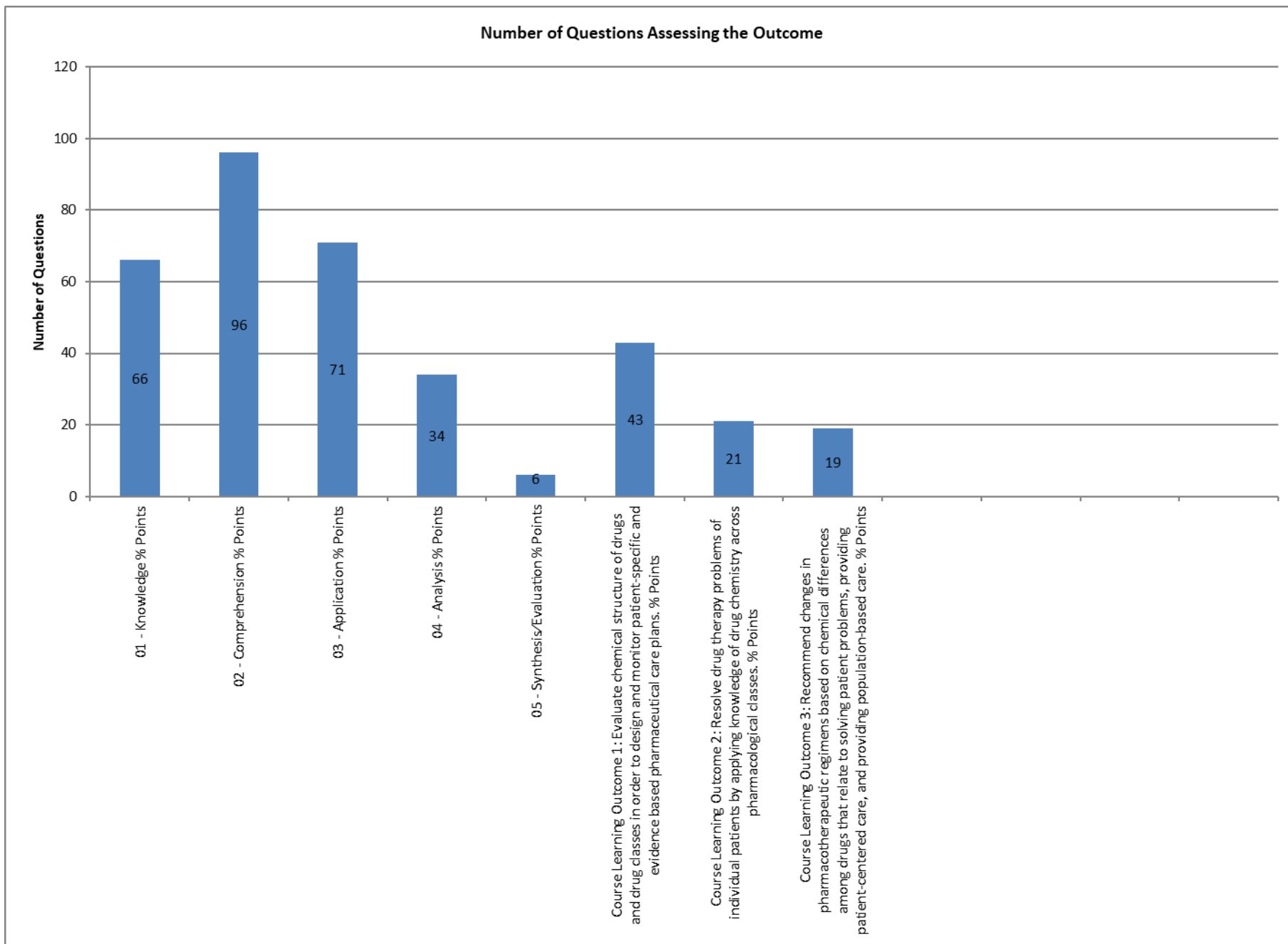


PBS 603- Medicinal Chemistry & Physical Pharmacy CLO Report General Assessment

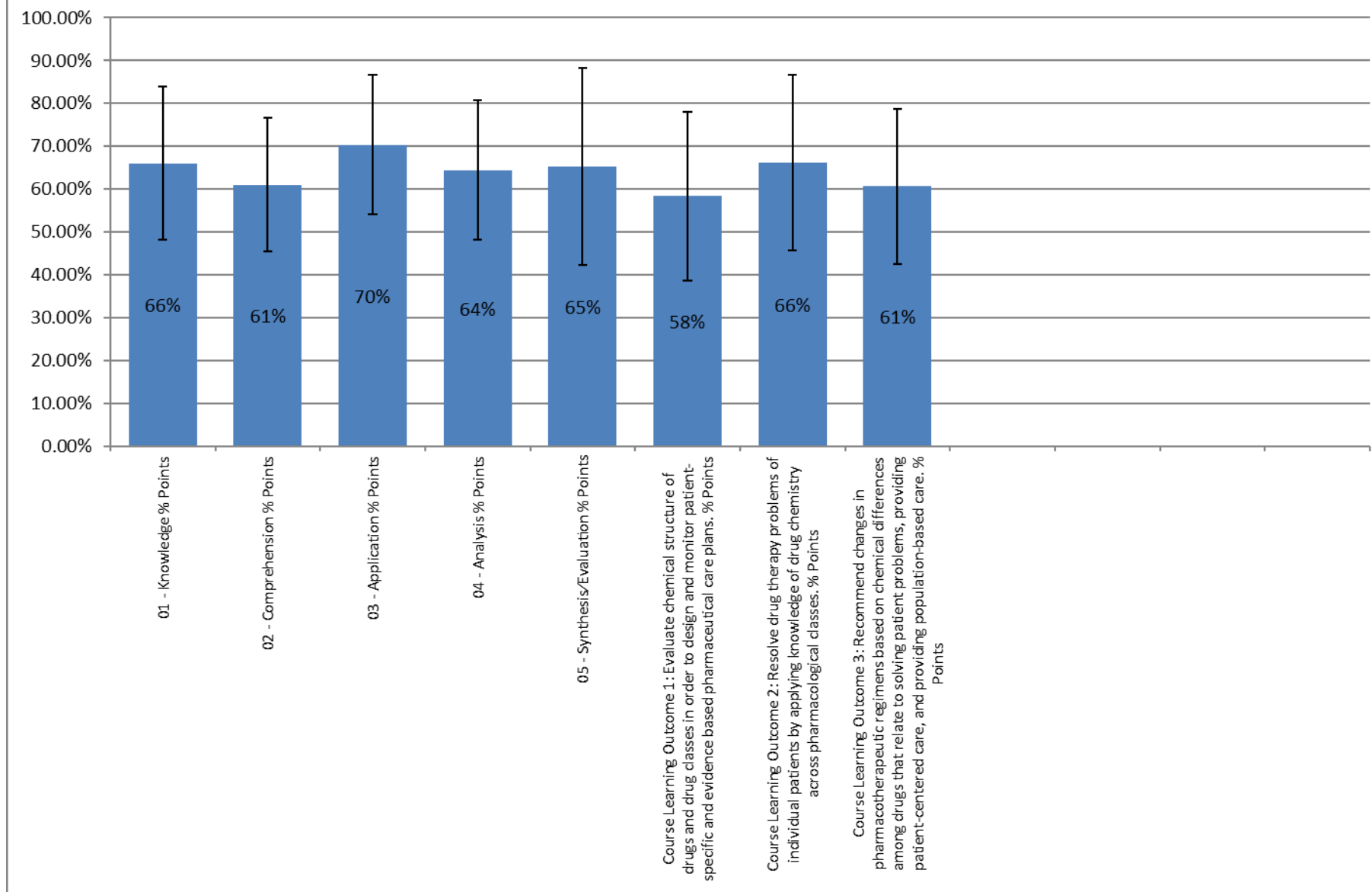
General Assessment: The complexity of questions is well distributed and even included analysis and synthesis type questions which are generally very difficult to develop for an exam-type setting. Likewise, the distribution of questions corresponding to the three CLOs is balanced. Student performance on the questions based on the three CLOs are fairly similar.

Name	01 - Knowledge % Points	02 - Comprehension % Points	03 - Application % Points	04 - Analysis % Points	05 - Synthesis/Evaluation % Points	Course Learning Outcome 1: Evaluate chemical structure of drugs and drug classes in order to design and monitor patient-specific and evidence based pharmaceutical care plans. % Points	Course Learning Outcome 2: Resolve drug therapy problems of individual patients by applying knowledge of drug chemistry across pharmacological classes. % Points	Course Learning Outcome 3: Recommend changes in pharmacotherapeutic regimens based on chemical differences among drugs that relate to solving patient problems, providing patient-centered care, and providing population-based care. % Points
# Assessments	5	5	5	5	2	5	5	4
# Items	66	96	71	34	6	43	21	19
MEAN	66.06%	61.04%	70.38%	64.40%	65.22%	58.34%	66.18%	60.69%
Standard Deviation	17.92%	15.53%	16.34%	16.24%	22.97%	19.70%	20.56%	18.07%
MEDIAN	65.91%	60.45%	73.24%	64.71%	66.67%	53.67%	64.29%	58.36%
MIN	30.30%	34.38%	35.21%	23.53%	0.00%	19.05%	28.57%	26.32%
MAX	95.45%	91.67%	98.59%	94.12%	100.00%	93.02%	100.00%	94.74%
25th Percentile	55.68%	51.04%	59.21%	54.91%	50.00%	48.54%	52.38%	47.37%
75th Percentile	80.68%	70.91%	84.51%	76.47%	83.33%	75.00%	85.71%	78.95%

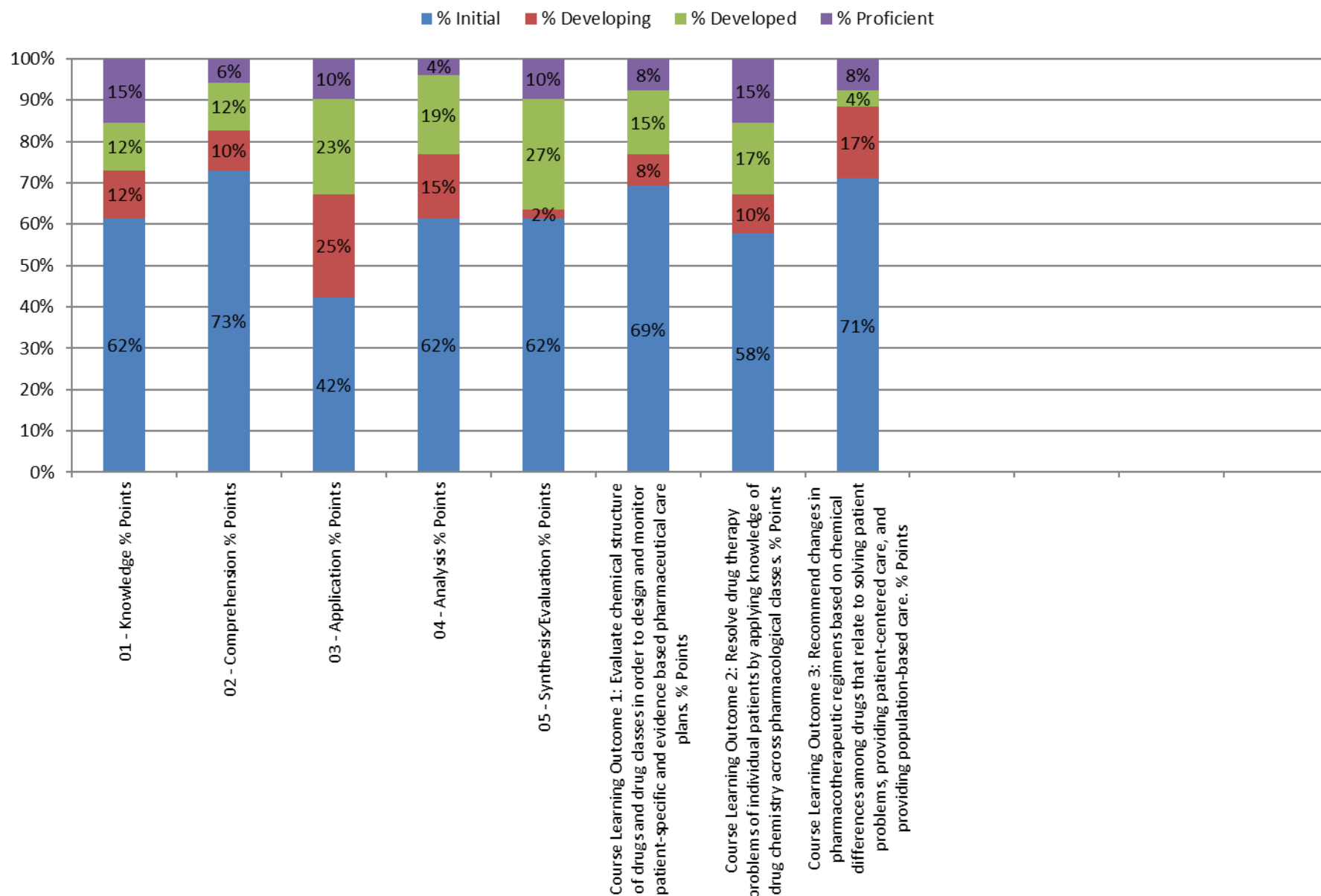
Number of Questions Assessing the Outcome



Mean Score by Category (with error bars representing standard deviation)



Proficiency Level Distribution by Category

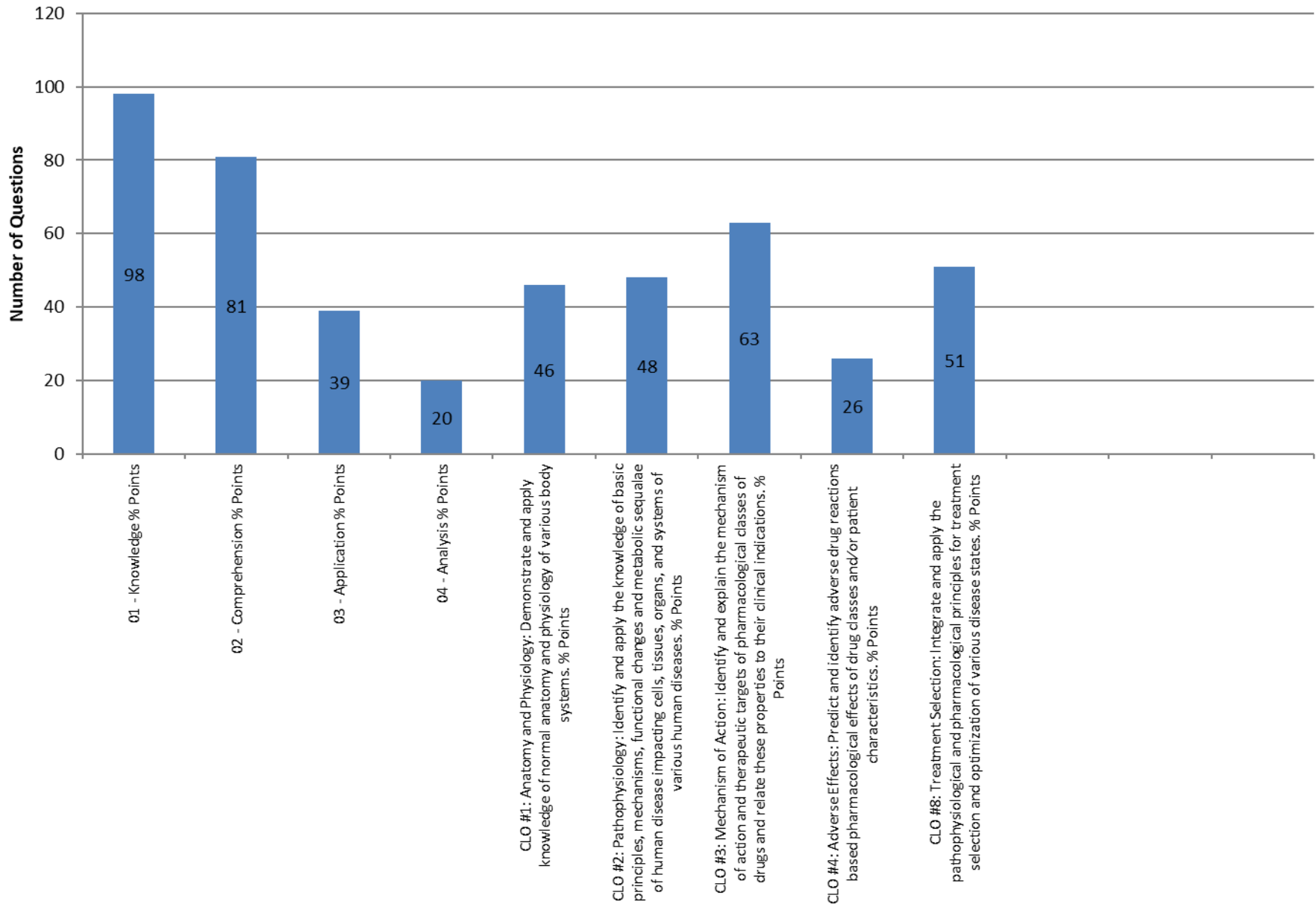


PBS 701 Pathophysiology & Pharmacology II CLO Report

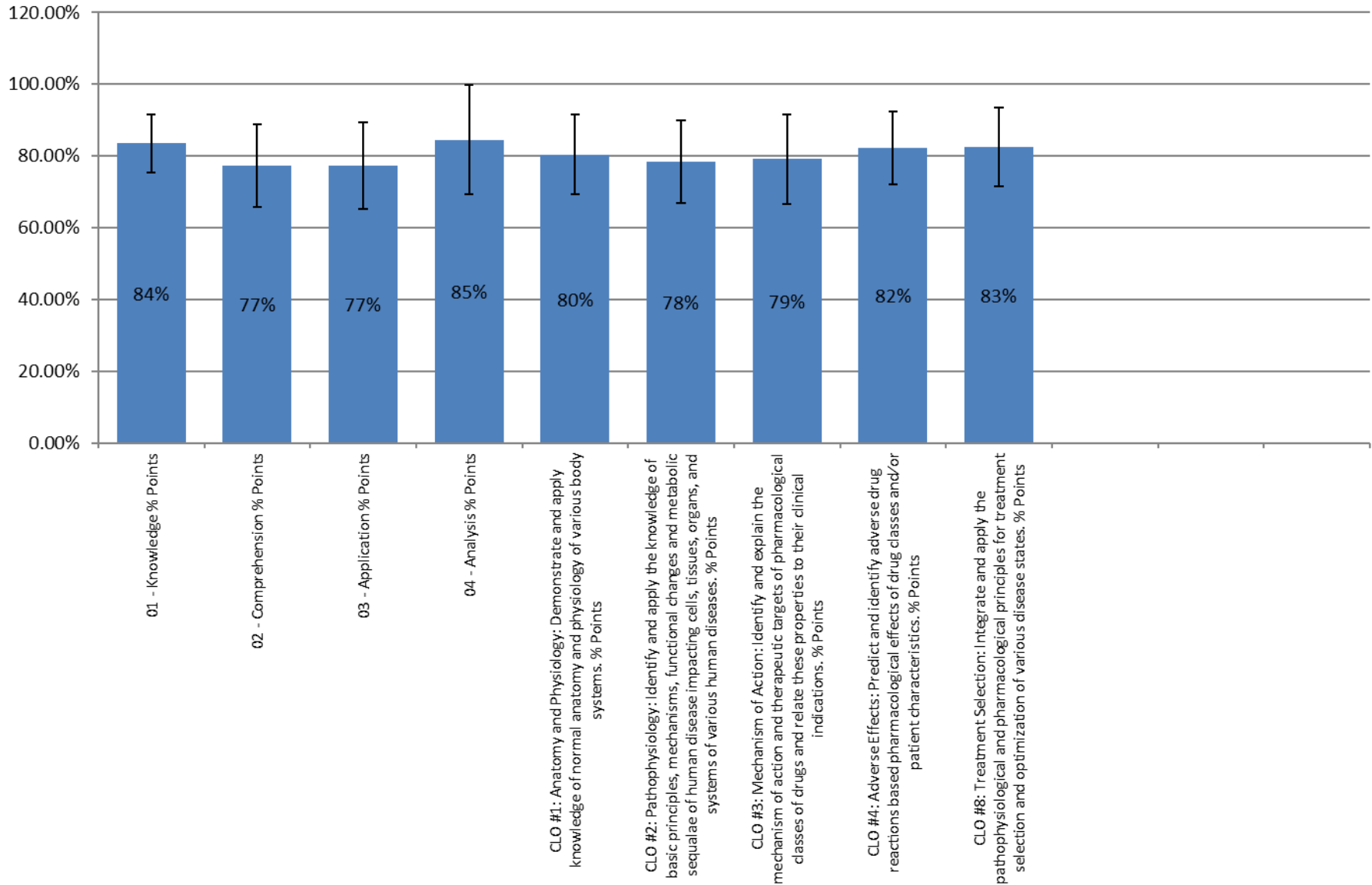
General Assessment: The complexity of questions is well distributed and even included analysis type questions that are difficult to write for an exam type setting. Likewise, the distribution of questions corresponding to the five CLOs is balanced. Student performance on the questions based on the three CLOs are fairly similar. However, it appears that none of the questions were tagged to CLO 5-7. These CLOs may simply not be a part of the course, or may be they were not evaluated, in which case some form of summative assessment should be developed.

