

Building Great Secondary Schedules

A Step-by-Step Guide



District Management Group
Helping Schools and Students Thrive

Best Practices for Secondary Schedules and Schedule-Building

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1. All struggling students have access to extra-time intervention in Math, ELA, and Reading that is built into the schedule
2. All students have access to rigorous learning opportunities
3. Low enrollment courses are well managed
4. Clear class size guidelines are in place and general education teachers are precisely staffed to enrollment
5. Part time and shared staff are used to offer added electives and interventions
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Elements of a Great Secondary Schedule

All struggling students have access to extra-time intervention in Math, ELA, and Reading that is built into the schedule

Best practice for secondary intervention is a “double time” model that involves providing “extra help” in addition to core instruction. In the sample student schedule below, the grade level Math course would be an opportunity for the student to receive a first presentation of grade level content and learn from peer questions.

RECOMMENDED STRUGGLING STUDENT SCHEDULE

| | Non-Struggling Student Schedule | Struggling Math Student Schedule | |
|----------|---------------------------------|----------------------------------|---|
| Period 1 | Math | Math | <ul style="list-style-type: none"> • First presentation of content • 100% current year material • Learn from peer questions |
| Period 2 | ELA | ELA | |
| Period 3 | Elective | Elective | <ul style="list-style-type: none"> • Pre-teach content • Re-teach current year and prior year content • Address missing foundational skills • Un-teach misconceptions • Deliver specially designed instruction |
| Period 4 | Social Studies | Social Studies | |
| Period 5 | Science | Science | |
| Period 6 | Spanish | Extra Math Support | |

During extra support classes struggling students work with a content expert. There are a few options for how extra help can be provided at the secondary level. Above all, it is important that the most struggling students are paired with teachers with the highest levels of content expertise.

MODELS FOR PROVIDING EXTRA TIME

| | |
|--------------------------------|--|
| Traditional Double Dose | Students who struggle in either Reading, ELA, or Math receive an entire extra period of the subject from a handpicked teacher with a proven track record of student success |
| Double Dose Cohort | Students who struggle in either Reading, ELA, or Math receive an entire extra period of the subject from a handpicked teacher who is with the same cohort of students for 9th and 10th grade |
| MATCH Tutoring | Students who struggle in either Reading, ELA, or Math receive intensive small group or one-one-one tutoring for an entire period from highly skilled and trained tutors |
| Double Dose for All | All students receive a second period of either reading, ELA, or Math; this second period is embedded within the master schedule |

Intervention supports at the secondary level often focus on English or Math, however Reading skills are very different and require a different intervention. Struggling secondary readers need:

- Reading instruction that is separate from ELA instruction
- At least 60 minutes a day of additional reading instruction
- Explicit teaching of strategies for comprehension
- Highly skilled and effective teachers of reading



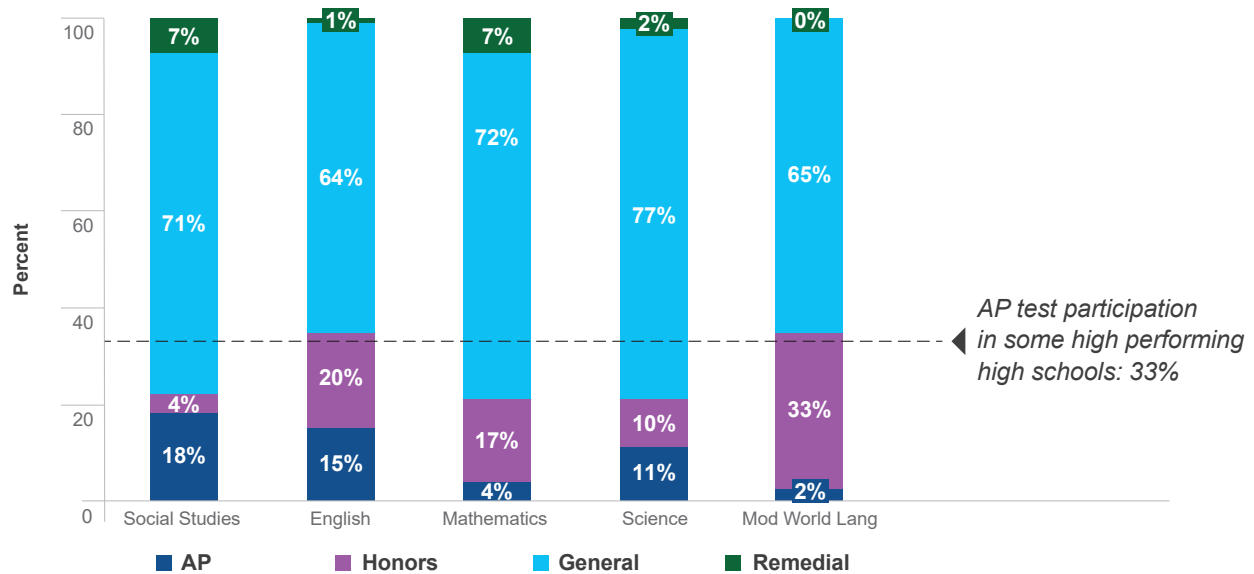
All students have access to rigorous learning opportunities

