

Scheduling for Student Success White Paper and Charge

“In the end, the academic scheduling process should feel less like roulette and more like chess – based on strategy, resource management and sound decision-making.”

Tom Shaver, CEO, Ad Astra Information Systems

When students cannot register for the courses they need to earn their degree or transfer, their ability to complete is threatened (Complete College America, 2014). Nationally, 20% of community college students have reported that they were unable to get the classes they need for their degree (CCA, 2014). At Montgomery College, students who must balance their jobs, transportation, school and family priorities have expressed frustration about their inability to register for the courses they need.

Scheduling for Student Success

Effective scheduling fosters student success and completion for full and part-time students by scheduling at the intersection of demands of curriculum pathways and students' availability. The College's 78% retention rate for full-time students drops to 57% for part-time students. For part-time students with the capacity to take more courses, effective scheduling coupled with advising can make this possible. Traditional day and evening, face-to-face, semester-long classes will continue to meet the needs of and be preferred by some students. However, for a growing number of students, the path to completion is dependent upon, or may be accelerated by, clearly articulated alternative scheduling and delivery.

Currently, there are nine parts of term defining the blocks of time during which courses may be offered. There were 455 distinct meeting patterns and 118 start times for Fall 2016 and 405 distinct meeting patterns and 119 start times for Spring 2017. Although many programs can be completed in an evening format, students who need evening course offerings are not aware of this. They cannot find the pathway to completion in our current course offerings. There are software programs that use institutional data to create effective Collegewide scheduling to optimize students' access to critical resources – including outstanding faculty and essential facilities – and help students complete their programs efficiently. Comparisons of software packages, including their compatibility with existing College systems, could help address this issue. An optimal schedule will maximize flexibility and minimize confusion.

Scheduling Policy

Students need to be able to find the classes they need. A student-friendly schedule that eliminates inefficiencies and increases retention rates is an institutional priority.

Features of strategic scheduling include:

- high-demand courses at optimum times;
- two or three year rolling enrollment data used to predict demand;
- elimination (minimization) of class cancellations;
- multi-semester (multi-year) schedules (80%) posted for faculty and students;
- program requirements posted in the multi semester schedule are guaranteed to run;

- low-enrolled courses rotate by campus, semester, and time-of-day;
- limited number of standard start and end dates for terms;
- standard start and end times for classes;
- support for academic program advising;
- courses reflect appropriate campus balance;
- seat utilization rates average 85%.

Four-semester academic program plans are available online (Acalog). Links to six-semester program plans have been or will be developed to provide pathway information for the majority part-time students. These features provide students the opportunity to plan across multiple semesters and understand the significance of course success to program completion.

Course Cancellations

Faculty, staff, and students suffer when courses are cancelled (Caroll & Campbell, 2008). Faculty plan their classes, design their semesters, and prioritize their work based on their anticipated schedules. Last-minute course cancellations are disruptive, disappointing and stressful. Prior to the first day of class in Spring 2017, approximately 300 sections with 1,500 students – an average of 5 students per section – were cancelled.

Likewise, students plan their course selections, work hours, and transportation based on the classes they think they need and that were available when they registered. When classes are cancelled, students scramble to find replacement courses, often not the same courses selected previously; full-time faculty scramble to find other courses to teach; and part-time faculty often lose classes and a portion of their salaries. A goal of smart, strategic scheduling is to eliminate course cancellations by using predictive analytics to create a schedule that allows students to register for courses needed for completion. Scheduling courses at convenient times and methods of delivery that run with optimized seat utilization is a priority. Smart scheduling will support our access and retention mission – efficiently and effectively.

Seat Utilization

Low-enrolled classes are not sustainable. During the Fall 2015 semester, 100,463 seats were available/scheduled, yet 80,963 seats were filled. In Fall 2016, with a projected decrease in enrollment, 95,129 seats were scheduled, which was 14,166 more than filled the previous fall. This metric is already being used to inform scheduling decisions. Strategic scheduling ensures access and efficiency.

Coordination

Scheduling is currently the responsibility of the 36 department chairs working with campus schedulers. Coordination within and across campuses, and across Student and Academic Affairs Divisions, is critical to ensure that students are informed and able to take the recommended combination of courses no matter where they are on their academic path. All programs require courses in several disciplines, necessitating campus coordination. Some programs require students to attend classes on a specific campus, and the rotation of some classes requires inter-

campus coordination. A Collegewide scheduler with coordination and oversight responsibilities is one way to address this critical issue.

Data-driven academic scheduling is an institutional priority, as expressed in the Academic Master Plan 2016-2021, which calls for “intentional decisions to vary our terms, class times, pathway options, and delivery methods” to facilitate completion and better serve our students.

Benchmarks

The first task of the scheduling work group will be to research and use institutional data to identify conflicts, bottlenecks, and other scheduling issues that impact student completion; and establish benchmarks, a timeline, and an implementation plan. Suggested benchmarks may include, but are not limited to:

- Reduce the number of start times and meeting patterns by 25%
- Achieve 85% average seat utilization at 3 weeks
- Reduce the number of cancelled sections to no more than 3% of sections originally scheduled
- Reduce number of parts of term by at least 25%
- Build a desired course schedule that supports full and part-time students’ programs
- Recommend scheduling software for purchase and use
- Actively market and increase enrollment in evening and weekend programs
- Identify students with capacity to take additional courses (i.e. those at 12-credit hours per semester)

Charge

The Academic Master Plan Initiative 2 work group will recommend actions to the senior vice presidents of academic affairs and student affairs to effect alternative scheduling and delivery and guidelines for efficient and effective scheduling that enhance student retention and completion rates and are financially sustainable. This multi-year effort will be based on a data-driven audit of existing practices and informed by best practices. Implementation will parallel approval/acceptance of recommendations.

Tasks include but are not limited to:

- Offer one entire degree program on each campus in each unit with non-traditional (evening/weekend) scheduling
- Reduce the number of parts of term
 - Standardize year-round terms (flex terms) (7-week, 14-week, etc.)
- Market courses and degrees (programs) built around flex-term scheduling
- Define and standardize metrics and benchmarks for assessment of scheduling practices
- Investigate and recommend schedule-building software/consulting firm
- Develop multi-year schedules for 20 programs with highest enrollment
- Establish collegewide scheduling protocol

References

Carroll, J. & Campell, L. (Spr 2008). Guaranteeing the course schedule. *Community College Enterprise*, 14 (1), 25-29.

Complete College America. (2014). *Make college more affordable: Restore the promise of graduating on time*. Retrieved from <http://completecollege.org/wp-content/uploads/2014/11/4-Year-Myth.pdf>