Name	01 - Knowledge % Points	02 - Comprehension % Points	03 - Application % Points	04 - Analysis % Points	CLO #1: Anatomy and Physiology: Demonstrate and apply knowledge of normal anatomy and physiology of various body systems. % Points	CLO #2: Pathophysiology: Identify and apply the knowledge of basic principles, mechanisms, functional changes and metabolic sequelae of human disease impacting cells, tissues, organs, and systems of various human diseases. % Points	CLO #3: Mechanism of Action: Identify and explain the mechanism of action and therapeutic targets of pharmacological classes of drugs and relate these properties to their clinical indications. % Points	CLO #4: Adverse Effects: Predict and identify adverse drug reactions based pharmacological effects of drug classes and/or patient characteristics. % Points	CLO #8: Treatment Selection: Integrate and apply the pathophysiological and pharmacological principles for treatment selection and optimization of various disease states. % Points
# Assessments	5	5	5	5	5	5	5	5	5
# Items	98	81	39	20	46	48	63	26	51
MEAN	83.51%	77.30%	77.37%	84.56%	80.40%	78.36%	79.10%	82.34%	82.57%
Standard Deviation	7.99%	11.59%	12.13%	15.31%	11.07%	11.48%	12.48%	10.11%	11.03%
MEDIAN	84.17%	75.86%	76.67%	85.71%	79.73%	78.34%	79.19%	81.25%	81.82%
MIN	66.67%	53.16%	44.44%	50.00%	56.52%	52.17%	55.08%	56.25%	52.08%
MAX	100.00%	98.28%	103.50%	114.29%	97.30%	100.00%	102.44%	100.00%	103.03%
25th Percentile	77.86%	70.52%	69.90%	72.02%	70.27%	70.00%	67.44%	75.00%	78.79%
75th Percentile	88.75%	86.21%	86.83%	92.86%	89.87%	86.67%	88.49%	89.44%	90.91%

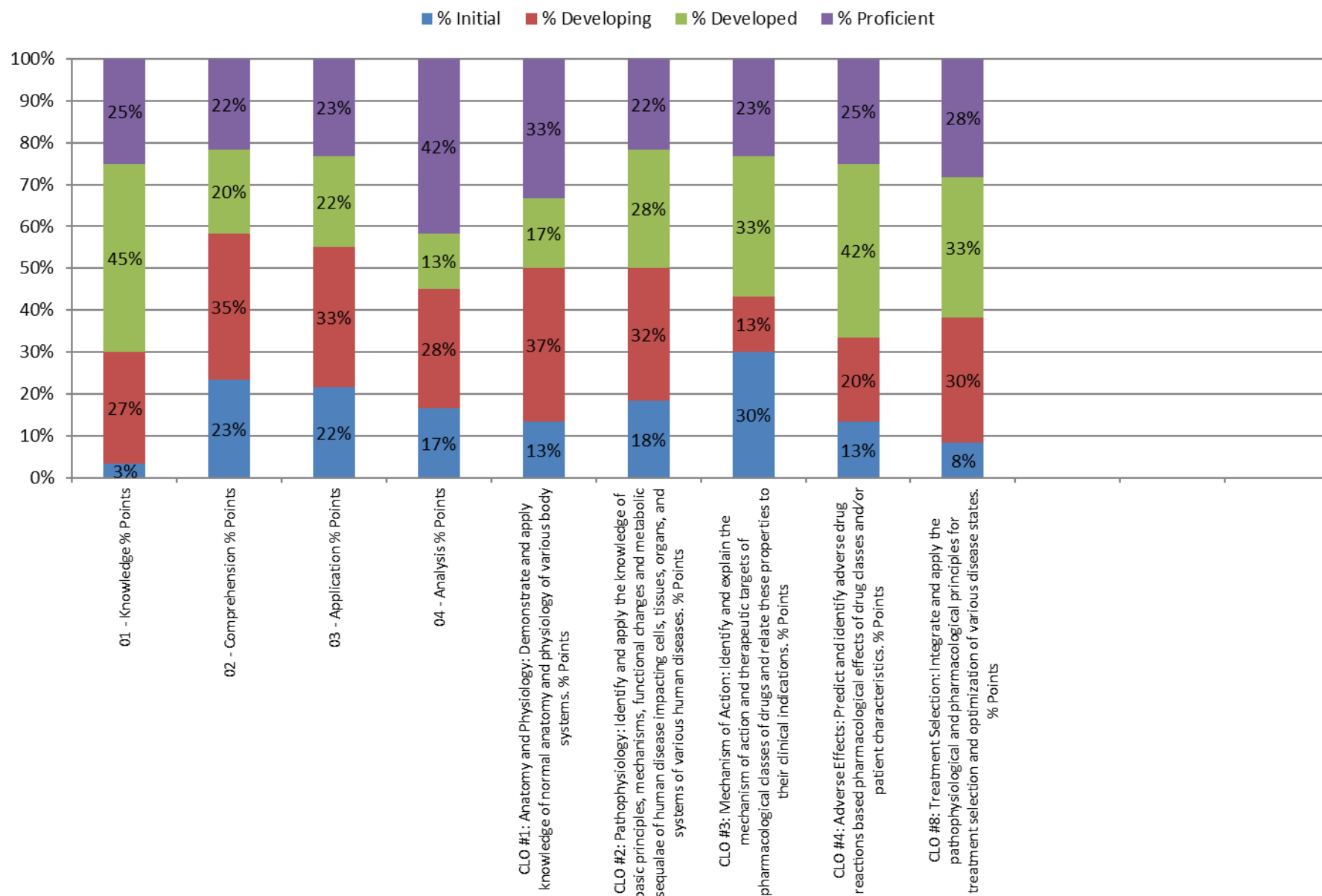
Number of Questions Assessing the Outcome



Mean Score by Category (with error bars representing standard deviation)



Proficiency Level Distribution by Category

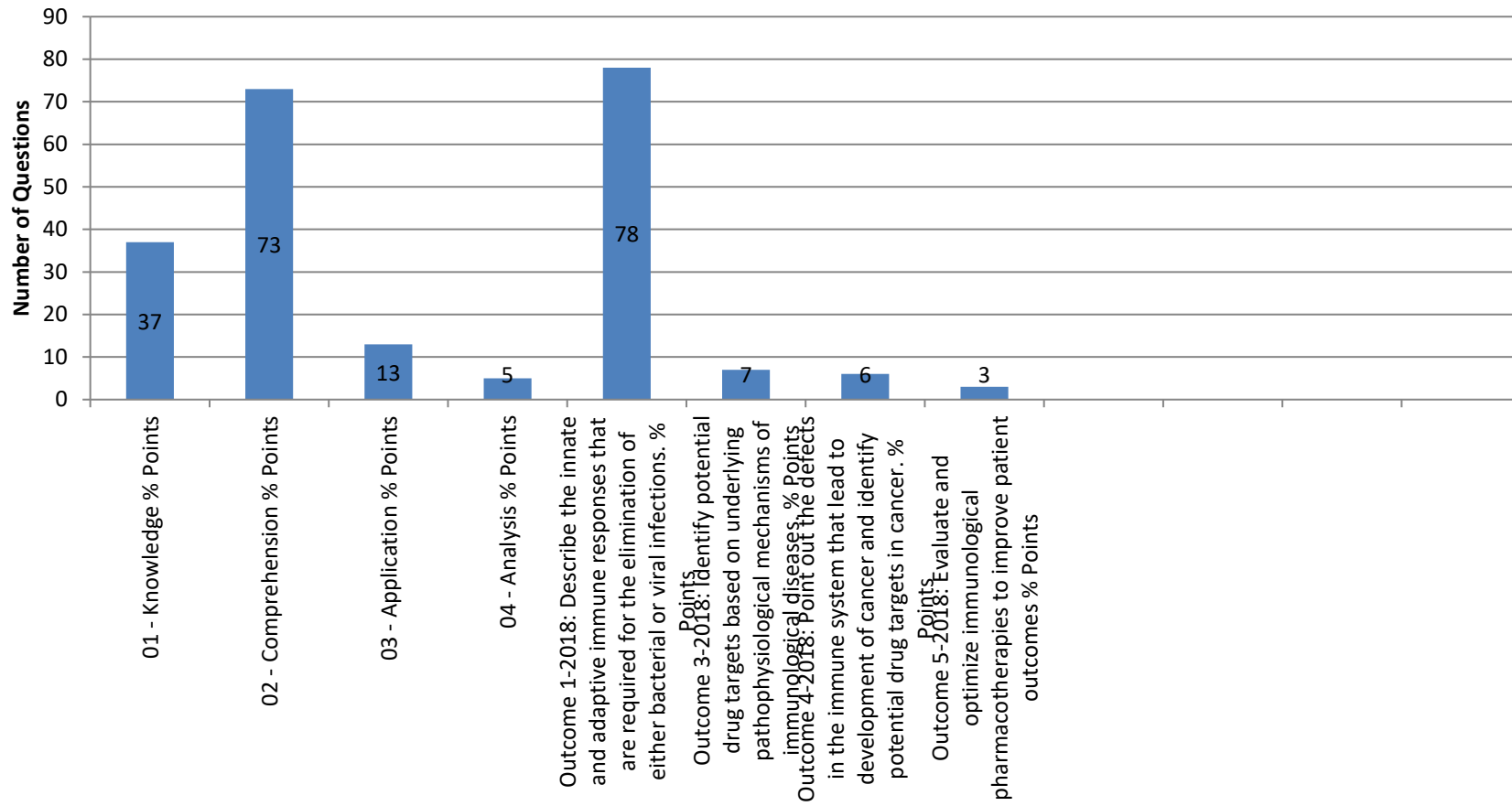


PBS 803 Immunology & Rheumatology CLO Report

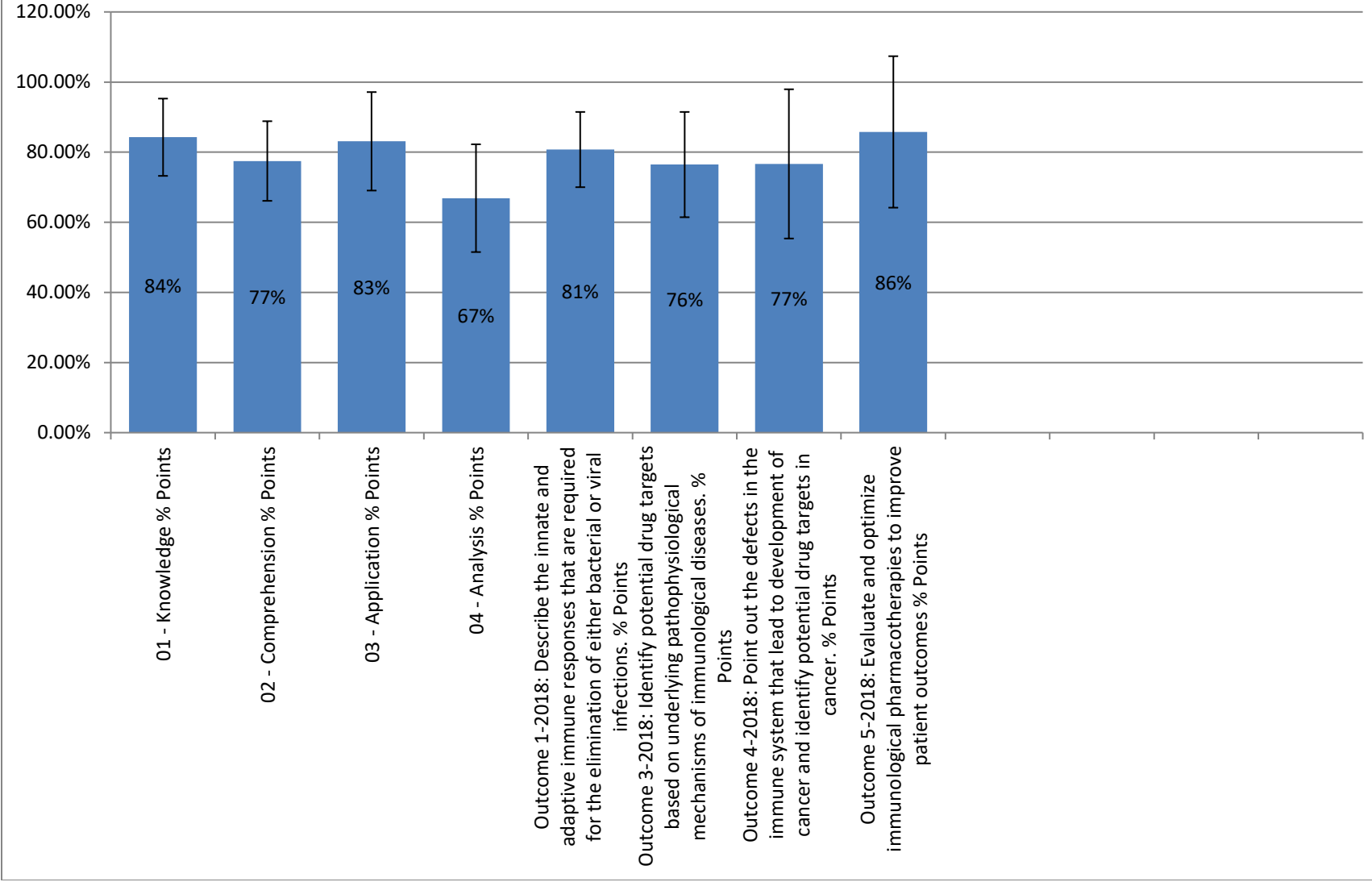
General Assessment: The complexity of questions is generally well balanced, even includes a few analysis type questions, which are difficult to develop for an exam type format. Most of the questions focused CLO1 and very few questions assessed CLO 2-4. This may be an issue with tagging or may be these CLOs are assessed in a different manner other than summative examination. Please ensure that some summative assessment is conducted to evaluate student proficiency for these CLOs. No major difference in terms of student performance was identified.

Name	01 - Knowledge % Points	02 - Comprehension % Points	03 - Application % Points	04 - Analysis % Points	Outcome 1-2018: Describe the innate and adaptive immune responses that are required for the elimination of either bacterial or viral infections. % Points	Outcome 3-2018: Identify potential drug targets based on underlying pathophysiological mechanisms of immunological diseases. % Points	Outcome 4-2018: Point out the defects in the immune system that lead to development of cancer and identify potential drug targets in cancer. % Points	Outcome 5-2018: Evaluate and optimize immunological pharmacotherapies to improve patient outcomes % Points
# Assessments	6	6	3	4	6	3	3	2
# Items	37	73	13	5	78	7	6	3
MEAN	84.26%	77.48%	83.10%	66.88%	80.74%	76.46%	76.66%	85.77%
Standard Deviation	11.02%	11.36%	14.04%	15.36%	10.73%	15.02%	21.28%	21.60%
MEDIAN	87.20%	80.80%	84.62%	71.43%	83.11%	82.86%	81.82%	100.00%
MIN	45.00%	31.25%	37.50%	28.57%	48.00%	28.57%	0.00%	33.33%
MAX	100.00%	96.80%	100.00%	100.00%	98.65%	100.00%	100.00%	100.00%
25th Percentile	78.12%	70.85%	76.92%	57.14%	75.34%	71.43%	63.64%	66.67%
75th Percentile	92.19%	84.80%	92.31%	71.43%	88.51%	85.71%	100.00%	100.00%

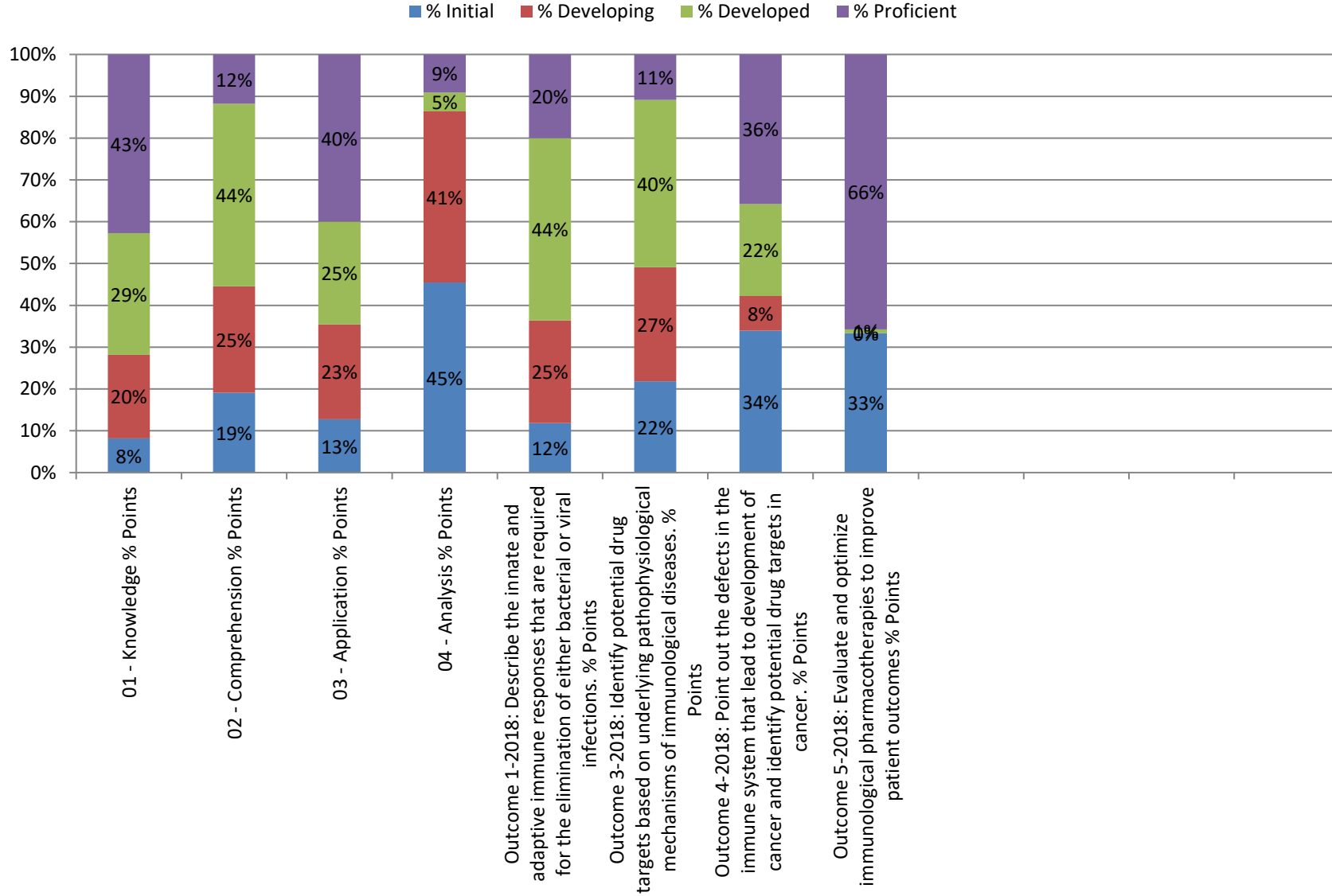
Number of Questions Assessing the Outcome



Mean Score by Category (with error bars representing standard deviation)



Proficiency Level Distribution by Category



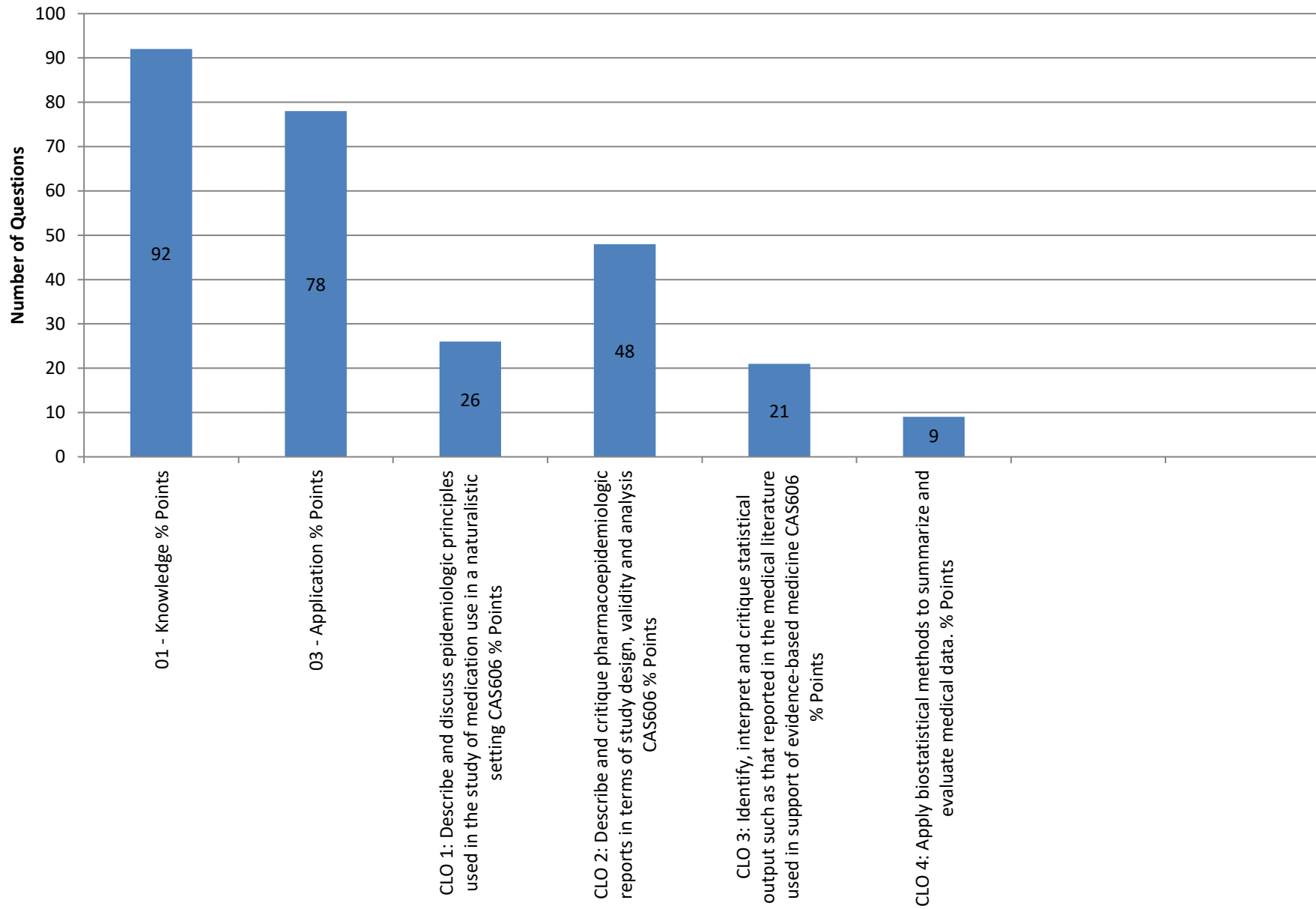
B. Spring 2023 CLO Reports

CAS 606: Biostatistics and Pharmacoepidemiology CLO Report

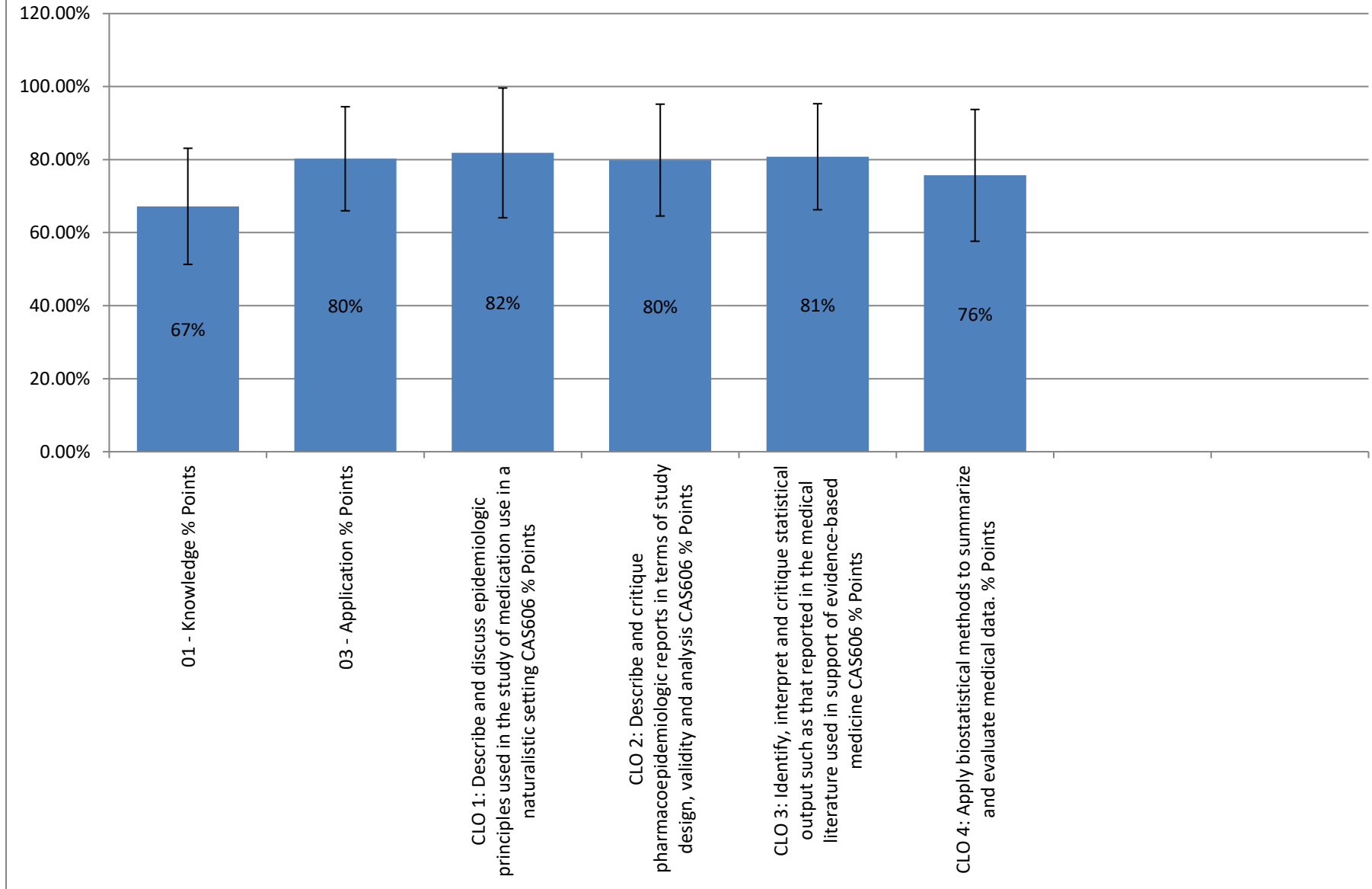
Brief Analysis: The distribution of questions based on Blooms Taxonomy is quite unique since nearly all questions are application type questions. It appears that only one question corresponds to CLO 4 and none assess CLO 1. I suggest verifying if this is intentional. If so, ensure that CLO 1 and 4 are assessed in other summative forms of evaluation. I did not identify any other trends or outliers in the results.