Course and elective offerings should be determined by student need and school priorities, not by history. In many school systems, a student’s access to rigorous learning opportunities is not determined by the student’s abilities, but by which courses have been offered in the past.

In order to ensure that all students have access to rigorous learning opportunities, schools can undertake a rigor analysis to understand the distribution of offerings at each school. Highlighting the distribution of offerings can help highlight gaps and drive the discussion of revising the course catalog and refining course offerings.

For example, in the chart for a sample school below, the rigorous offerings in the Social Studies and English departments far outpaced those of the Math and Science departments. By highlighting these differences, school leaders were able to make shifts to offer more rigorous Math and Science courses.

STUDENT PARTICIPATION IN RIGOROUS COURSES



3

Low enrollment courses are well managed

Analyzing courses with low enrollment can help identify opportunities to potentially free up resources. Based on your minimum enrollment thresholds, identify if there are any single-section courses that fall below this threshold.

In order to manage low enrollment courses, scheduling teams can take three key approaches:

- **Merge similar courses:** This approach is often used for World Language courses, where it is often possible to offer multiple levels of a course (e.g., French III and French IV) as a single class
- **Offer low-enrollment courses on a rotating basis:** Some schools will offer some courses once a year in a given semester to maximize the number of students taking the course at one time
- **Set minimum enrollment thresholds:** Some schools will establish a minimum threshold of enrollment for a course as a pre-requisite for offering that course.

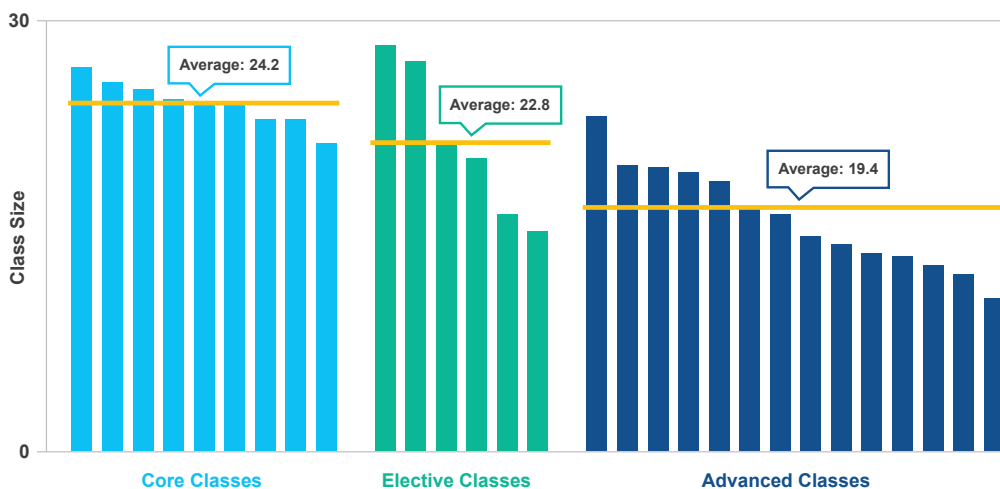
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Clear class size guidelines are in place and general education teachers are precisely staffed to enrollment

There are two factors that determine how well a schedule maximizes teacher time and student learning opportunities: class size and teacher utilization.

Core classes often have the largest class size, with unintentional investment in small class sizes for electives and advanced classes. In the example below, the district’s investment of teacher time in advanced courses led to larger core class sizes than intended.