Name	Knowledge	Application	CLO 1: Describe and discuss epidemiologic principles used in the study of medication use in a naturalistic setting	CLO 2: Describe and critique pharmacoepidemiologic reports in terms of study design, validity and analysis	CLO 3: Identify, interpret and critique statistical output such as that reported in the medical literature used in support of evidence-based medicine	CLO 4: Apply biostatistical methods to summarize and evaluate medical data.
Items	92	78	26	48	21	9
MEAN	67.20%	80.23%	81.85%	79.86%	80.78%	75.68%
Standard Deviation	15.91%	14.25%	17.77%	15.32%	14.52%	18.05%
MEDIAN	65.85%	82.38%	86.84%	81.55%	82.61%	81.25%
MIN	34.15%	38.61%	39.47%	34.52%	52.17%	6.25%
MAX	97.56%	105.41%	110.53%	104.76%	113.04%	100.00%
25th Percentile	56.10%	70.81%	71.71%	69.45%	69.94%	62.50%
75th Percentile	79.88%	89.71%	92.47%	92.74%	90.76%	87.50%
Initial: <69%	40	17	18	17	17	25
% Initial	54.05%	22.97%	24.32%	22.97%	22.97%	34.25%
Developing or better : at or above 69%	34	56	56	55	55	48
Developing only: 69%-79.999%	45.95%	75.68%	75.68%	74.32%	74.32%	65.75%
% Developing	15	15	8	15	16	11
Developed or better: at or above 79%	20.27%	20.27%	10.81%	20.27%	21.62%	15.07%
% Developed or better	19	41	48	40	39	37
Developed only: 79%-89.999%	25.68%	55.41%	64.86%	54.05%	52.70%	50.68%
% Developed	13	23	28	16	20	26
Proficient: at or above 89%	17.57%	31.08%	37.84%	21.62%	27.03%	35.62%
% Proficient	6	18	20	24	19	11
Total number of students	8.11%	24.32%	27.03%	32.43%	25.68%	15.07%

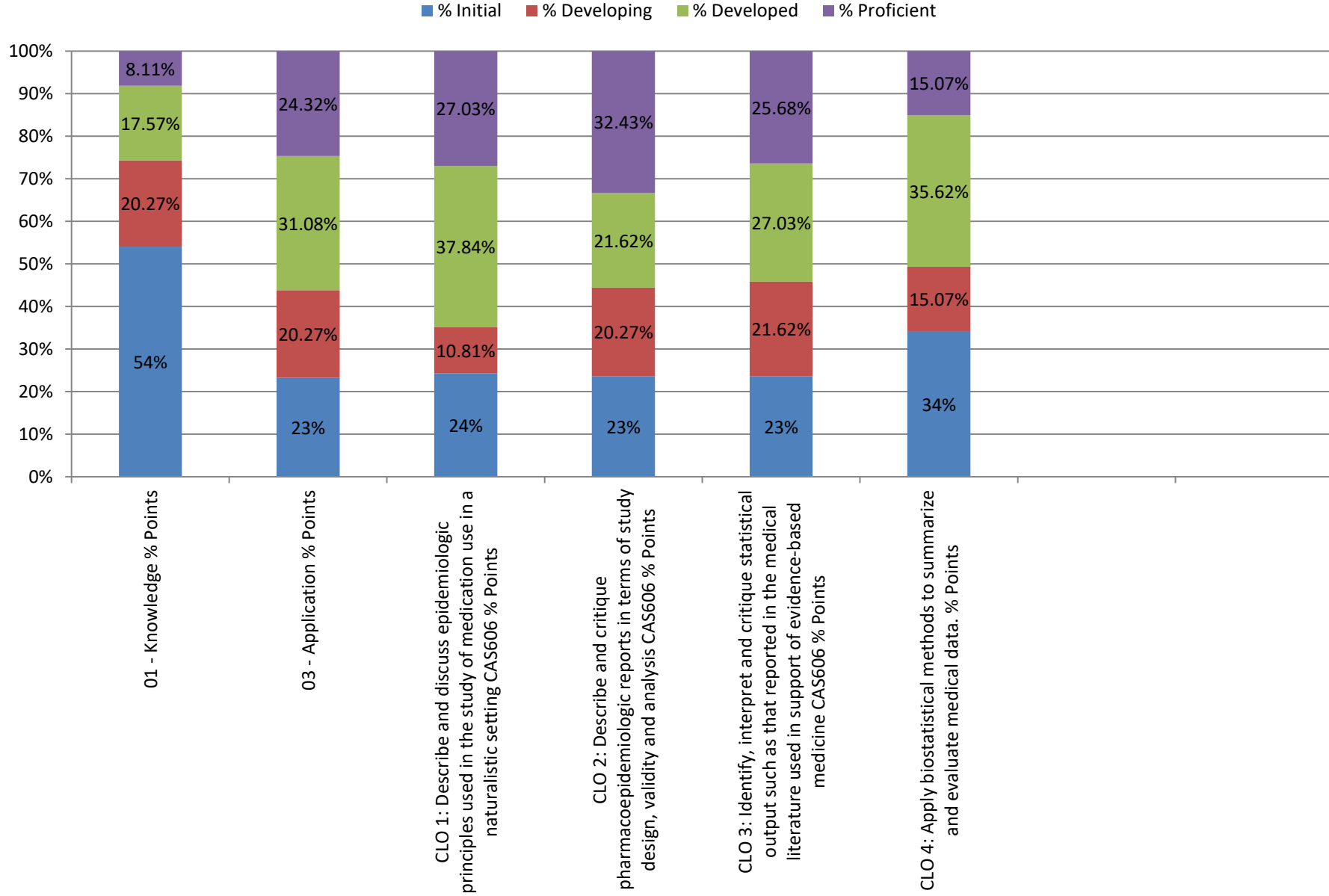
Number of Questions Assessing the Outcome



Mean Score by Category (with error bars representing standard deviation)



Proficiency Level Distribution by Category

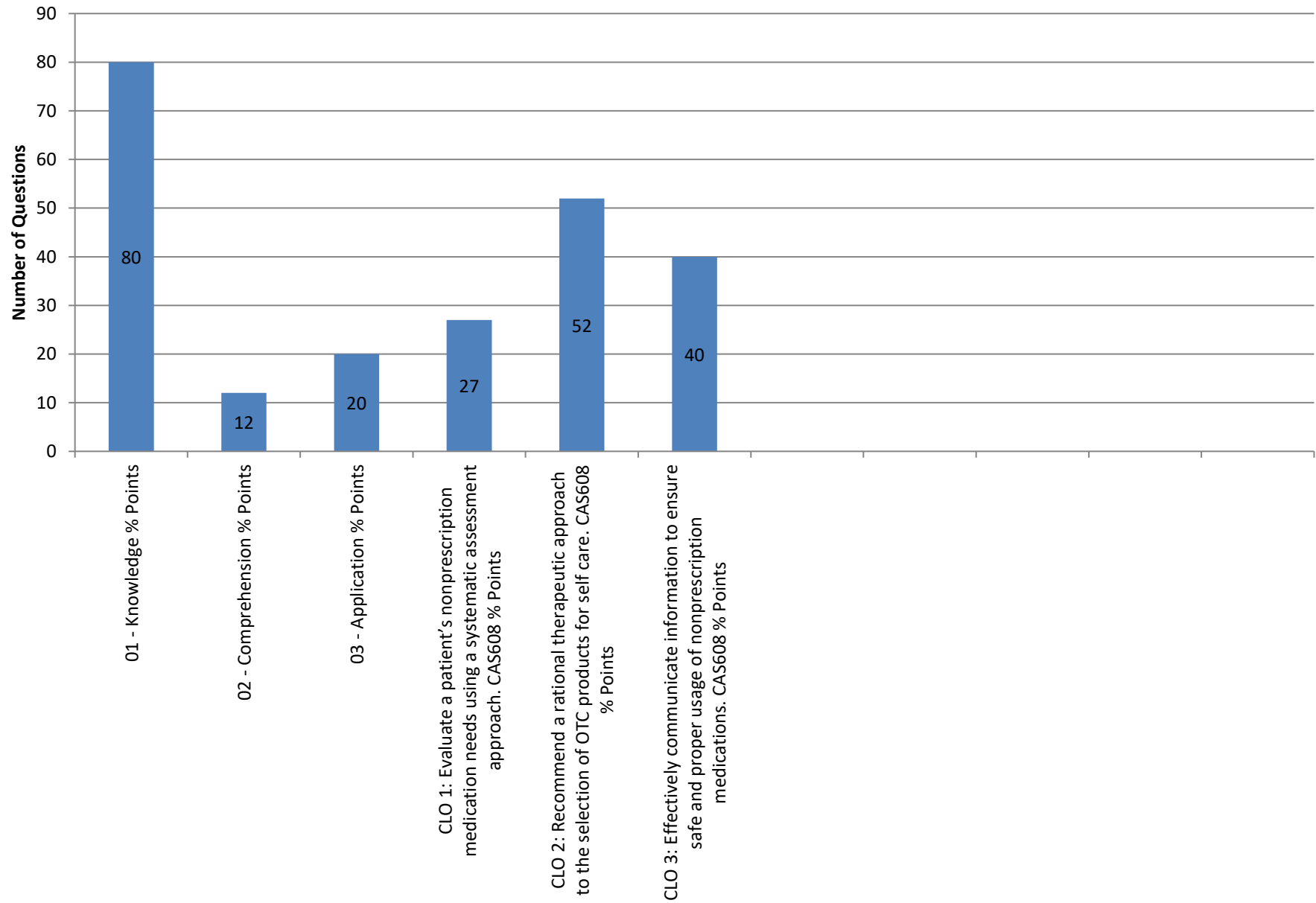


CAS 608 CLO Report

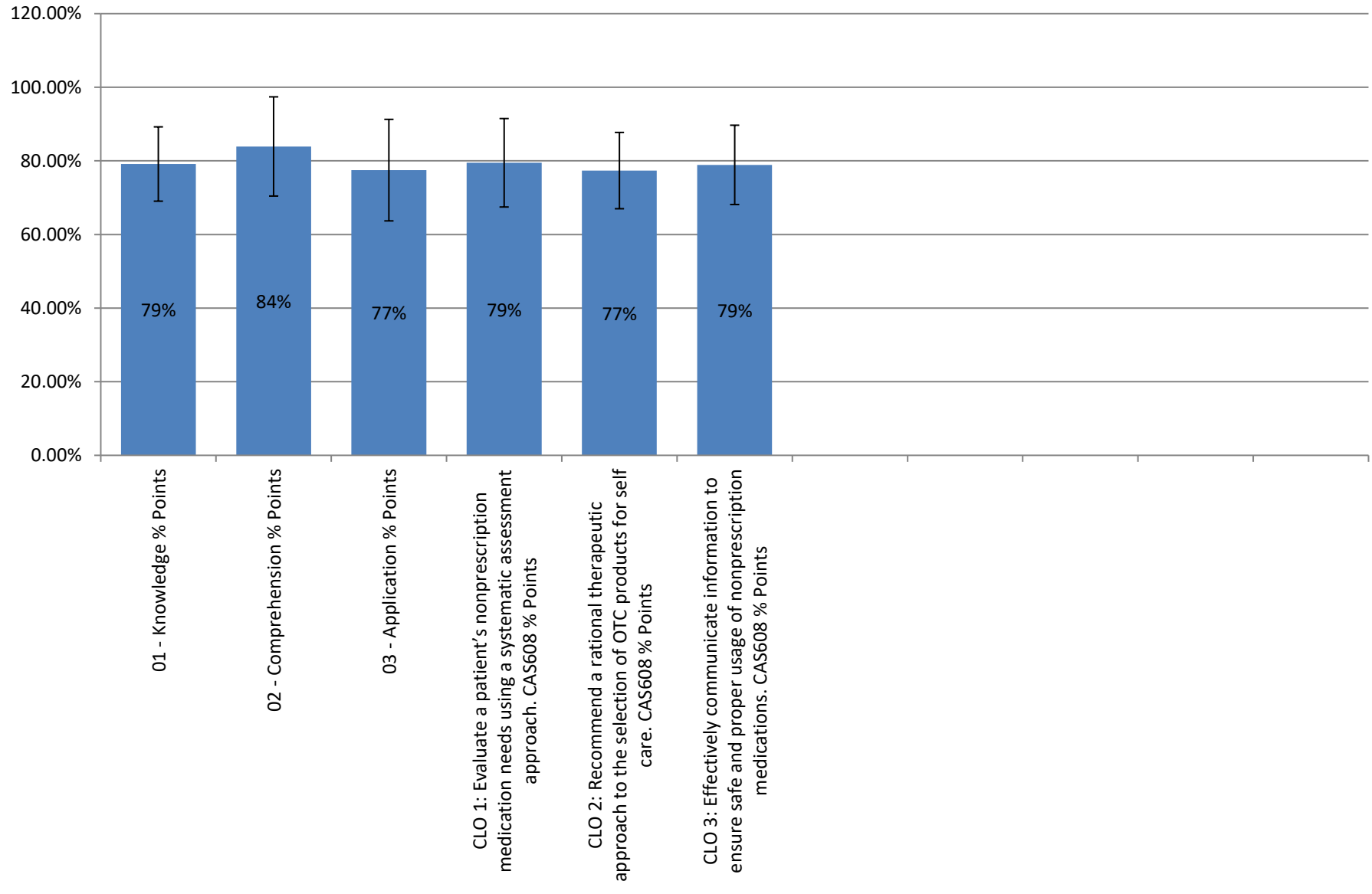
Brief Analysis: The distribution of questions based on CLOs is well distributed between the three CLOs. The large majority of questions were knowledge based. Student performance was fairly similar between all three CLO. Likewise student performance on questions was similar even as the complexity of the questions increased.

StudentID	Name	01 - Knowledge % Points	02 - Comprehension % Points	03 - Application % Points	CLO 1: Evaluate a patient's nonprescription medication needs using a systematic assessment approach. CAS608 % Points	CLO 2: Recommend a rational therapeutic approach to the selection of OTC products for self care. CAS608 % Points	CLO 3: Effectively communicate information to ensure safe and proper usage of nonprescription medications. CAS608 % Points
# Assessments		7	3	6	5	6	5
# Items		80	12	20	27	52	40
MEAN	79.14%	83.91%	77.48%	79.48%	77.36%	78.92%	79.14%
Standard Deviation	10.09%	13.48%	13.79%	12.02%	10.36%	10.77%	10.09%
MEDIAN	77.78%	87.50%	76.47%	81.82%	76.19%	80.06%	77.78%
MIN	53.03%	50.00%	44.12%	46.43%	47.34%	48.08%	53.03%
MAX	98.55%	100.00%	105.88%	100.00%	97.62%	97.37%	98.55%
25th Percentile	74.64%	75.00%	70.59%	72.73%	71.43%	73.68%	74.64%
75th Percentile	86.96%	100.00%	88.24%	86.36%	85.71%	86.84%	86.96%
Initial: <69%	6	8	10	10	7	7	6
% Initial	11.32%	15.09%	18.87%	18.87%	13.21%	13.21%	11.32%
Developing or better : at or above 69%	47	45	43	43	42	42	47
% Developing or better	88.68%	84.91%	81.13%	81.13%	79.25%	79.25%	88.68%
Developing only: 69%-79.999%	25	12	23	14	22	15	25
% Developing	47.17%	22.64%	43.40%	26.42%	41.51%	28.30%	47.17%
Developed or better: at or above 79%	22	33	20	29	20	27	22
% Developed or better	41.51%	62.26%	37.74%	54.72%	37.74%	50.94%	41.51%
Developed only: 79%-89.999%	15	19	9	17	12	22	15
% Developed	28.30%	35.85%	16.98%	32.08%	22.64%	41.51%	28.30%
Proficient: at or above 89%	7	14	11	12	8	5	7
% Proficient	13.21%	26.42%	20.75%	22.64%	15.09%	9.43%	13.21%

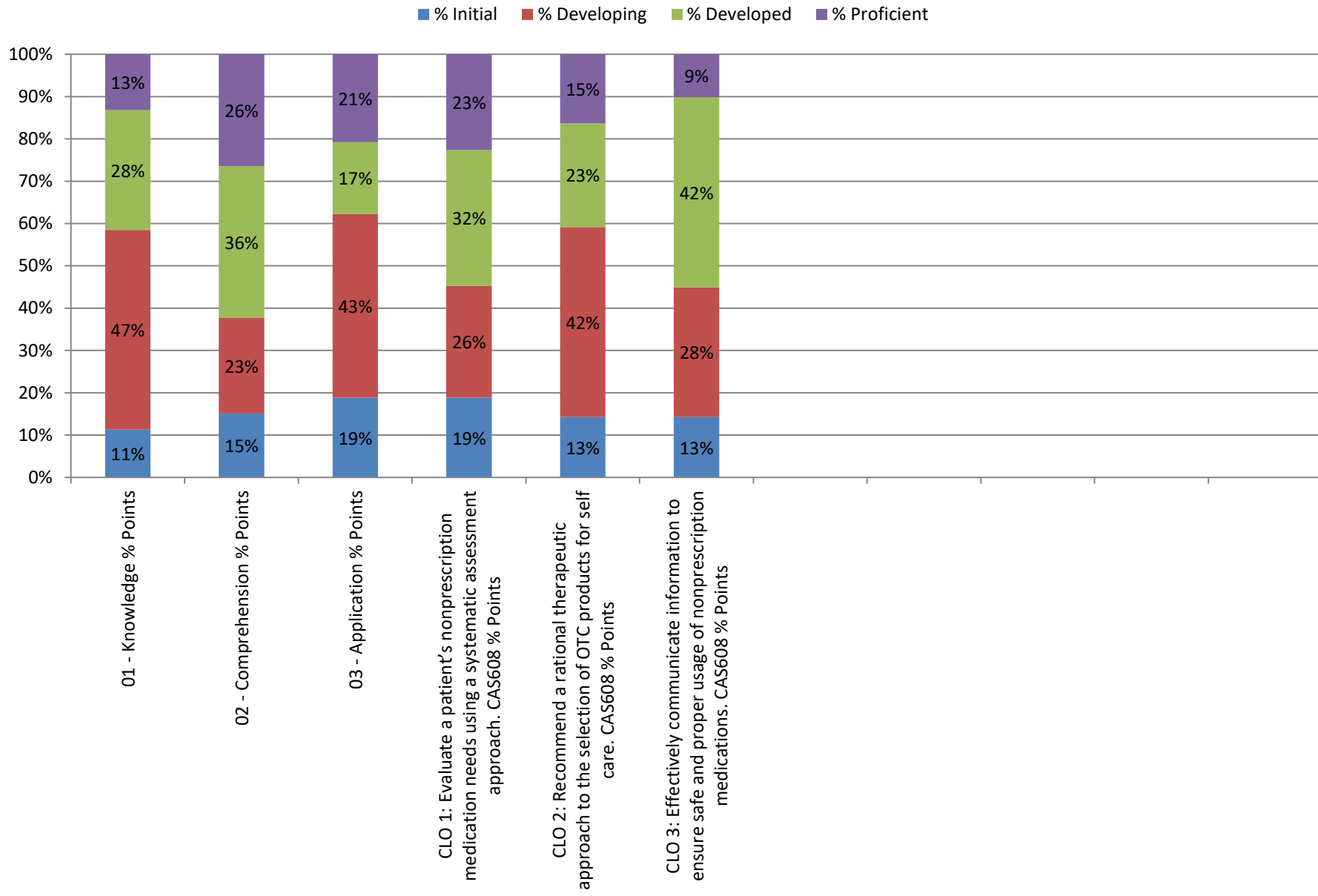
Number of Questions Assessing the Outcome



Mean Score by Category (with error bars representing standard deviation)



Proficiency Level Distribution by Category

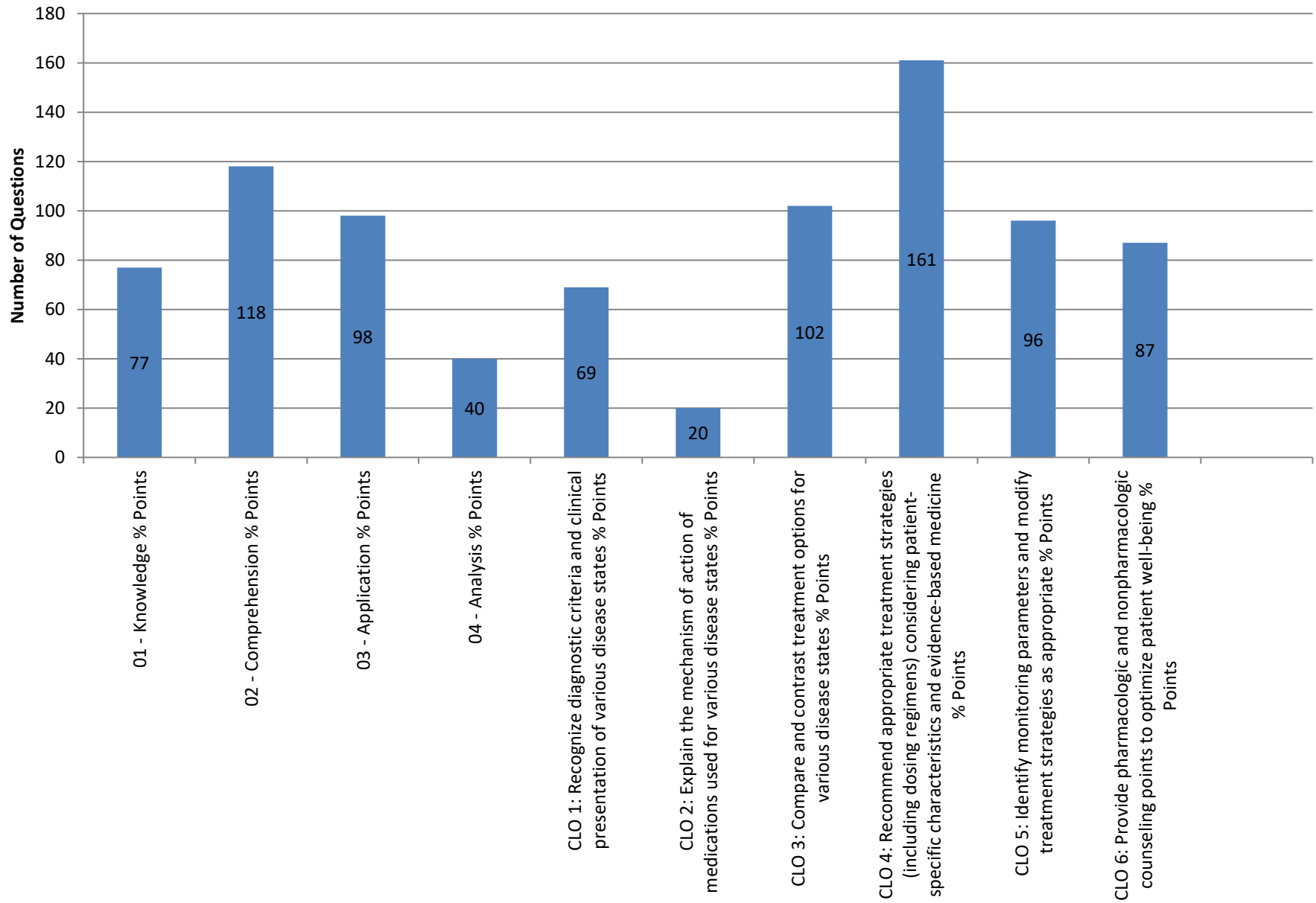


CAS 706 CLO Report

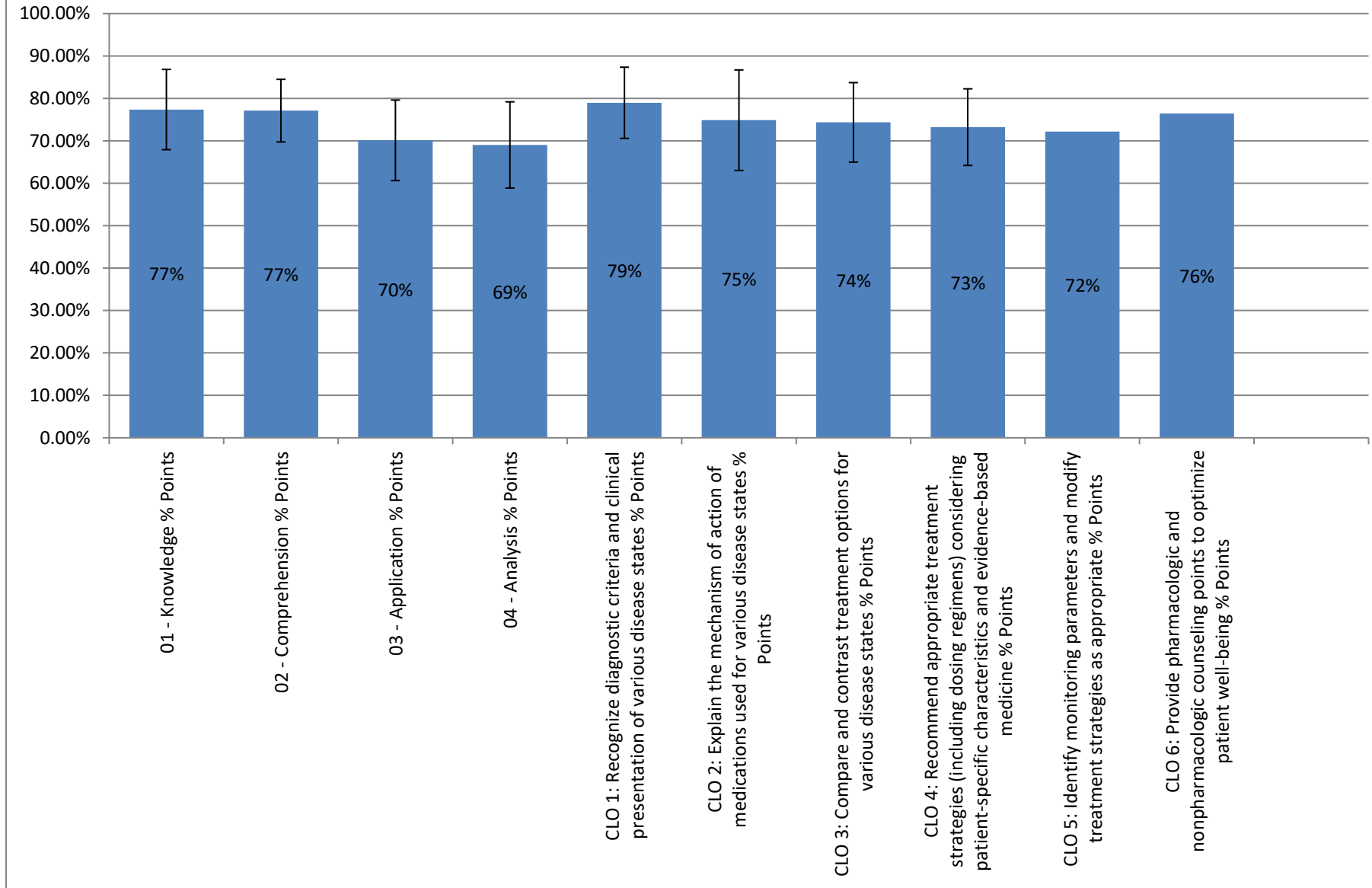
Brief Analysis: The distribution of questions based on Blooms Taxonomy is well distributed. The student performance is also well balanced with only analysis type questions demonstrating worse performance, which is to be expected since this is the highest level of complexity based on Blooms Taxonomy.

Name	01 - Knowledge % Points	02 - Comprehension % Points	03 - Application % Points	04 - Analysis % Points	05 - Synthesis/Evaluation % Points	CLO 1: Recognize diagnostic criteria and clinical presentation of various disease states % Points	CLO 2: Explain the mechanism of action of medications used for various disease states % Points	CLO 3: Compare and contrast treatment options for various disease states % Points	CLO 4: Recommend appropriate treatment strategies (including dosing regimens) considering patient-specific characteristics and evidence-based medicine % Points	CLO 5: Identify monitoring parameters and modify treatment strategies as appropriate % Points	CLO 6: Provide pharmacologic and nonpharmacologic counseling points to optimize patient well-being % Points
	11	11	11	11	11	11	11	11	11	11	11
	77	118	98	40	69	20	102	161	96	87	77
MEAN	77.37%	77.12%	70.12%	69.03%	78.97%	74.87%	74.35%	73.23%	72.16%	76.43%	77.37%
Standard Deviation	9.46%	7.37%	9.49%	10.17%	8.39%	11.85%	9.38%	9.03%	9.55%	8.27%	9.46%
MEDIAN	76.79%	76.19%	69.73%	68.97%	79.59%	75.00%	74.57%	72.82%	71.21%	76.67%	76.79%
MIN	59.02%	61.76%	52.46%	41.38%	61.40%	47.06%	56.44%	58.93%	53.62%	58.57%	59.02%
MAX	94.64%	91.67%	93.44%	89.66%	95.92%	93.75%	94.32%	94.36%	90.91%	91.67%	94.64%
25th Percentile	71.43%	71.75%	64.11%	62.07%	71.94%	68.75%	67.05%	66.93%	65.15%	70.00%	71.43%
75th Percentile	83.48%	82.14%	77.05%	75.86%	85.31%	81.25%	80.68%	79.52%	78.79%	83.33%	83.48%
Initial: <69%	13	7	33	39	8	22	20	23	23	13	13
% Initial	19.70%	10.61%	50.00%	59.09%	12.12%	33.33%	30.30%	34.85%	35.38%	20.00%	19.70%
Developing or better : at or above 69%	51	56	33	27	56	44	44	41	35	52	51
Developing only: 69%-79.999%	77.27%	84.85%	50.00%	40.91%	84.85%	66.67%	66.67%	62.12%	53.85%	80.00%	77.27%
% Developing	26	32	22	20	28	16	26	25	19	28	26
Developed or better: at or above 79%	39.39%	48.48%	33.33%	30.30%	42.42%	24.24%	39.39%	37.88%	29.23%	43.08%	39.39%
% Developed or better	25	24	11	7	28	28	18	16	16	24	25
Developed only: 79%-89.999%	37.88%	36.36%	16.67%	10.61%	42.42%	42.42%	27.27%	24.24%	24.62%	36.92%	37.88%
% Developed	15	20	10	7	23	22	14	14	15	21	15
Proficient: at or above 89%	22.73%	30.30%	15.15%	10.61%	34.85%	33.33%	21.21%	21.21%	23.08%	32.31%	22.73%
% Proficient	10	4	1	0	5	6	4	2	1	3	10
Total number of students	15.15%	6.06%	1.52%	0.00%	7.58%	9.09%	6.06%	3.03%	1.54%	4.62%	15.15%

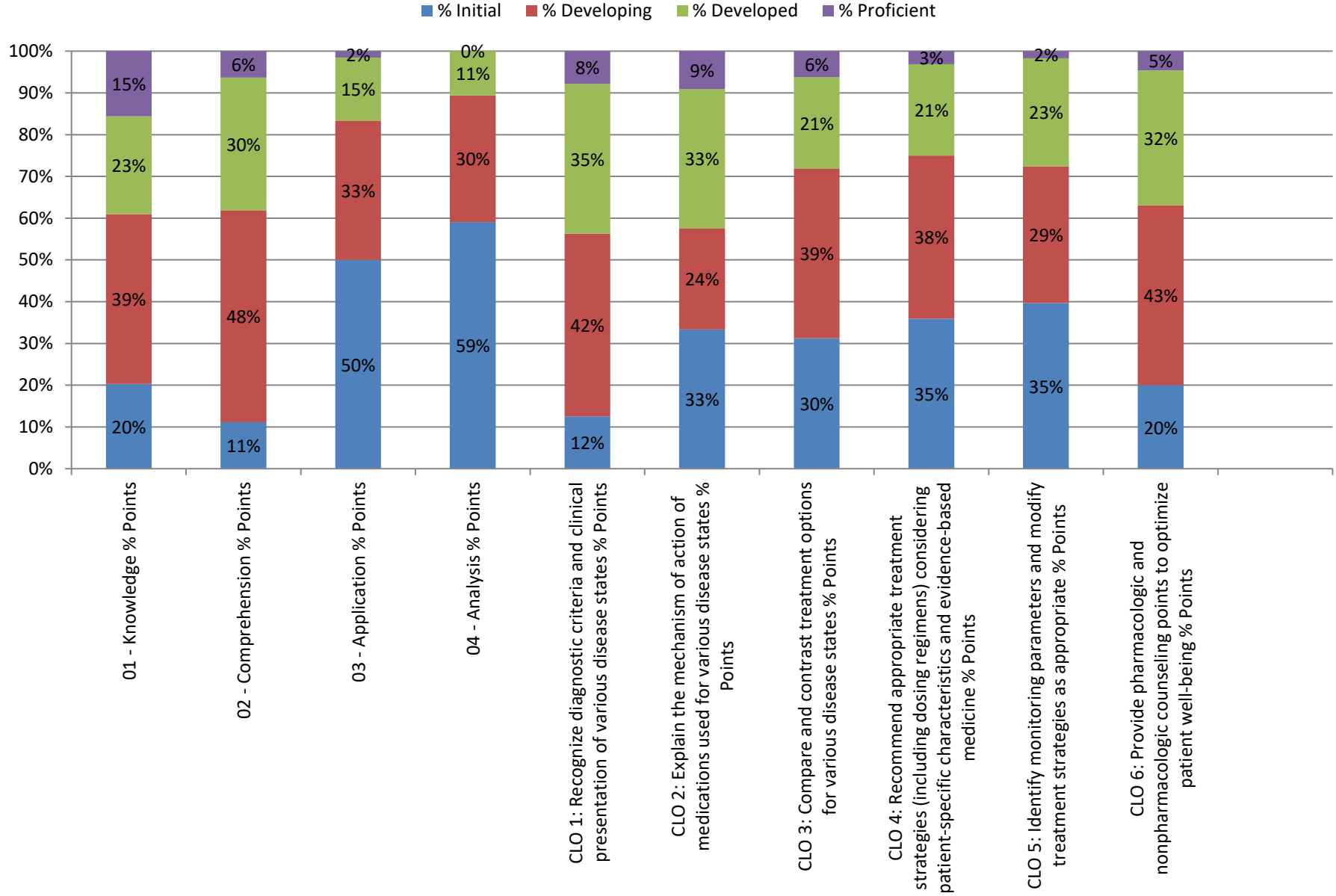
Number of Questions Assessing the Outcome



Mean Score by Category (with error bars representing standard deviation)



Proficiency Level Distribution by Category

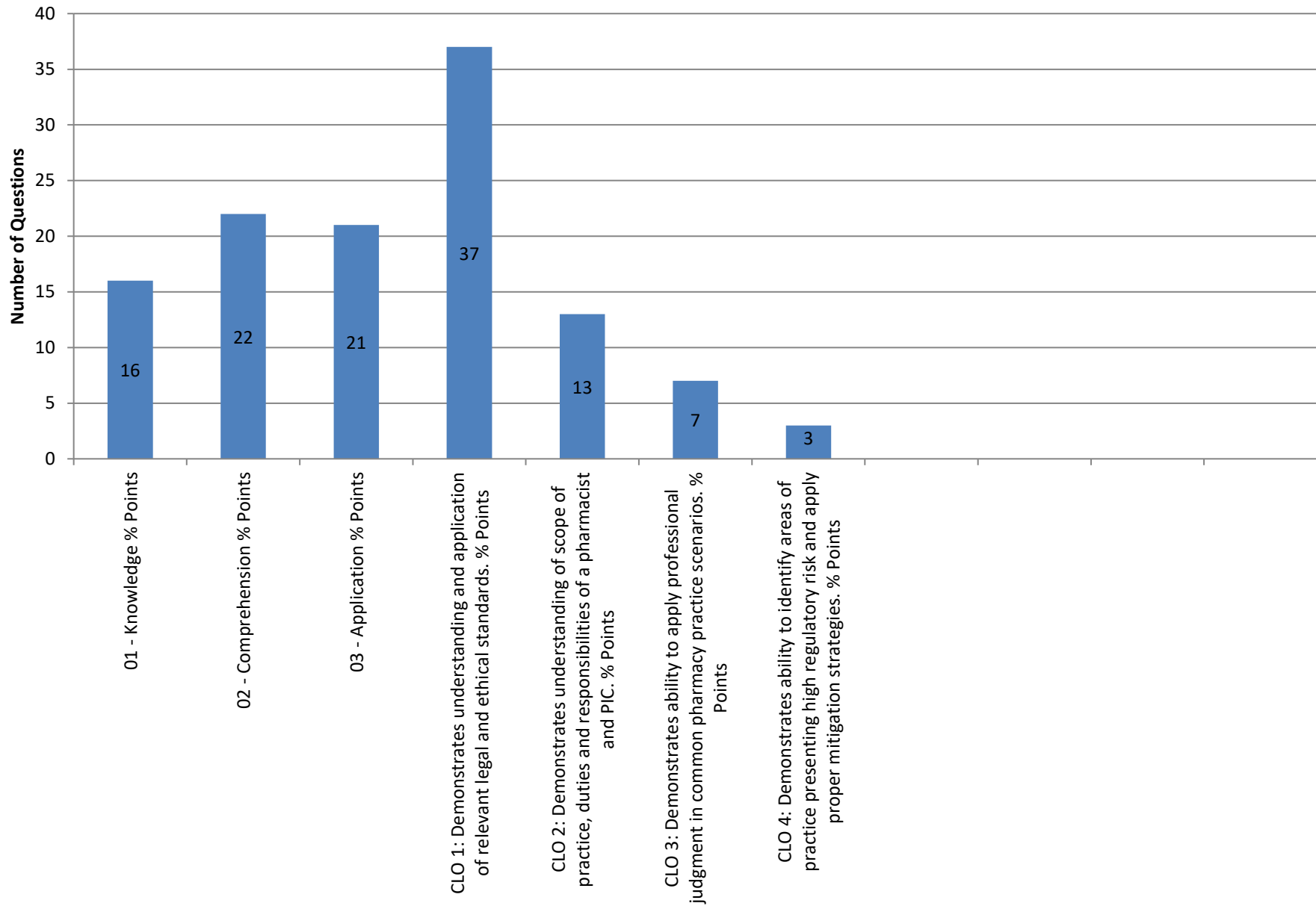


CAS 802 CLO Report

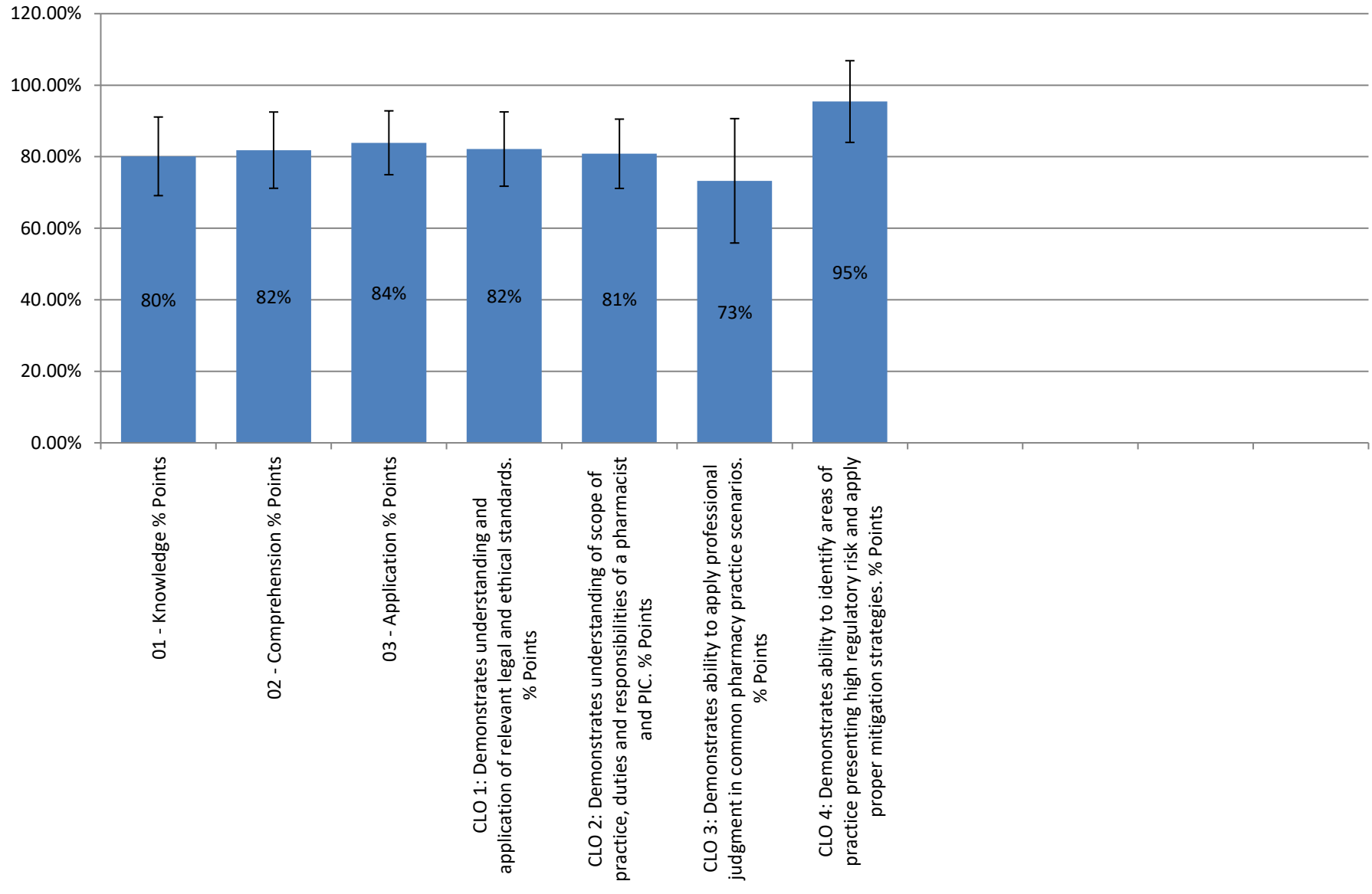
Brief Analysis: Based on the blooms taxonomy the number of questions are well distributed. However, it appears that the majority of the questions on summative examinations focus on CLO 1 relative to the other CLOs. Unless CLO 2, 3, and 4 are assessed using other methods such as individual assignments and projects, I would encourage increasing the number of questions on exams to assesses these learning outcomes. Student performance based on blooms taxonomy was also similar.