CLASS SIZES: AN INVESTMENT OF TEACHER TIME



By using current guidelines for class size and teaching load, it is possible to determine the FTE needs for each department, subject, and school. As you can see in the example below, determining the number of sections needed in each course in a department drives the amount of staff time needed to teach the course.

DETERMINING STAFF NEEDED

STEP 1

Class-size guideline:
Target class size of 25

Determine the number of sections needed

| Course | Current enrollment | Target class size | Sections needed |
|------------------------------|--------------------|-------------------|-----------------|
| Algebra 1 | 300 | 25 | 12 |
| Algebra 1 honors | 50 | 25 | |
| Algebra lab | 50 | 20 | |
| Geometry | 320 | 25 | 13 |
| Geometry honors | 80 | 25 | |
| Statistics | 15 | 25 | |
| AP calculus | 32 | 25 | |
| Total Sections Needed | | | 37 |

STEP 2

Teaching load guideline:
5 sections per FTE

Determine FTE needed

| Staffing Calculation | |
|----------------------|------------|
| Sections needed | 37 |
| Sections per FTE | 5 |
| FTE needed | 7.4 |

5

Part time and shared staff are used to offer added electives and interventions

Expert schedulers look for opportunities to maximize the impact of all staff even when only partial FTE are available for repurposing. There are three key strategies to manage partial FTE:

- **Provide intervention or new strategic offerings**
 - Replace a reduced section of an existing course with an intervention section or a new elective aligned with the school's strategic direction.
- **Consider part-time staff**
 - Part-time positions can provide needed work/life flexibility to teachers.
- **Consider shared staff**
 - Sharing staff across secondary schools is the norm in some districts.

6

Student time in study halls is minimized

Minimizing student time in study halls helps to ensure that schools are making the most of every instructional minute, as well as offering a broad range of instructional opportunities to students. Many successful schools strive to increase student electives participation and minimize study hall participation.

7

Certified staff time spent on duties is minimized

Minimizing staff time spent on instruction duties helps to ensure that schools are making the most of every potential minute of teacher instruction. Successful schools will look to where duties can be eliminated or performed by non-certified staff.

Secondary Schedule Self-Assessment

Rate your level of implementation of each of the secondary scheduling best practices below. For each best practice, please indicate whether it is present in your master schedule: every day, a few days a week, or not at all.

| Practice | To what extent is each practice present in your master schedule? | | |
|---|--|-----------------|------------|
| | Every Day | Few Days a Week | Not at all |
| All struggling students have access to daily extra-time intervention that is built into the schedule | | | |
| • Intervention is scheduled as a separate course or as a designated time | | | |
| • Intervention courses are credit bearing | | | |
| • Interventions are provided by highly skilled teachers with deep content knowledge | | | |
| All students have access to rigorous learning opportunities | | | |
| • Clear entrance criteria into rigorous courses is in place | | | |
| • All departments offer high levels of access to rigorous courses | | | |
| All students have access to equitable course offerings and learning opportunities | | | |
| • Course and elective offerings are equitable across schools | | | |
| • The rigor of course offerings is equitable across schools | | | |
| Low enrollment courses are well managed | | | |
| • A district-wide protocol is in place to identify and manage low enrollment courses | | | |
| • Low enrollment courses are managed consistently across all schools in the district | | | |
| • Less than 5 percent of courses are low enrollment courses | | | |
| Class size guidelines and staffing to enrollment | | | |
| • Clear class size guidelines are in place and general education teachers are precisely staffed to enrollment | | | |
| Utilizing part-time and shared staff | | | |
| • Partial FTE are managed through staff sharing or part time positions | | | |

Elements of a Great Scheduling Process

A strong, clear scheduling process with many opportunities for staff feedback is essential to building a strong master schedule. Having a clear scheduling process in place that incorporates staff feedback increases staff buy-in, reduces scheduling headaches, and positively impacts school culture.