Name	01 - Knowledge % Points	02 - Comprehension % Points	03 - Application % Points	CLO 1: Demonstrates understanding and application of relevant legal and ethical standards. % Points	CLO 2: Demonstrates understanding of scope of practice, duties and responsibilities of a pharmacist and PIC. % Points	CLO 3: Demonstrates ability to apply professional judgment in common pharmacy practice scenarios. % Points	CLO 4: Demonstrates ability to identify areas of practice presenting high regulatory risk and apply proper mitigation strategies. % Points
	1	1	1	1	1	1	1
	16	22	21	37	13	7	3
							84.70%
MEAN	80.11%	81.84%	83.89%	82.14%	80.82%	73.26%	95.42%
Standard Deviation	10.99%	10.66%	8.92%	10.39%	9.69%	17.39%	11.42%
MEDIAN	81.25%	81.82%	85.71%	83.78%	84.62%	82.89%	100.00%
MIN	46.88%	50.00%	57.14%	51.35%	46.15%	14.29%	66.67%
MAX	93.75%	95.45%	95.24%	97.30%	100.00%	100.00%	100.00%
25th Percentile	75.00%	77.27%	80.95%	75.68%	76.92%	71.43%	100.00%
75th Percentile	87.50%	90.91%	90.48%	91.22%	84.62%	85.71%	100.00%
Initial: <69%	21	16	7	15	9	23	14
% Initial	19.81%	15.09%	6.60%	14.15%	8.49%	21.70%	13.21%
Developing or better : at or above 69%	85	90	99	91	86	83	92
% Developing or better	80.19%	84.91%	93.40%	85.85%	81.13%	78.30%	86.79%
Developing only: 69%-79.999%	17	22	19	21	23	29	0
% Developing	16.04%	20.75%	17.92%	19.81%	21.70%	27.36%	0.00%
Developed or better: at or above 79%	68	68	80	70	63	54	92
% Developed or better	64.15%	64.15%	75.47%	66.04%	59.43%	50.94%	86.79%
Developed only: 79%-89.999%	55	33	39	43	42	51	1
% Developed	51.89%	31.13%	36.79%	40.57%	39.62%	48.11%	0.94%
Proficient: at or above 89%	13	35	41	27	21	3	91
% Proficient	12.26%	33.02%	38.68%	25.47%	19.81%	2.83%	85.85%

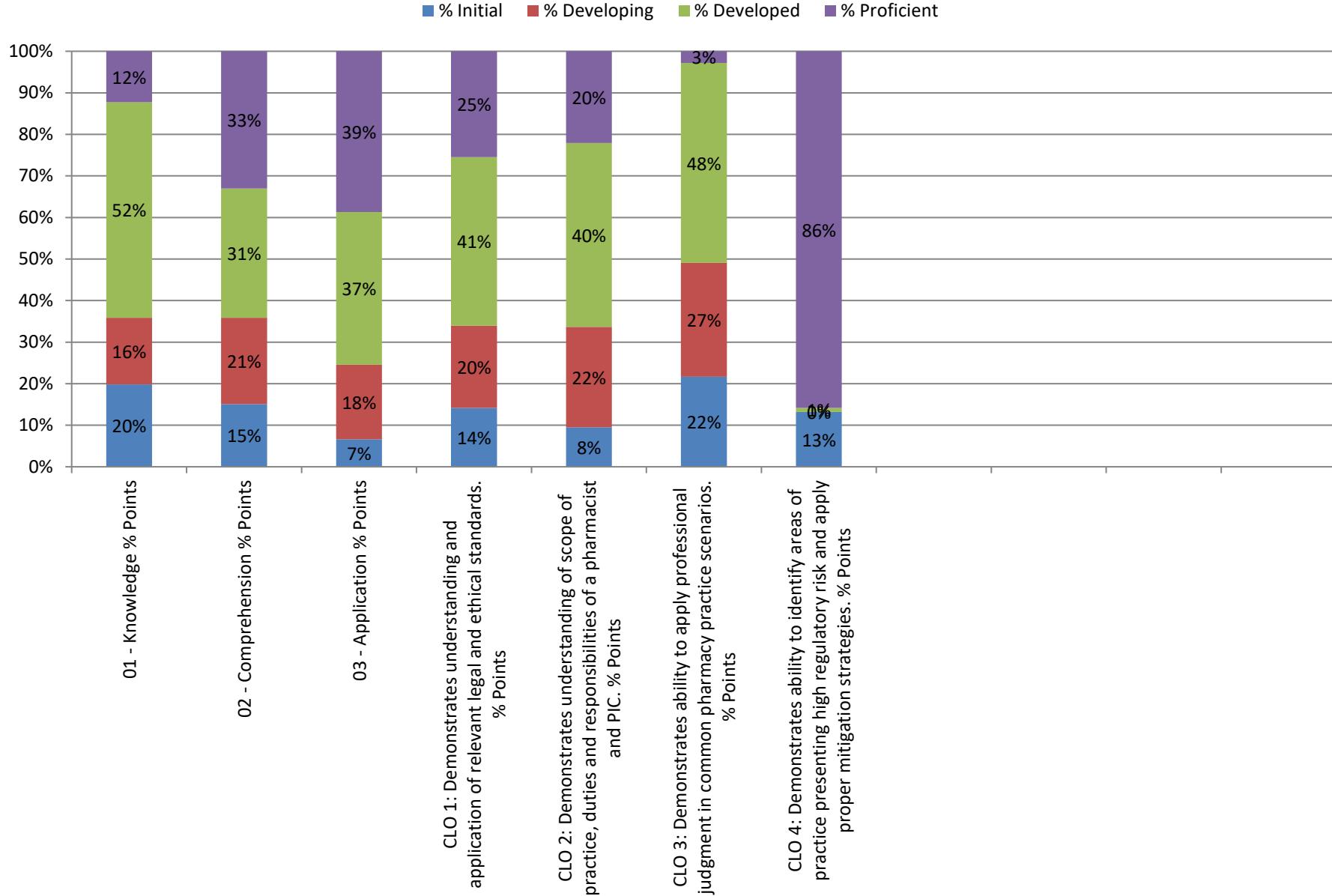
Number of Questions Assessing the Outcome



Mean Score by Category (with error bars representing standard deviation)



Proficiency Level Distribution by Category

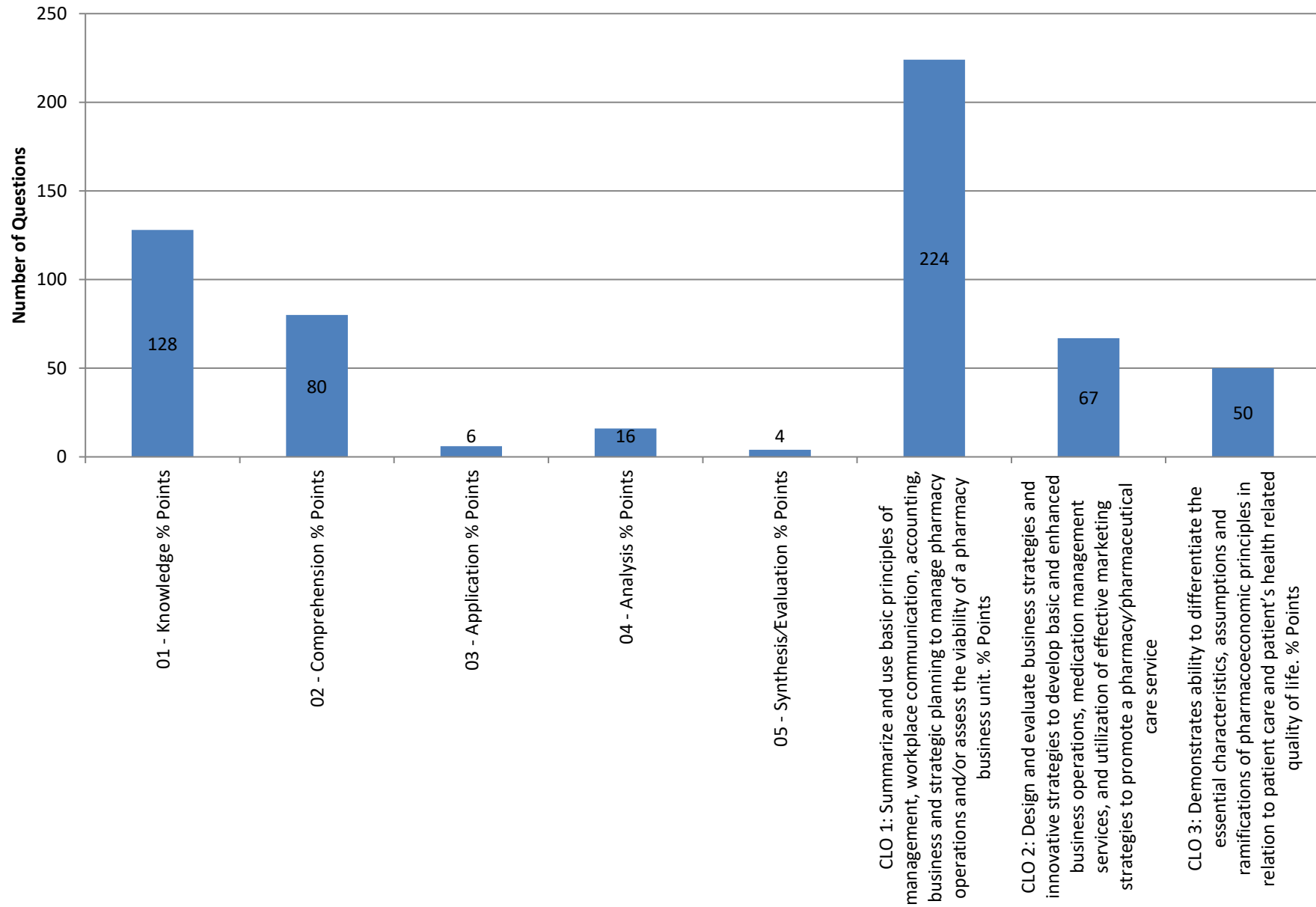


CAS 804 CLO Report

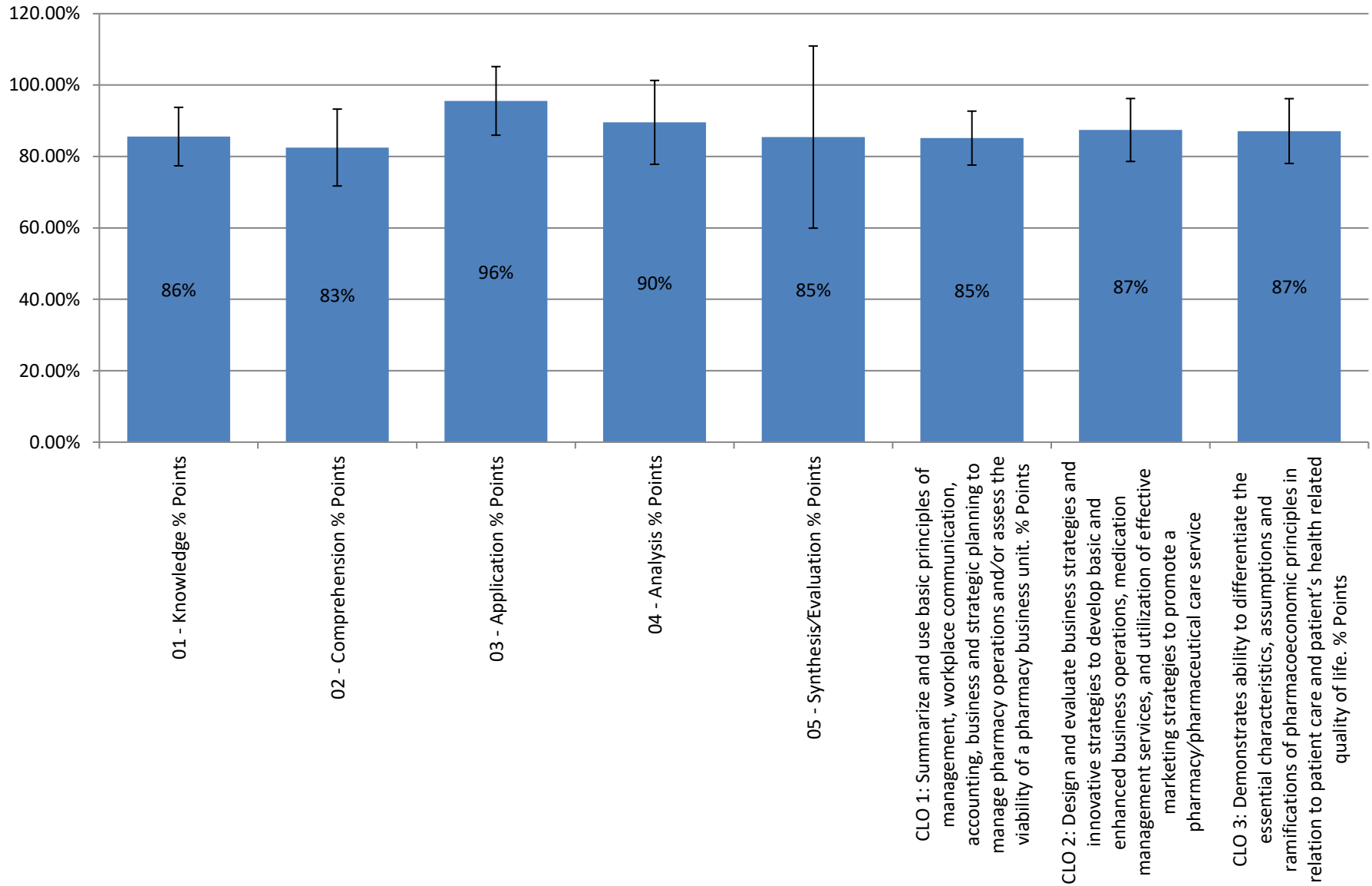
Brief Analysis: Based on the blooms taxonomy the number of questions are well distributed though primarily focused on knowledge and comprehension based cases with several questions being asked at higher levels of complexity. It appears that the majority of the questions on summative examinations focus on CLO 1 relative to the other CLOs. Unless CLO 4 is assessed using other methods such as individual assignments and projects, I would encourage increasing the number of questions on exams to assesses this learning outcomes further. Student performance of these CLOs is relatively well balanced.

Name	Name	01 - Knowledge % Points	02 - Comprehension % Points	03 - Application % Points	04 - Analysis % Points	05 - Synthesis/Evaluation % Points	CLO 1: Summarize and use basic principles of management, workplace communication, business and strategic planning to manage pharmacy operations and/or assess the viability of a pharmacy business unit. % Points	CLO 2: Design and evaluate business strategies and innovative strategies to develop basic and enhanced business operations, medication management services, and utilization of effective marketing strategies to promote a pharmacy/pharmaceutical care service % Points	CLO 3: Demonstrates ability to differentiate the essential characteristics, assumptions and ramifications of pharmacoeconomic principles in relation to patient care and patient's health related quality of life. % Points	CLO 4: Uses the knowledge, skills, abilities, behaviors, and attitudes necessary to demonstrate self-awareness, innovation, and entrepreneurship. % Points
		5	5	3	2	2	5	5	5	4
		128	80	6	16	4	224	67	50	7
MEAN	85.58%	82.51%	95.57%	89.56%	85.44%	85.15%	87.42%	87.12%	77.97%	85.58%
Standard Deviation	8.19%	10.76%	9.61%	11.74%	25.51%	7.56%	8.81%	9.07%	22.78%	8.19%
MEDIAN	87.65%	84.91%	100.00%	87.50%	100.00%	86.47%	89.19%	89.74%	80.00%	87.65%
MIN	62.96%	58.49%	75.00%	37.50%	0.00%	63.16%	59.46%	61.54%	0.00%	62.96%
MAX	97.53%	98.11%	100.00%	100.00%	100.00%	96.99%	100.00%	100.00%	100.00%	97.53%
25th Percentile	80.25%	75.47%	100.00%	87.50%	50.00%	80.08%	83.78%	82.05%	60.00%	80.25%
75th Percentile	91.36%	90.57%	100.00%	100.00%	100.00%	90.61%	94.59%	94.87%	100.00%	91.36%
Initial: <69%	4	12	0	4	21	3	2	4	23	4
% Initial	5.06%	15.19%	0.00%	5.06%	26.58%	3.80%	2.53%	5.06%	29.11%	5.06%
Developing or better : at or above 69%	75	67	79	75	58	76	77	75	56	75
Developing only: 69%-79.999%	94.94%	84.81%	100.00%	94.94%	73.42%	96.20%	97.47%	94.94%	70.89%	94.94%
% Developing	11	14	14	10	0	16	13	10	0	11
Developed or better: at or above 79%	13.92%	17.72%	17.72%	12.66%	0.00%	20.25%	16.46%	12.66%	0.00%	13.92%
% Developed or better	64	53	65	65	58	60	64	65	56	64
Developed only: 79%-89.999%	81.01%	67.09%	82.28%	82.28%	73.42%	75.95%	81.01%	82.28%	70.89%	81.01%
% Developed	32	24	0	32	0	29	19	22	28	32
Proficient: at or above 89%	40.51%	30.38%	0.00%	40.51%	0.00%	36.71%	24.05%	27.85%	35.44%	40.51%
% Proficient	32	29	65	33	58	31	45	43	28	32
Total number of students	40.51%	36.71%	82.28%	41.77%	73.42%	39.24%	56.96%	54.43%	35.44%	40.51%

Number of Questions Assessing the Outcome

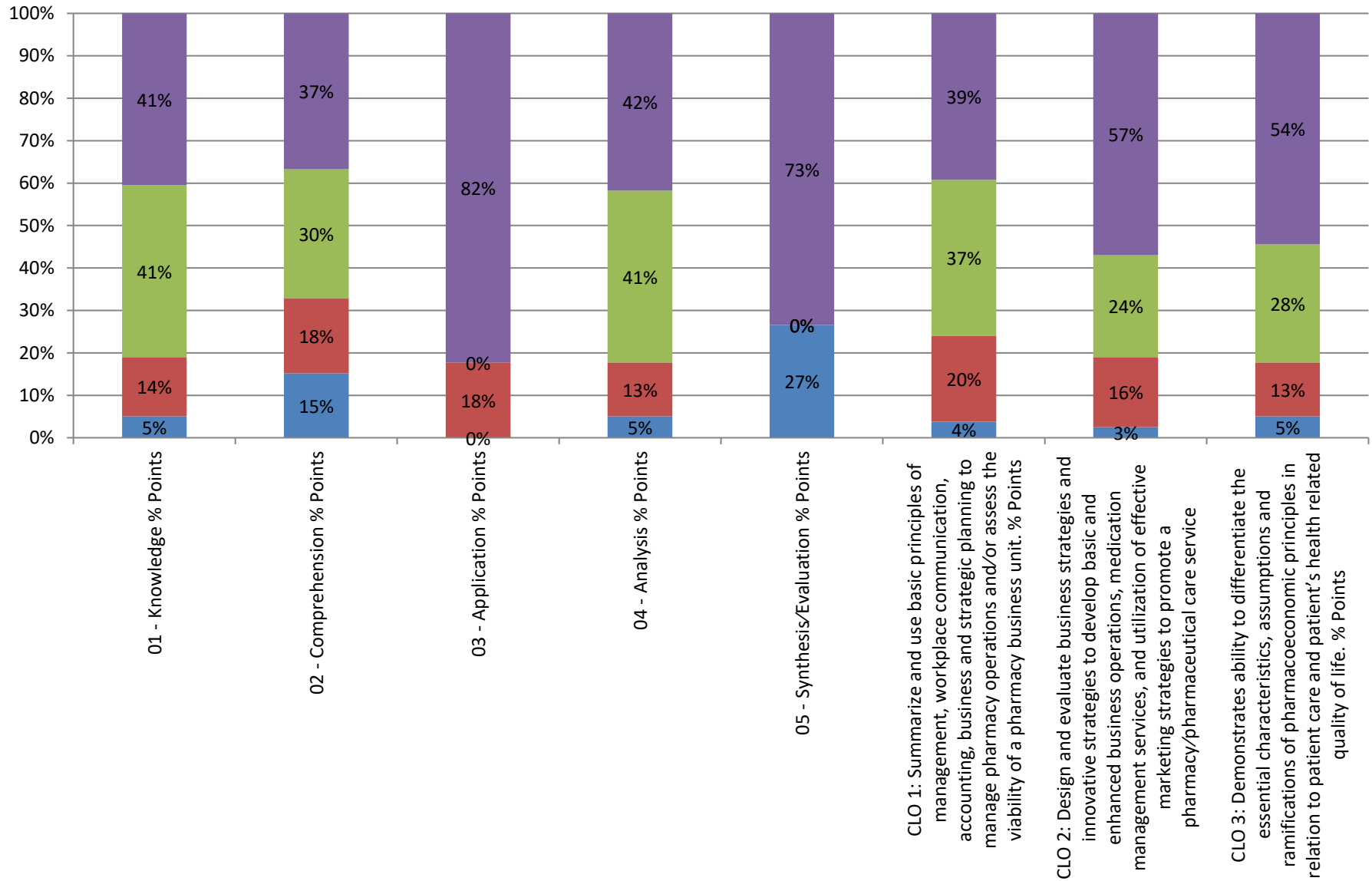


Mean Score by Category (with error bars representing standard deviation)



Proficiency Level Distribution by Category

■ % Initial
 ■ % Developing
 ■ % Developed
 ■ % Proficient



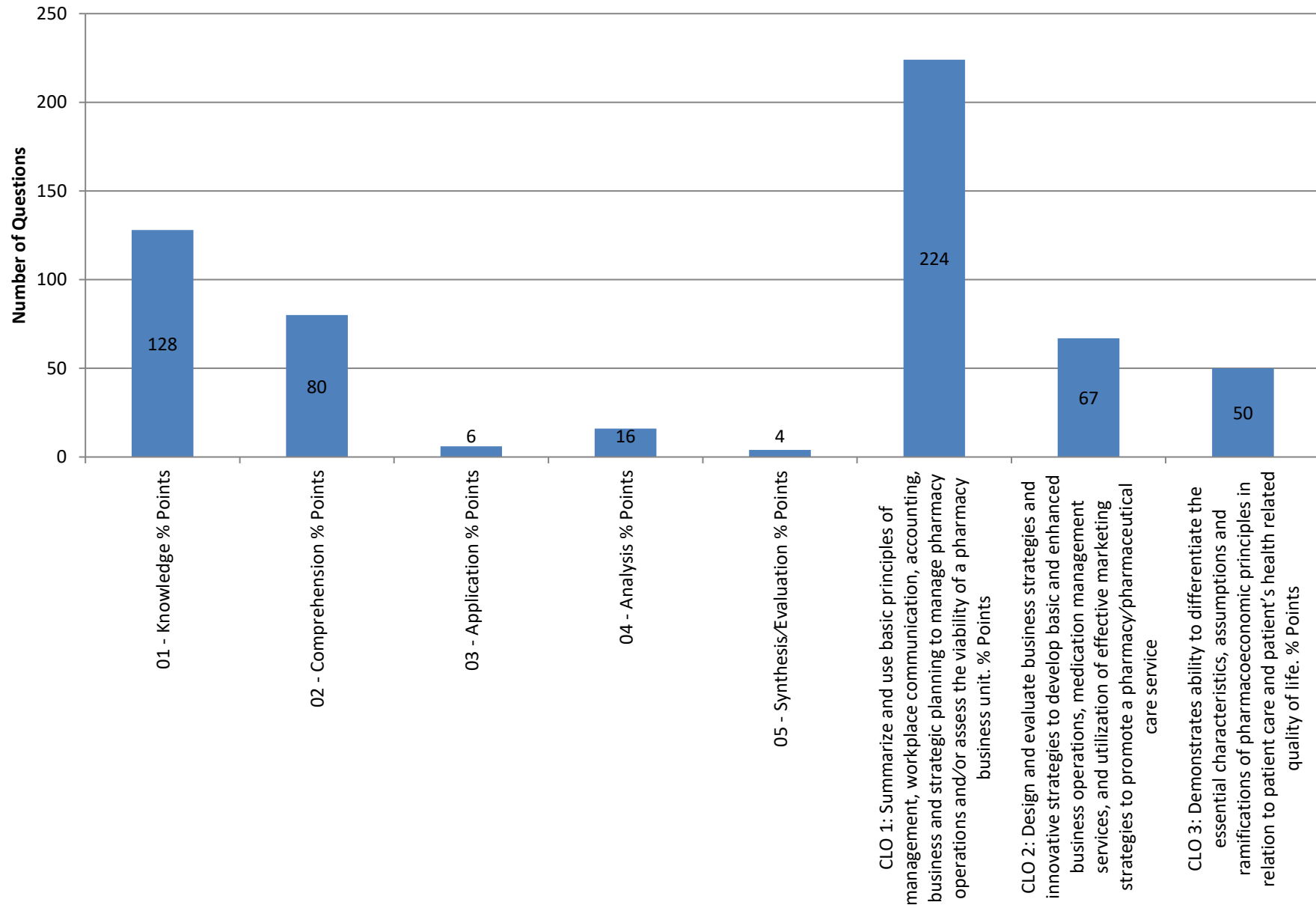
CAS 806 CLO Report

Brief Analysis: Based on the blooms taxonomy the number of questions are well distributed though primarily focused on knowledge and comprehension based cases with several questions being asked at higher levels of complexity. It appears that the majority of the questions on summative examinations focus on CLO 3 relative to the other CLOs. Unless CLO 2, 6 and 7 are assessed using other methods such as individual assignments and projects, I would encourage increasing the number of questions on exams to assesses these learning outcomes further. Student performance of these CLOs is relatively well balanced, except for CLO 5 whose average was above 100%, which is unusual.