1 Have a clear set of priorities

Determining a clear set of priorities can help guide the scheduling process and ensure that the most important priorities are achieved. Sample scheduling priorities can include:

- All struggling students have access to extra time every day
- Every student has access to an AP course by the time they graduate
- Every student has access to a foreign language for four years

2

Have access to timely and accurate data

Because many factors influence master building schedules, it is important to have access to timely and accurate data. Important data for building a schedule includes:

- All struggling students have access to extra time every day
- Every student has access to an AP course by the time they graduate
- Every student has access to a foreign language for four years

3

Schedule as a team sport

Master building schedules are highly interconnected and deeply impact the schedules of multiple staff members. When building schedules, it is important to keep this interconnected web in mind. Building schedules as a team sport can help align these schedules and ensure that they meet the needs of all students and staff. To do this, schools assemble school-based teams to share goals and instructional guidelines. Principals then work with these school-based teams to develop schedules, explore trade-offs, and make adjustments to schedules.

Scheduling as a team sport has many benefits, including:

- Shared understanding of goals
- Improve focus on schedules driven by student need
- Leverage expertise of teachers and staff
- Address school needs and constraints
- Improve schedule efficiency

When scheduling as a team, there are three key teams that principals work with

- Other principals with whom they share staff (District-level)
- Homeroom Teachers (School-level)
- Special Education Teachers, Related Services Staff, etc (School-level)

4

Utilize scheduling expertise

Scheduling is a skill that some are better at than others. When building your scheduling team, it is important to recognize who on or outside your team has scheduling expertise and utilize their skills.

Scheduling Process Self-Assessment

Rate your level of implementation of each of the secondary scheduling process best practices below. For each best practice, please indicate whether it is fully implemented, partially implemented or not implemented.

| Practice | To what extent has each practice been implemented in your scheduling process? | | |
|---|---|-----------------------|-----------------|
| | Fully Implemented | Partially Implemented | Not Implemented |
| Clear priorities are in place | | | |
| • Clear list of district-level scheduling priorities is in place | | | |
| • Clear list of school-level scheduling priorities is in place | | | |
| Data is accurate and available in time to build the schedule | | | |
| • Student course request data is available early enough to be used in the schedule building process | | | |
| • Student testing data is available early enough to be used to determine the number of sections of intervention courses that will be needed | | | |
| Scheduling as a team sport | | | |
| • Principals who share staff work together to maximize staff time and minimize travel | | | |
| Scheduling expertise is utilized | | | |
| • The scheduling process includes staff with scheduling expertise, both inside and outside the building | | | |

Step-by-Step Scheduling Guide

1. Determine who is on your scheduling team

Before building your schedule, it's important to gather your scheduling team. When choosing your team, it is important to consider the following key questions:

- Who builds the schedule?
 - Who provides feedback and support?
-

2. Define scheduling goals

Every school schedule is the means to achieving the school's educational goals. Once your team has been gathered, determine what your scheduling goals are. Potential goals could include:

- All students who are struggling readers have access to daily intervention with a content expert
 - Student participation in rigorous courses is maximized
-

3. Set priorities and non-negotiables

After your team has determined what they hope the schedule achieves, it is important to prioritize the most important goals. This will help your team make tough decisions about scheduling tradeoffs when you build the schedule. It is helpful to make short list of specific top priorities.

Based on these priorities, your team will then decide what must be present in the schedule, or a "non-negotiable."

4. Determine which courses you want to offer

Based on graduation requirements, student course request data, and teacher interest determine which courses you would like to offer. In order to meet the needs of your students and staff, it is important to carefully reconsider which courses are offered each year.

5. Determine target, minimum and maximum class sizes for courses

Use any district guidelines as your foundation for this conversation. Within those guidelines, determine:

- What should be the average class size of most courses? Should it vary by department?
- What is the minimum class size for a course to run?
- What is the maximum class size that a course can be?
- Are there any courses that would benefit from a larger class size (PE, band, etc)?
- Are there any courses for which we would like to prioritize small class sizes (intervention)?
- Which courses are we comfortable raising classes sizes for so that we can get small class sizes for priority courses?

6. Based on course request data, testing data, and class size targets, minimums, and maximums, determine how many sections of each course will be needed

For each course, divide the projected number of enrolled students by the target class size to determine the number of sections that you need. For courses that will have fractional sections needed, like 3.4, use your class size minimum and maximum thresholds to determine whether to round down or up.

As you can see in the example below, determining the number of sections needed in each course in a department will let you know the total number of sections that a department should offer.