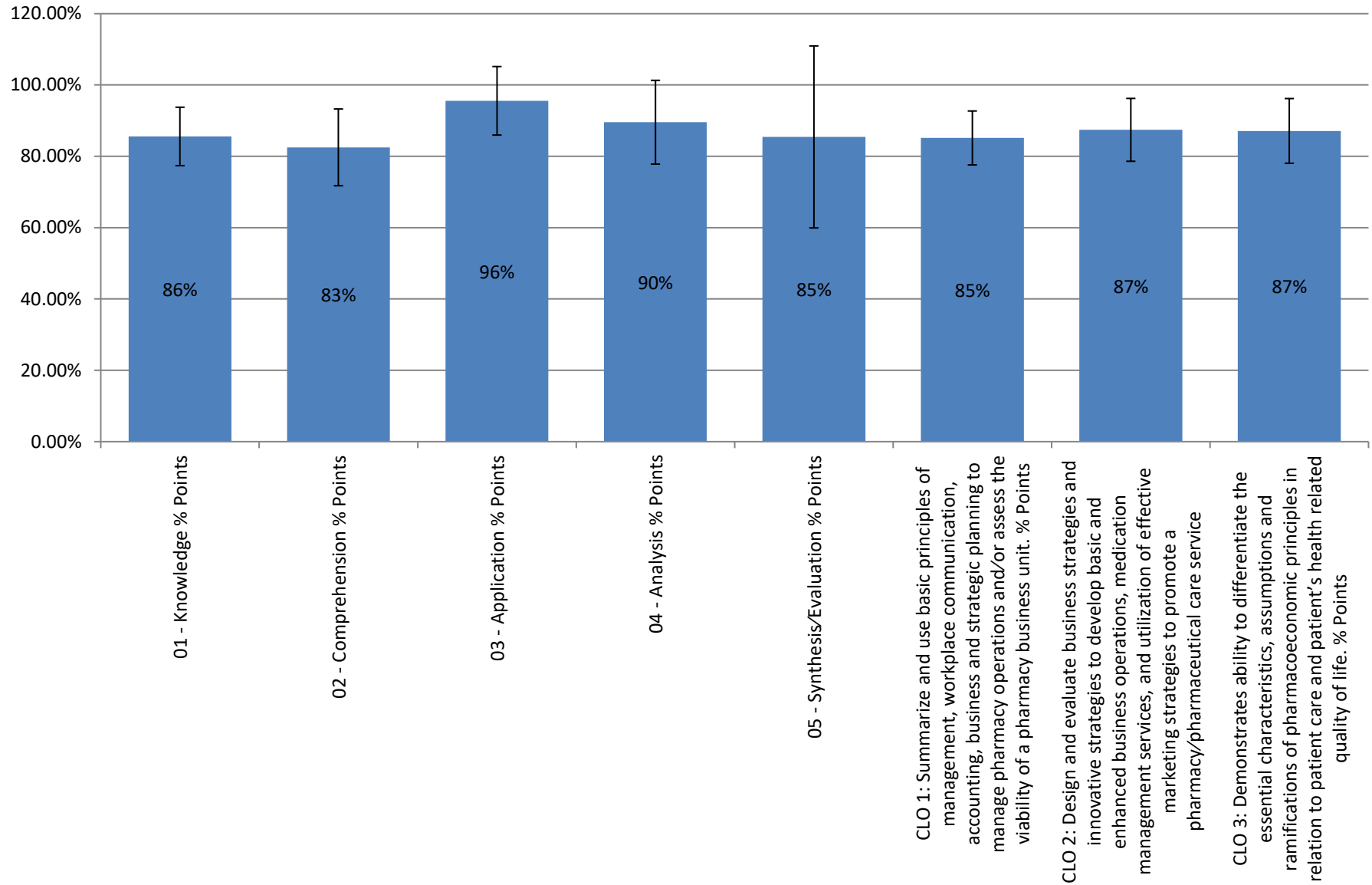
StudentID	Name	01 - Knowledge % Points	02 - Comprehension % Points	03 - Application % Points	2019 CLO 1: Recognize diagnostic criteria and clinical presentation of various disease states % Points	2019 CLO 2: Explain the mechanism of action of medications used for various disease states % Points	2019 CLO 3: Compare and contrast treatment options for various disease states % Points	2019 CLO 4: Recommend appropriate treatment strategies (including dosing regimens) considering patient-specific characteristics and evidence based medicine % Points	2019 CLO 5: Apply the principle of clinical pharmacokinetics to calculate dosing schemes individualized to specific patients % Points	2019 CLO 6: Identify monitoring parameters and modify treatment strategies as appropriate % Points	2019 CLO 7: Provide pharmacologic and nonpharmacologic counseling points to optimize patient well-being % Points
# Assessments		5	5	5	6	4	4	6	4	4	4
		128	80	6	16	4	224	67	50	7	13
MEAN	85.58%	76.40%	77.80%	78.97%	91.27%	86.72%	96.27%	89.91%	103.30%	97.01%	84.76%
Standard Deviation	8.19%	14.08%	13.68%	16.36%	8.26%	13.00%	15.71%	8.28%	14.10%	10.56%	12.63%
MEDIAN	87.65%	78.33%	79.44%	86.12%	92.49%	87.98%	100.00%	91.16%	114.64%	100.00%	86.21%
MIN	62.96%	36.16%	44.00%	35.81%	61.13%	40.83%	38.10%	62.84%	58.54%	54.73%	42.71%
MAX	97.53%	107.98%	106.05%	100.00%	103.80%	100.00%	112.81%	100.00%	120.69%	109.93%	100.00%
25th Percentile	80.25%	69.59%	71.61%	72.88%	88.10%	75.97%	87.52%	85.23%	100.00%	90.07%	75.92%
75th Percentile	91.36%	84.04%	85.49%	87.40%	96.29%	100.00%	112.81%	95.74%	114.64%	104.97%	93.02%
Initial: <69%	4	19	17	17	2	8	5	2	1	1	11
% Initial	5.06%	25.33%	22.67%	22.67%	2.67%	10.67%	6.67%	2.67%	1.33%	1.33%	14.67%
Developing or better : at or above 69%	75	56	58	58	73	67	70	73	74	74	64
Developing only: 69%-79.999%	94.94%	74.67%	77.33%	77.33%	97.33%	89.33%	93.33%	97.33%	98.67%	98.67%	85.33%
% Developing	11	22	19	18	4	14	3	4	2	2	13
Developed or better: at or above 79%	13.92%	29.33%	25.33%	24.00%	5.33%	18.67%	4.00%	5.33%	2.67%	2.67%	17.33%
% Developed or better	64	34	39	40	69	53	67	69	72	72	51
Developed only: 79%-89.999%	81.01%	45.33%	52.00%	53.33%	92.00%	70.67%	89.33%	92.00%	96.00%	96.00%	68.00%
% Developed	32	21	21	23	16	27	13	19	13	14	16
Proficient: at or above 89%	40.51%	28.00%	28.00%	30.67%	21.33%	36.00%	17.33%	25.33%	17.33%	18.67%	21.33%

% Proficient	32	13	18	17	53	26	54	50	59	58	35
Total number of students	40.51%	17.33%	24.00%	22.67%	70.67%	34.67%	72.00%	66.67%	78.67%	77.33%	46.67%

Number of Questions Assessing the Outcome

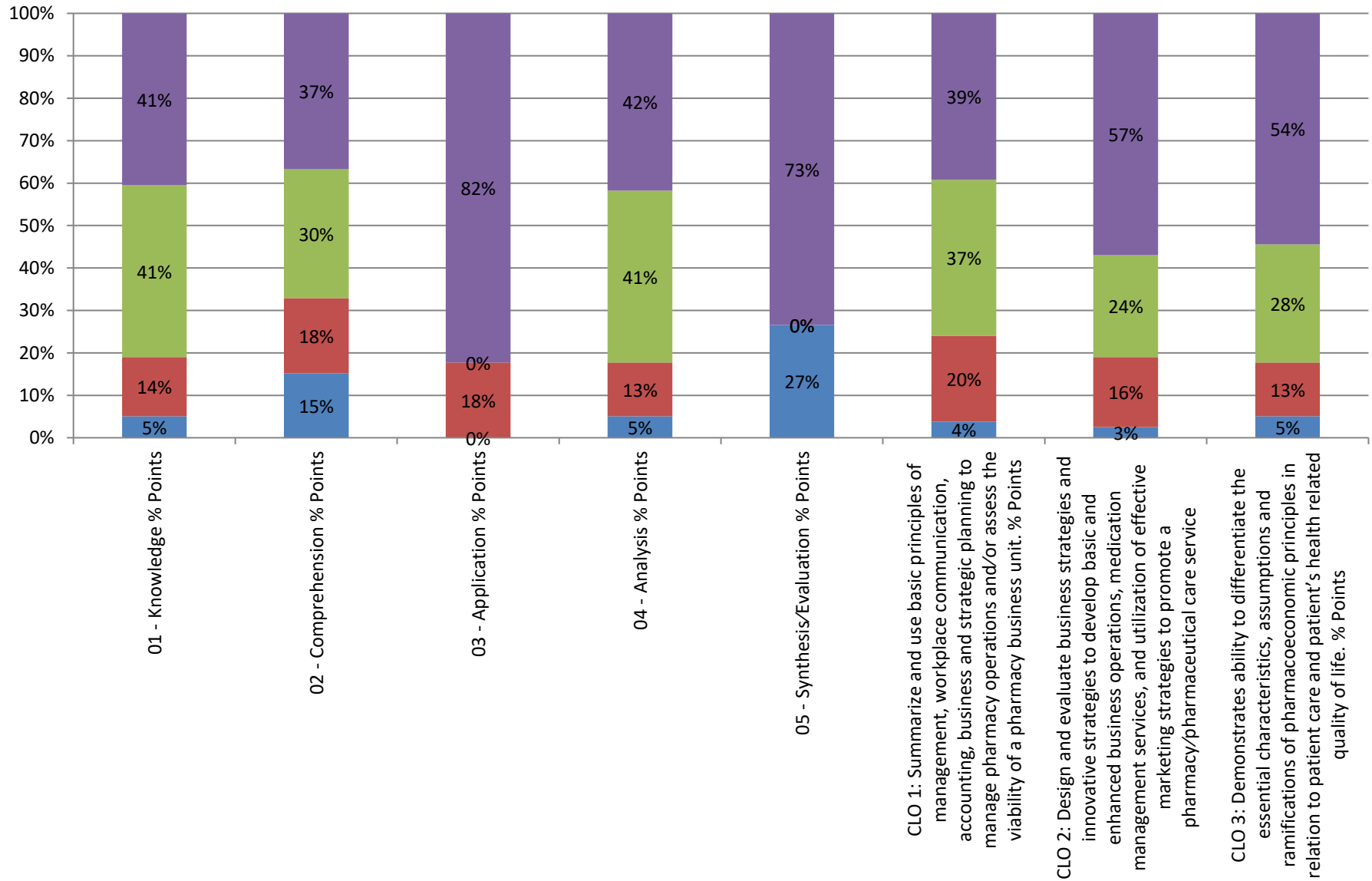


Mean Score by Category (with error bars representing standard deviation)



Proficiency Level Distribution by Category

■ % Initial
 ■ % Developing
 ■ % Developed
 ■ % Proficient

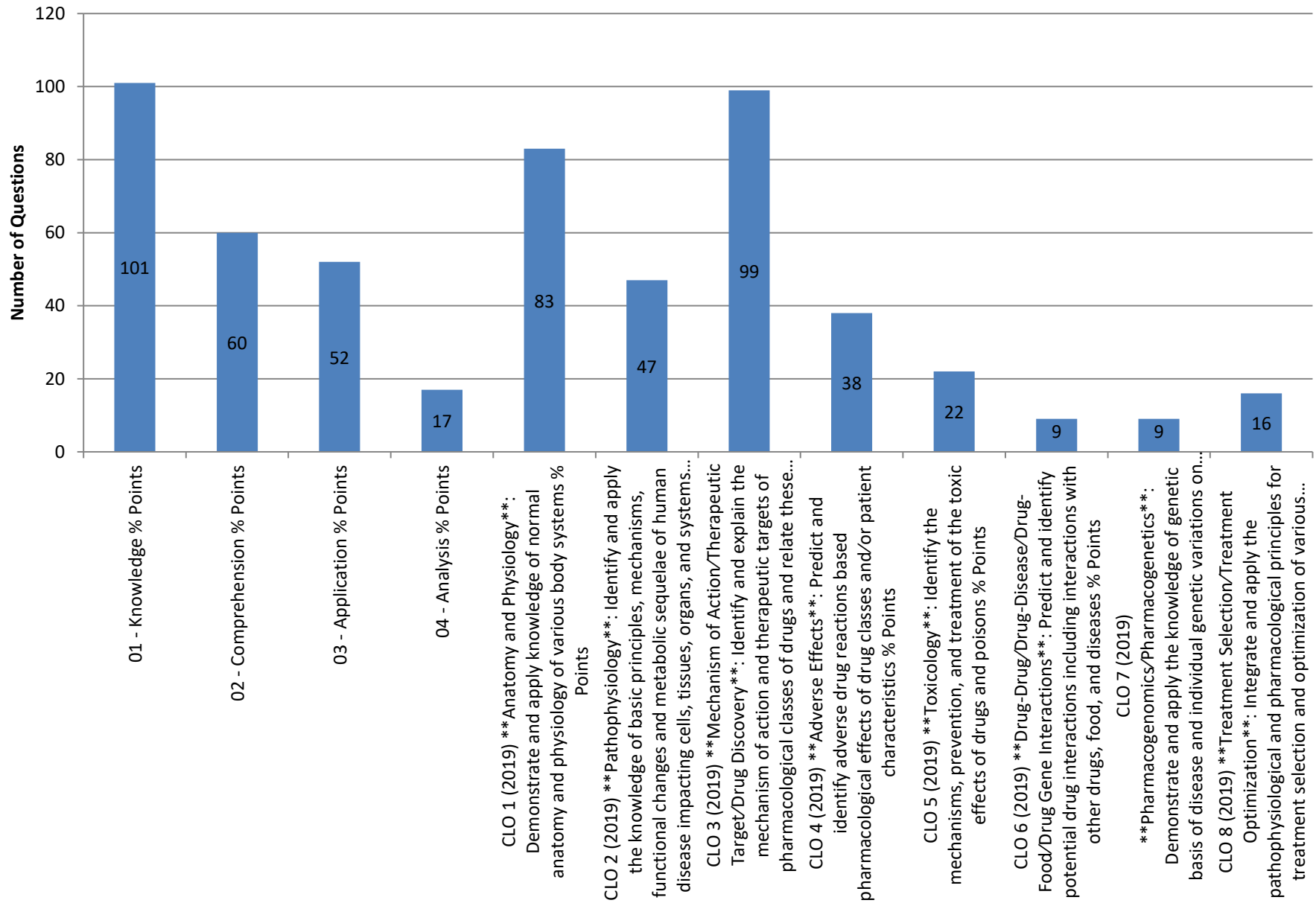


PBS 602 CLO Report

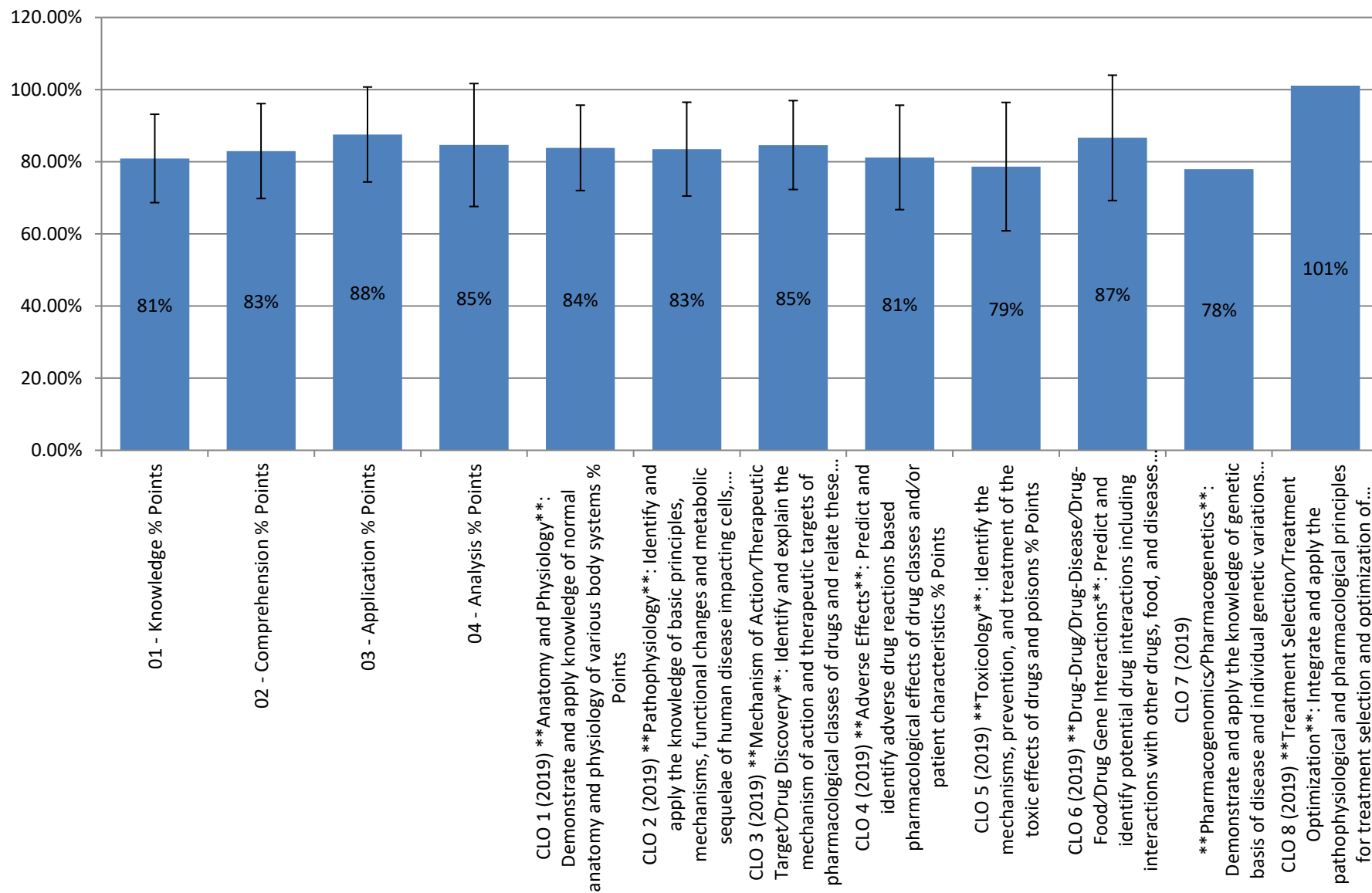
Brief Analysis: The distribution of questions based on Blooms is fairly well distributed with the plurality of questions being knowledge-based questions, though there are quite a few questions consistent with higher level of complexity as well. Likewise it appears that most CLO's were sufficiently assessed except for CLO 6 and 7. Student performance on the CLOs was similar except for CLO where the average performance was above 100%.