Example: Determining the Number of Math Sections Needed

Class-size guideline:

Target class size of 25

Determine the number of sections needed

| Course | Current enrollment | Target class size | Sections needed |
|------------------------------|--------------------|-------------------|-----------------|
| Algebra 1 | 300 | 25 | 12 |
| Algebra 1 honors | 50 | 25 | |
| Algebra lab | 50 | 20 | |
| Geometry | 320 | 25 | 13 |
| Geometry honors | 80 | 25 | |
| Statistics | 15 | 25 | |
| AP calculus | 32 | 25 | |
| Total Sections Needed | | | 37 |

7. Compare the sections of courses needed to current staffing levels

Dividing the number of sections a department needs to offer by the number of sections that a teacher can teach will tell you how many FTE is needed in each department.

Example: FTE Needed in Sample Math Department

STEP 1

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Target class size of 25

Determine the number of sections needed

| Course | Current enrollment | Target class size | Sections needed |
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STEP 2

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Determine FTE needed

| Staffing Calculation | |
|----------------------|------------|
| Sections needed | 37 |
| Sections per FTE | 5 |
| FTE needed | 7.4 |

8. Determine how to adjust resources

Often, the number of FTE needed does not align perfectly with the number of staff that you plan to have for next year.

If there is additional staff time available in a department, figure out how to redeploy staff time. Potential uses of extra staff time could include:

- If there is extra Math, English, or Reading teacher time available – offering additional interventions
- If there is other additional teacher time available, offering elective or volunteer opportunities to students
- Consider sharing additional teacher time with other schools to increase course offerings to students district-wide

If there is a need for more staff time in a department, consider adjusting class sizes to reduce the number of sections needed or sharing key personnel across other schools to increase their reach.

9. Review low enrollment, single section courses

For all of the single section courses that fall below your minimum class size threshold consider:

- Should this course be offered in tandem with another course (ie. Latin 1 & Latin 2)?
- Should this course be rotated and only offered next semester?
- Should this course be offered online?
- Should this course be offered as an independent study opportunity?

10. Use scheduling software to generate student and staff schedules

Frequently Asked Questions

1. How do I find time to offer interventions?

Best practice is to build interventions into the schedule as additional, credit bearing courses for students. For students, this often means that they will take this course in place of an elective.

For teachers, time can be found by undertaking a careful analysis of the number of sections that need to be offered in each department. Often this analysis will reveal that teacher time can be freed up by reallocating duties or slightly raising non-intervention class sizes.

2. I want to offer a wide variety of courses, some classes only appeal to a few students. How do I minimize low enrollment courses while still giving students choice?

Finding a balance between minimizing low enrollment, single section courses and offering a wide variety of courses can be tough. There are several strategies that principals can pursue to strike this balance:

- Setting thresholds for minimum enrollment
- Offering similar courses together
- Rotating courses and offering them every other semester or every other year
- Offering courses online
- Offering courses as independent study classes
- Offering courses in a partnership with local college and universities (or other school in the district or a neighboring district)

3. How do I know if I have the right number and mix of teachers?

Best practice schools and schedules respond to student needs and demand for courses. Each year, it is important to calculate the number of sections of each course required based on student course requests. From there, you can compare the number of sections demanded to the amount and mix of teachers that you have. Over time, you can build a plan to shift the mix and number of teachers to be responsive to student needs. For example, if students are demanding greater numbers of computer science courses, you can train a teacher to teach those courses or hire a new one.

4. I want to change my schedule structure. What's the best one?

There is no “best” schedule structure. Any change to schedule structures requires careful planning, consideration, and ample professional development to help teachers adjust. Before embarking on any changes to your schedule structure, it is important to plan out how to make these changes with minimal instructional impact.

If you do decide to change your structure, here are a few simple steps that may help get started and comparing possible models:

1. Determine the smallest period of time used in the school day. This is often lunch or an advisory period of 25 – 35 minutes
2. Determine how many modules fit in your school day (this may require slightly adjusting that smallest period to get a to a round number)
3. Create periods using multiples of the smallest period, for example if lunch is 30m, you can create 60m or 90 minute periods.
4. Create a grid with all your grades and place your lunch, specials/teacher planning, electives, or intervention blocks that need to be staggered by grade. The rest of the modules are assigned to core subjects.
5. Decide whether you want 4 core blocks of equal size for ELA, math, science, and social studies, or if you would like double periods of ELA and math. There are many possible combinations including creating 3 core blocks where the 4 subjects rotate by day.