Name	01 - Knowledge % Points	02 - Comprehension % Points	03 - Application % Points	04 - Analysis % Points	CLO 1 (2019) **Anatomy and Physiology**: Demonstrate and apply knowledge of normal anatomy and physiology of various body systems % Points	CLO 2 (2019) **Pathophysiology**: Identify and apply the knowledge of basic principles, mechanisms, functional changes and metabolic sequelae of human disease impacting cells, tissues, organs, and systems of various human diseases % Points	CLO 3 (2019) **Mechanism of Action/Therapeutic Target/Drug Discovery**: Identify and explain the mechanism of action and therapeutic targets of pharmacological classes of drugs and relate these properties to their clinical indications % Points	CLO 4 (2019) **Adverse Effects**: Predict and identify adverse drug reactions based pharmacological effects of drug classes and/or patient characteristics % Points	CLO 5 (2019) **Toxicology**: Identify the mechanisms, prevention, and treatment of the toxic effects of drugs and poisons % Points	CLO 6 (2019) **Drug-Drug/Disease/Drug-Food/Drug Gene Interactions**: Predict and identify potential drug interactions including interactions with other drugs, food, and diseases % Points	CLO 7 (2019) **Pharmacogenomics/Pharmacogenetics**: Demonstrate and apply the knowledge of genetic basis of disease and individual genetic variations on the effects pharmacological drug classes that underpin the practice of personalized medicine % Points	CLO 8 (2019) **Treatment Selection/Treatment Optimization**: Integrate and apply the pathophysiological and pharmacological principles for treatment selection and optimization of various disease states % Points
	4	4	4	4	4	4	4	4	4	3	4	3
	101	60	52	17	83	47	99	38	22	9	9	16
MEAN	80.91%	82.96%	87.55%	84.63%	83.85%	83.49%	84.62%	81.19%	78.64%	86.61%	77.94%	101.07%
Standard Deviation	12.25%	13.16%	13.17%	17.04%	11.84%	13.00%	12.33%	14.48%	17.80%	17.37%	21.48%	16.73%
MEDIAN	82.08%	83.80%	90.56%	86.67%	85.55%	83.33%	84.66%	81.48%	77.27%	100.00%	78.57%	110.00%
MIN	46.48%	54.06%	48.73%	33.33%	52.99%	50.85%	53.62%	45.95%	39.47%	40.00%	25.00%	30.95%
MAX	97.95%	101.41%	106.06%	100.00%	100.78%	103.33%	102.17%	103.70%	109.09%	100.00%	100.00%	110.00%
25th Percentile	73.91%	76.41%	81.34%	73.33%	78.52%	76.04%	79.26%	72.65%	63.64%	80.00%	64.29%	95.00%
75th Percentile	90.41%	92.96%	97.92%	100.00%	91.40%	93.54%	93.54%	91.53%	90.91%	100.00%	100.00%	110.00%
Initial: <69%	8	9	5	12	6	7	5	9	16	8	14	3
% Initial	15.69%	17.65%	9.80%	23.53%	11.76%	13.73%	9.80%	17.65%	31.37%	15.69%	27.45%	5.88%
Developing or better : at or above 69%	43	41	46	39	44	44	45	42	35	43	37	48
% Developing or better	84.31%	80.39%	90.20%	76.47%	86.27%	86.27%	88.24%	82.35%	68.63%	84.31%	72.55%	94.12%
Developing only: 69%-79.999%	15	8	6	3	8	11	9	16	11	3	12	3
% Developing	29.41%	15.69%	11.76%	5.88%	15.69%	21.57%	17.65%	31.37%	21.57%	5.88%	23.53%	5.88%
Developed or better: at or above 79%	28	33	40	36	36	33	36	26	24	40	25	45
% Developed or better	54.90%	64.71%	78.43%	70.59%	70.59%	64.71%	70.59%	50.98%	47.06%	78.43%	49.02%	88.24%
Developed only: 79%-89.999%	14	14	13	14	17	14	18	12	10	12	4	0
% Developed	27.45%	27.45%	25.49%	27.45%	33.33%	27.45%	35.29%	23.53%	19.61%	23.53%	7.84%	0.00%
Proficient: at or above 89%	14	19	27	22	19	19	18	14	14	28	21	45
% Proficient	27.45%	37.25%	52.94%	43.14%	37.25%	37.25%	35.29%	27.45%	27.45%	54.90%	41.18%	88.24%

Number of Questions Assessing the Outcome

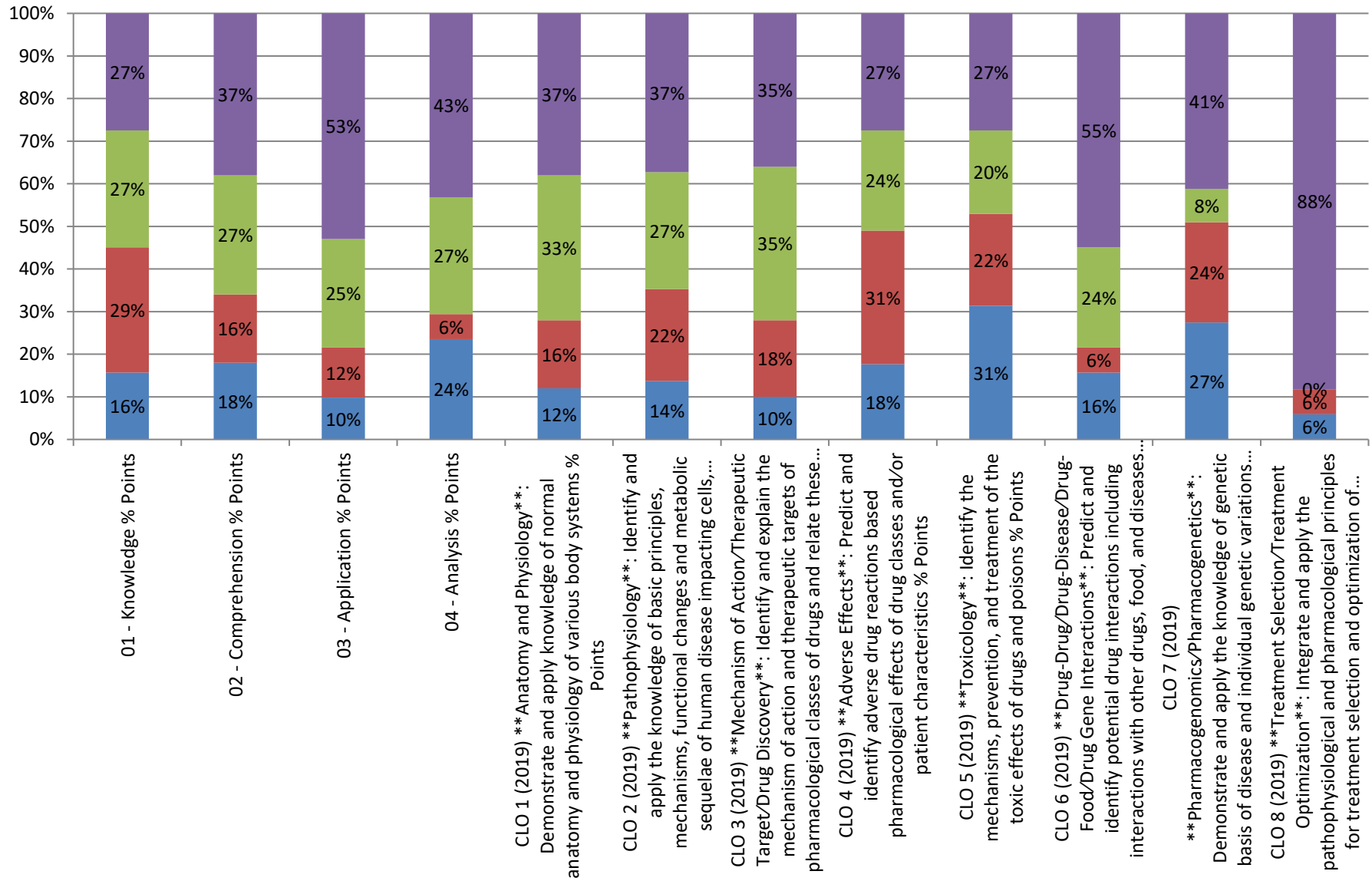


Mean Score by Category (with error bars representing standard deviation)



Proficiency Level Distribution by Category

■ % Initial
 ■ % Developing
 ■ % Developed
 ■ % Proficient

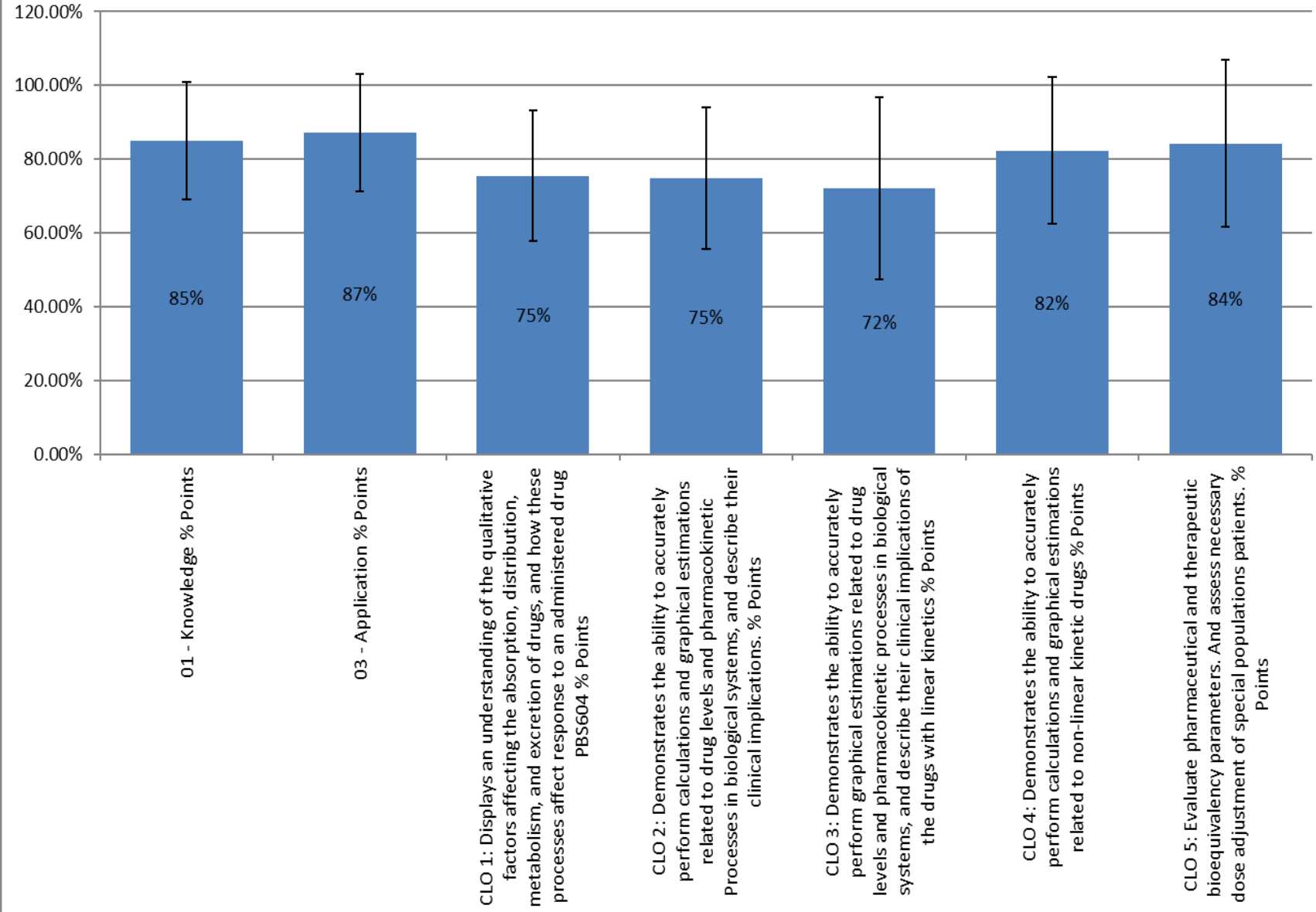


PBS 604 CLO Report

Brief Analysis: Except for CLO 1 and 2 it appears all of the other CLOs were not sufficiently assessed. Most likely this is a result of not tagging many of the questions. Otherwise I would recommend increasing the level of assessment for CLOs 3 through 6 unless they are assessed in a summative in an alternative manner (e.g. individualized projects/assignments). The performance across all CLOs is fairly similar except with CLO 4 where 44% of the student perform in an initial level. This however, may be as a result of a statistical anomaly due to too few questions being asked to assess this CLO. Finally, it does not appear that many questions were tagged to Blooms Taxonomy level. Please, tag questions to Blooms taxonomy in the future for summative assessment to help better determine student proficiency to achieve learning objectives.

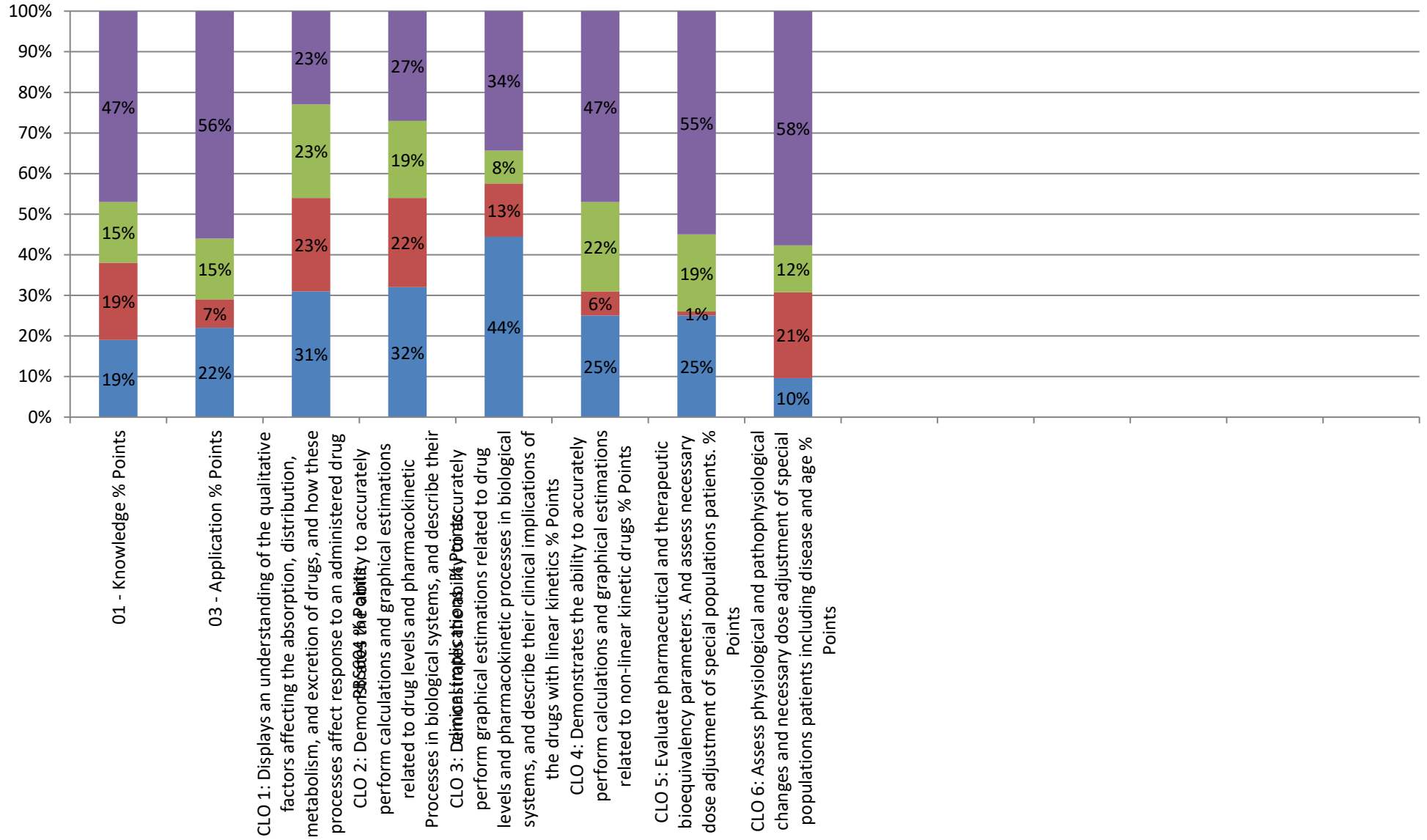
Name	01 - Knowledge % Points	03 - Application % Points	CLO 1: Displays an understanding of the qualitative factors affecting the absorption, distribution, metabolism, and excretion of drugs, and how these processes affect response to an administered drug PBS604 % Points	CLO 2: Demonstrates the ability to accurately perform calculations and graphical estimations related to drug levels and pharmacokinetic Processes in biological systems, and describe their clinical implications. % Points	CLO 3: Demonstrates the ability to accurately perform graphical estimations related to drug levels and pharmacokinetic processes in biological systems, and describe their clinical implications of the drugs with linear kinetics % Points	CLO 4: Demonstrates the ability to accurately perform calculations and graphical estimations related to non-linear kinetic drugs % Points	CLO 5: Evaluate pharmaceutical and therapeutic bioequivalency parameters. And assess necessary dose adjustment of special populations patients. % Points	CLO 6: Assess physiological and pathophysiological changes and necessary dose adjustment of special populations patients including disease and age % Points
	2	2	4	4	2	3	2	2
	8	6	30	20	4	7	3	7
MEAN	84.90%	87.26%	75.45%	74.83%	72.10%	82.30%	84.29%	87.98%
Standard Deviation	15.93%	15.92%	17.71%	19.14%	24.61%	19.93%	22.52%	14.86%
MEDIAN	87.14%	93.33%	77.78%	75.00%	70.95%	86.46%	100.00%	96.88%
MIN	40.43%	33.33%	18.18%	20.72%	0.00%	22.39%	0.00%	42.86%
MAX	100.00%	106.67%	111.11%	100.00%	100.00%	100.00%	100.00%	100.00%
25th Percentile	74.87%	73.33%	63.64%	66.58%	50.00%	70.58%	72.92%	75.00%
75th Percentile	100.00%	100.00%	86.26%	90.91%	100.00%	100.00%	100.00%	100.00%
Initial: <69%	19	22	31	32	44	25	25	5
% Initial	19.00%	22.00%	31.00%	32.00%	44.44%	25.00%	25.00%	9.62%
Developing or better : at or above 69%	81	78	69	68	55	75	75	47
Developing only: 69%-79.999%	81.00%	78.00%	69.00%	68.00%	55.56%	75.00%	75.00%	90.38%
% Developing	19	7	23	22	13	6	1	11
Developed or better: at or above 79%	19.00%	7.00%	23.00%	22.00%	13.13%	6.00%	1.00%	21.15%
% Developed or better	62	71	46	46	42	69	74	36
Developed only: 79%-89.999%	62.00%	71.00%	46.00%	46.00%	42.42%	69.00%	74.00%	69.23%
% Developed	15	15	23	19	8	22	19	6
Proficient: at or above 89%	15.00%	15.00%	23.00%	19.00%	8.08%	22.00%	19.00%	11.54%
% Proficient	47	56	23	27	34	47	55	30
Total number of students	47.00%	56.00%	23.00%	27.00%	34.34%	47.00%	55.00%	57.69%

Mean Score by Category (with error bars representing standard deviation)



Proficiency Level Distribution by Category

■ % Initial ■ % Developing ■ % Developed ■ % Proficient

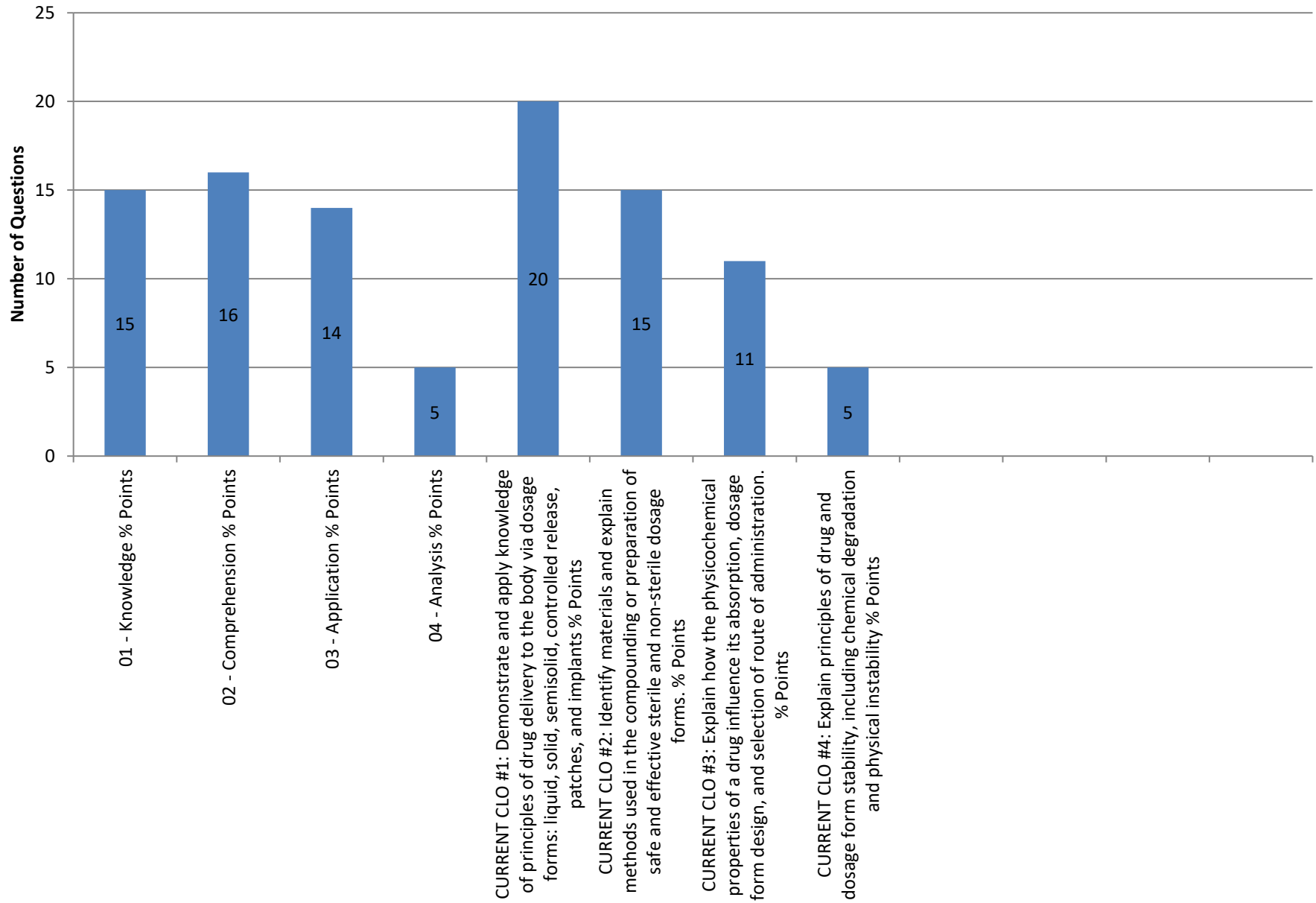


PBS 605 CLO Report

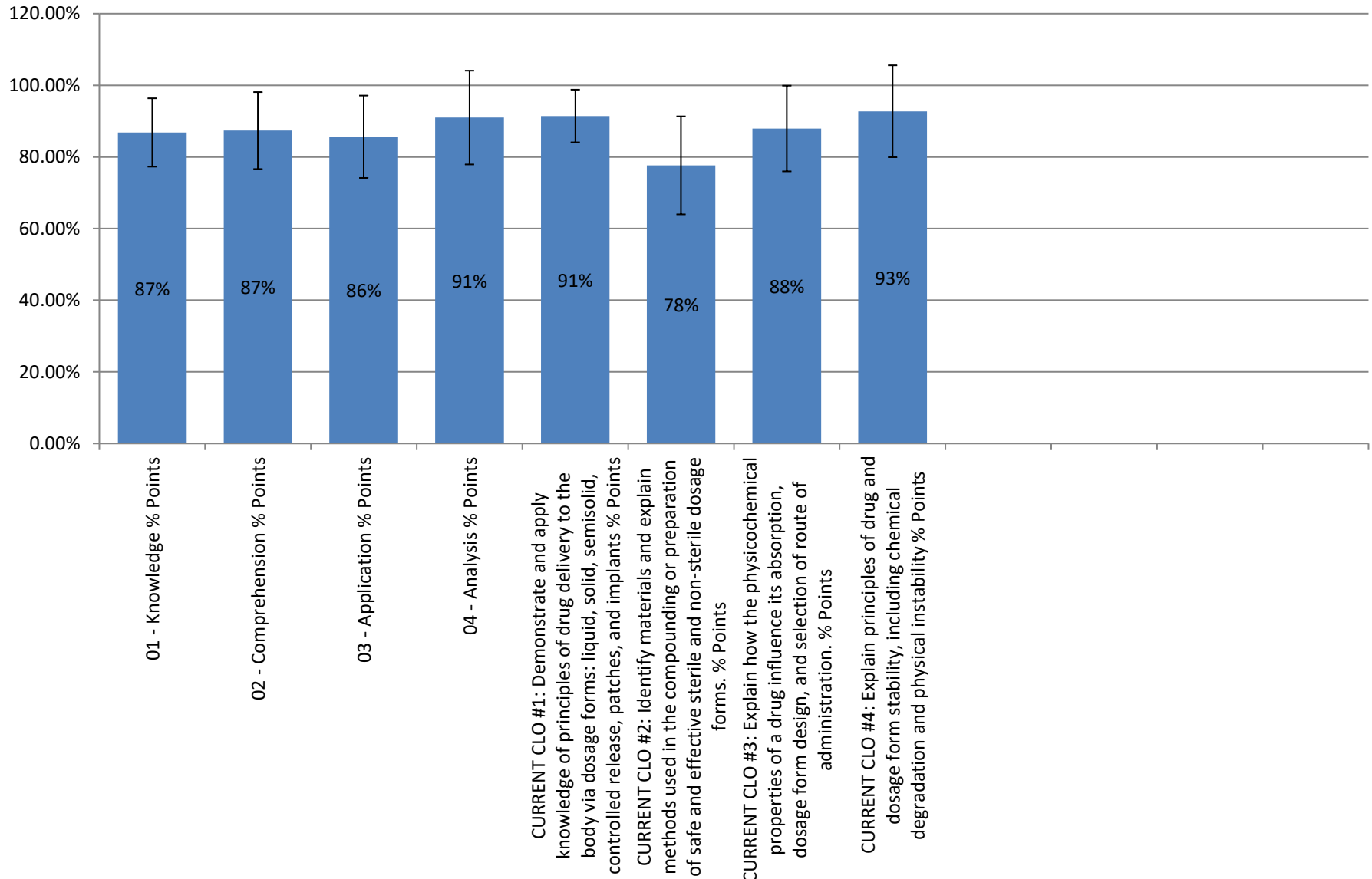
Brief Analysis: Assessment: The complexity of questions is well distributed and even included analysis type questions which are generally very difficult to develop for an exam-type setting. Likewise, the distribution of questions corresponding to the four CLOs appears to be adequate for the first three CLO but may want to consider increasing the number of questions assessing the fourth CLO. Student performance on the questions based on the four CLOs are fairly similar, except for CLO 3, where the student performance is relatively worse.

Name	01 - Knowledge % Points	02 - Comprehension % Points	03 - Application % Points	04 - Analysis % Points	CURRENT CLO #1: Demonstrate and apply knowledge of principles of drug delivery to the body via dosage forms: liquid, solid, semisolid, controlled release, patches, and implants % Points	CURRENT CLO #2: Identify materials and explain methods used in the compounding or preparation of safe and effective sterile and non-sterile dosage forms. % Points	CURRENT CLO #3: Explain how the physicochemical properties of a drug influence its absorption, dosage form design, and selection of route of administration. % Points	CURRENT CLO #4: Explain principles of drug and dosage form stability, including chemical degradation and physical instability % Points
	1	1	1	1	1	1	1	1
	15	16	14	5	20	15	11	5
MEAN	86.83%	87.36%	85.64%	90.99%	91.43%	77.66%	87.94%	92.75%
Standard Deviation	9.54%	10.74%	11.49%	13.09%	7.35%	13.68%	11.96%	12.83%
MEDIAN	86.67%	87.50%	85.71%	100.00%	95.00%	80.00%	90.91%	100.00%
MIN	61.67%	50.00%	50.00%	60.00%	70.00%	40.00%	45.45%	40.00%
MAX	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
25th Percentile	80.00%	81.25%	78.57%	80.00%	85.00%	66.67%	81.82%	80.00%
75th Percentile	93.33%	93.75%	92.86%	100.00%	95.00%	86.67%	100.00%	100.00%
Initial: <69%	6	5	7	8	0	25	6	6
% Initial	6.59%	5.49%	7.69%	8.79%	0.00%	27.47%	6.59%	6.59%
Developing or better : at or above 69%	85	86	84	83	91	66	85	85
Developing only: 69%-79.999%	93.41%	94.51%	92.31%	91.21%	100.00%	72.53%	93.41%	93.41%
% Developing	7	10	24	0	3	15	9	0
Developed or better: at or above 79%	7.69%	10.99%	26.37%	0.00%	3.30%	16.48%	9.89%	0.00%
% Developed or better	78	76	60	83	88	51	76	85
Developed only: 79%-89.999%	85.71%	83.52%	65.93%	91.21%	96.70%	56.04%	83.52%	93.41%
% Developed	37	35	18	25	23	32	21	20
Proficient: at or above 89%	40.66%	38.46%	19.78%	27.47%	25.27%	35.16%	23.08%	21.98%
% Proficient	41	41	42	58	65	19	55	65
Total number of students	45.05%	45.05%	46.15%	63.74%	71.43%	20.88%	60.44%	71.43%

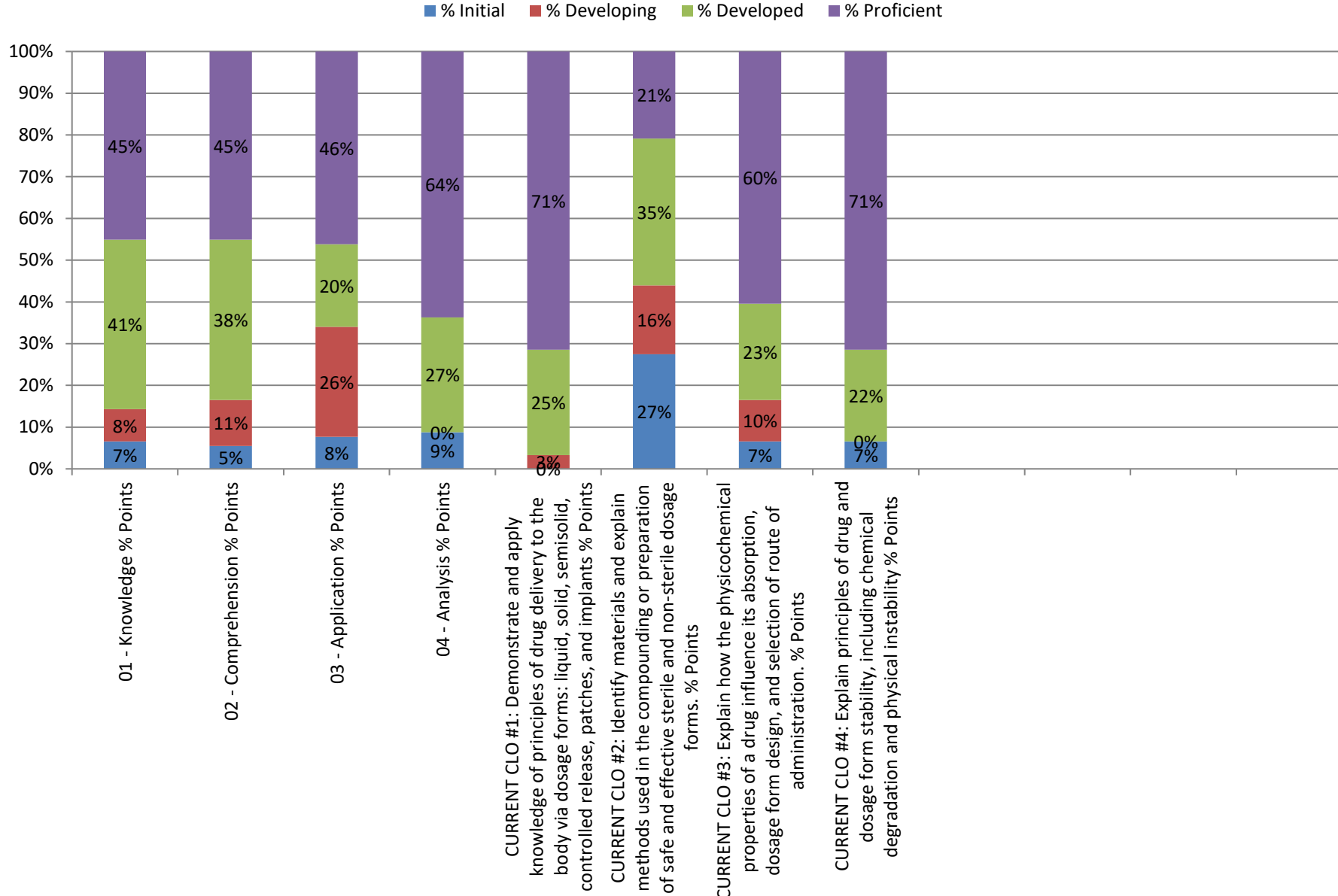
Number of Questions Assessing the Outcome



Mean Score by Category (with error bars representing standard deviation)



Proficiency Level Distribution by Category

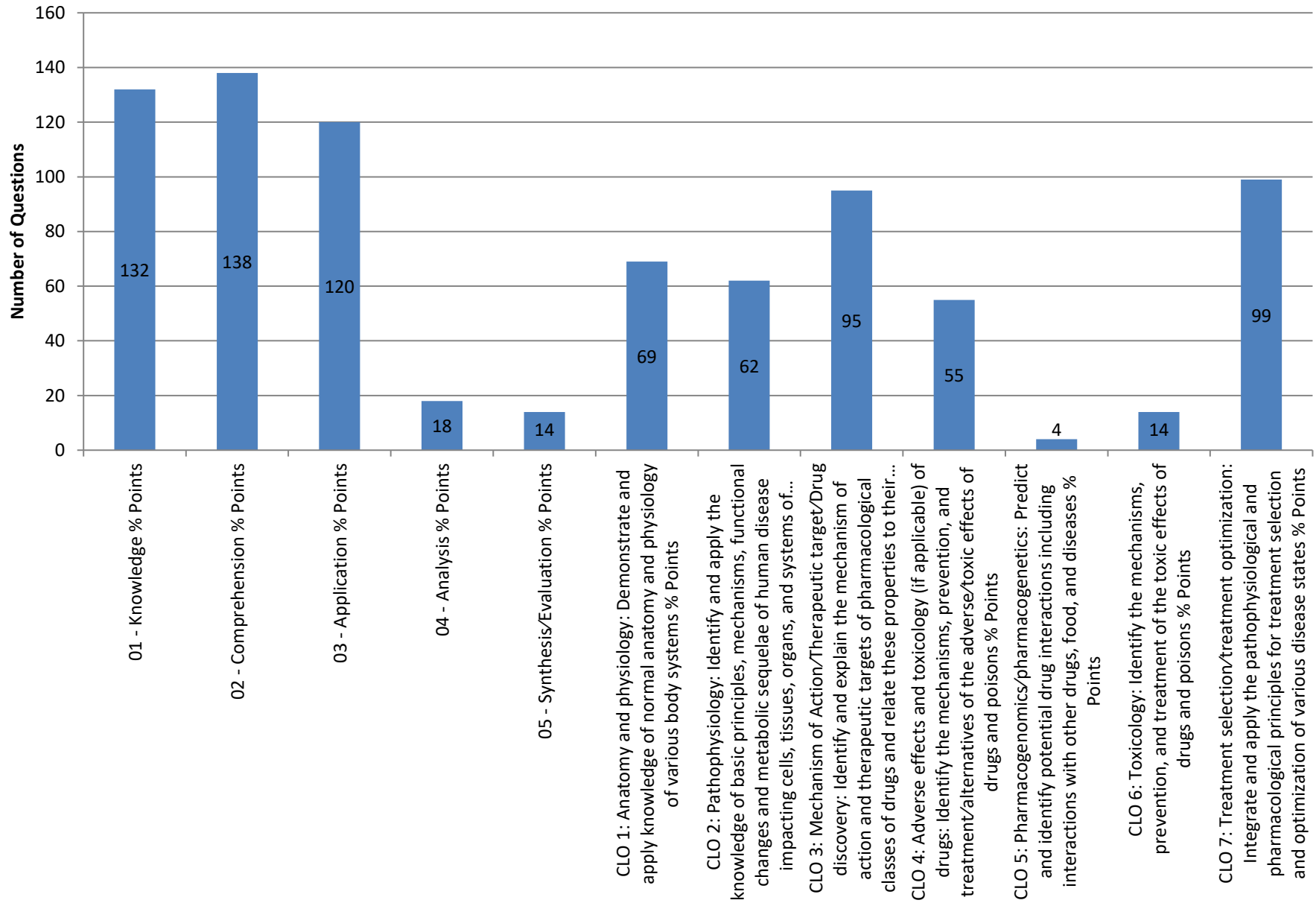


PBS 704 CLO Report

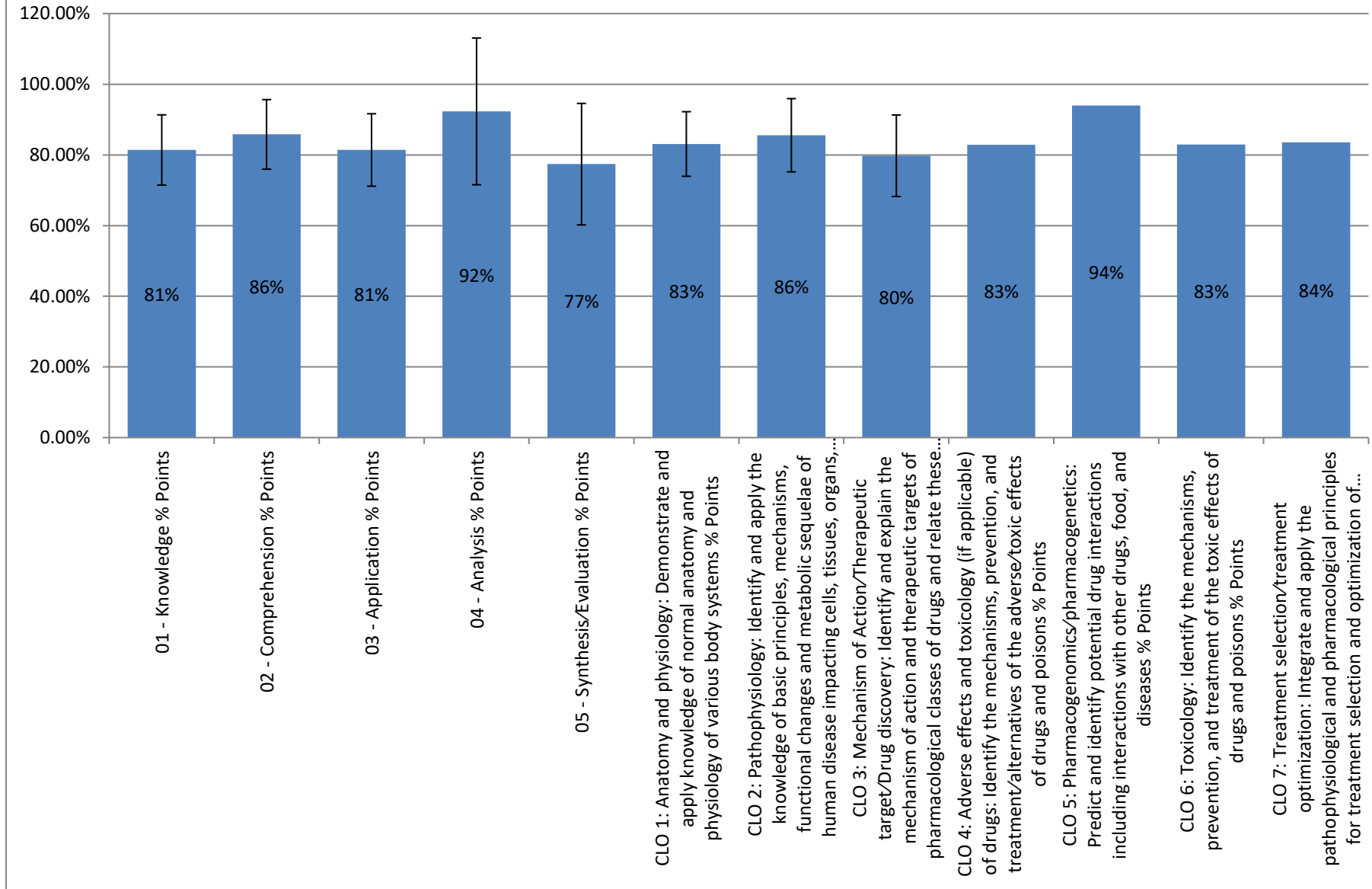
Brief Analysis: The distribution of questions based on Blooms is fairly well distributed with the plurality of questions being knowledge-based, comprehension and application questions, though there are quite a few questions consistent with higher level of complexity as well. Likes wise the number of questions assessing various CLOs is also well balanced, though the number of questions assessing CLO 5 and 6 is significantly fewer. I would consider increasing the number of questions assessing these two CLOs to get a better idea of the students' ability to achieve these learning objectives. Student proficiency in achieving all course learning objectives is likewise well balanced.

Name	01 - Knowledge % Points	02 - Comprehension % Points	03 - Application % Points	04 - Analysis % Points	05 - Synthesis/Evaluation % Points	CLO 1: Anatomy and physiology: Demonstrate and apply knowledge of normal anatomy and physiology of various body systems % Points	CLO 2: Pathophysiology: Identify and apply the knowledge of basic principles, mechanisms, functional changes and metabolic sequelae of human disease impacting cells, tissues, organs, and systems of various human diseases % Points	CLO 3: Mechanism of Action/Therapeutic target/Drug discovery: Identify and explain the mechanism of action and therapeutic targets of pharmacological classes of drugs and relate these properties to their clinical indications % Points	CLO 4: Adverse effects and toxicology (if applicable) of drugs: Identify the mechanisms, prevention, and treatment/alternatives of the adverse/toxic effects of drugs and poisons % Points	CLO 5: Pharmacogenomics/pharmacogenetics: Predict and identify potential drug interactions including interactions with other drugs, food, and diseases % Points	CLO 6: Toxicology: Identify the mechanisms, prevention, and treatment of the toxic effects of drugs and poisons % Points	CLO 7: Treatment selection/treatment optimization: Integrate and apply the pathophysiological and pharmacological principles for treatment selection and optimization of various disease states % Points
	8	8	8	6	6	8	8	8	8	4	4	8
	132	138	120	18	14	69	62	95	55	4	14	99
MEAN	81.40%	85.81%	81.40%	92.32%	77.39%	83.09%	85.56%	79.76%	82.88%	94.01%	82.93%	83.55%
Standard Deviation	9.94%	9.84%	10.25%	20.76%	17.19%	9.14%	10.37%	11.53%	12.68%	15.25%	17.08%	11.33%
MEDIAN	81.85%	86.81%	81.65%	100.00%	80.67%	81.85%	86.04%	81.75%	83.33%	100.00%	80.00%	84.41%
MIN	63.13%	65.22%	60.71%	42.86%	19.05%	63.77%	61.94%	49.14%	55.80%	50.00%	23.33%	63.98%
MAX	100.71%	104.86%	99.60%	114.29%	100.00%	100.40%	102.70%	100.00%	104.35%	100.00%	100.00%	104.30%
25th Percentile	73.30%	79.69%	73.41%	78.57%	66.67%	76.73%	78.16%	70.98%	73.19%	100.00%	74.58%	73.66%
75th Percentile	89.64%	93.96%	89.78%	108.63%	95.24%	90.41%	93.69%	87.58%	92.39%	100.00%	100.00%	91.74%
Initial: <69%	7	4	9	10	20	5	6	14	9	7	11	8
% Initial	10.94%	6.25%	14.06%	15.63%	31.25%	7.81%	9.38%	21.88%	14.06%	10.94%	17.19%	12.50%
Developing or better : at or above 69%	57	60	54	53	44	59	58	49	55	57	53	56
Developing only: 69%-79.999%	89.06%	93.75%	84.38%	82.81%	68.75%	92.19%	90.63%	76.56%	85.94%	89.06%	82.81%	87.50%
% Developing	23	14	16	7	11	19	12	13	16	0	6	16
Developed or better: at or above 79%	35.94%	21.88%	25.00%	10.94%	17.19%	29.69%	18.75%	20.31%	25.00%	0.00%	9.38%	25.00%
% Developed or better	34	46	38	46	33	40	46	36	39	57	47	40
Developed only: 79%-89.999%	53.13%	71.88%	59.38%	71.88%	51.56%	62.50%	71.88%	56.25%	60.94%	89.06%	73.44%	62.50%
% Developed	18	23	22	5	16	23	22	24	20	3	18	21
Proficient: at or above 89%	28.13%	35.94%	34.38%	7.81%	25.00%	35.94%	34.38%	37.50%	31.25%	4.69%	28.13%	32.81%
% Proficient	16	23	16	41	17	17	24	12	19	54	29	19
Total number of students	25.00%	35.94%	25.00%	64.06%	26.56%	26.56%	37.50%	18.75%	29.69%	84.38%	45.31%	29.69%

Number of Questions Assessing the Outcome



Mean Score by Category (with error bars representing standard deviation)



Proficiency Level Distribution by Category

