Scheduling classes at Penn State Berks, like in all colleges, is a long and involved process. In the IST/SRA program, class scheduling starts about 6 months before a semester. The IST program coordinator emails the full time faculty members to learn about their teaching preferences. The faculty members enters their teaching preferences into an Excel worksheet and emails back it to the program coordinator who consolidates them into a single Excel file. The regular teaching load is 9 credits/semester for tenure track faculty and 12 credits/semester for fixed-term faculty members. However, faculty members may have other responsibilities that can reduce their teaching load. Therefore, the courses and number of sections that a faculty member teaches may vary over semesters although a stable course-to-faculty assignment is desired by the faculty members and the program.

* Focuses on teacher workload
* Regular workload 9 Credits/semester for tenure track
* 12 Credits/semester for fixed-term faculty
* Variables lightening the workload of teachers so can be more or less than 9 or 12

After receiving all faculty preferences, the program coordinator attempts to make a decision about the courses and their number of sections to offer for the semester. The program must offer at least one section of the courses listed in the recommended academic roadmap (review the academic roadmaps of the IST/SRA options). The program coordinator’s first priority is to ensure that all mandatory courses are offered according to the Recommended Academic plan. For example, IST 210 is planned in Semester 2 of the IST program; and therefore, at least one section of IST 210 must be open in the Spring semester. The second priority is ensure that the courses required to declare a major should be available in both semester. In addition, the program coordinator should make sure that majority of students can find available seating in the program courses. This goal can be achieved by opening multiple sections of courses and assigning popular courses to larger classrooms etc.

* Focuses on what courses to offer and their sections
* **Priority: At least one section of the courses listed on the academic roadmap**
* **Priority: All mandatory courses are offered according to academic roadmap**
* **Second Priority: courses required to declare a major is offered both semesters**
* Majority of students should be able to find a spot in a schedule course. i.e. if too many students register for a section of a course, then decide whether or not to increase the number of sections or assign the section into a larger classroom to accommodate for more students. This can be a tough situation considering IST/SRA classes should be in a computer lab.

Deciding the number of the sections of a course is not a straightforward decision. The university requires minimum of 12 students in each section. If less than 12 students enrolled to a course section, the section may be closed unless it is mandatory to offer the course in that semester. If a section is already full, it is not easy to open an additional section at the beginning of the semester due to limited availability of faculty and classrooms. Therefore, the program coordinator must predict what courses should be opened, their number of sections, and capacities. This prediction can be done by looking the previous years’ enrollments and the enrollment of the perquisite courses (i.e., IST 110 enrollment can be used to predict IST 210 enrollment), etc. The program coordinator can collect such data from the e-lion system one course at a time, which is a meticulous and timely process.

* Focuses on the requirements for a section of a course.
* **Minimum: 12 students per section or section will be closed.**
* **Exception for >12: Course is mandatory to offer.**
* Can’t just open a new section if one is full due to limited faculty and classrooms. Number of sections open must be predicted by the coordinator based on data from classes for previous years.

After deciding which courses to offer and their number of sections, the program coordinator must find a faculty member for each section. For this, the program coordinator refers to the faculty teaching preferences (the Excel file). If multiple faculty would like to teach a course, then the faculty members negotiate. In some cases, the program coordinator may not find a full-time faculty member to teach a course. In such cases, the program coordinator informs the division head and a formal search is initiated to hire a part-time faculty. The coordination of part-time faculty is the responsibility of the part-time faculty coordinator. The part-time faculty coordinator initiates the search process (i.e., advertisement of the position, collecting resumes, and calling prospective candidates etc.) The part-time faculty coordinator also keeps a file of part-time instructors who had previously taught classes at Penn State. A course section may still be listed in the e-lion system without an instructor even though a faculty cannot be assigned to it before the course schedule is made public.

* Focuses on faculty and staff for each section.
* Each Faculty member emails their preferred teaching schedule (Classes, days/times, etc.) to the program coordinator. If multiple faculty want to teach a course then it is up to the teachers to figure out what to teach.
* Part-time faculty can also be hired. Part-time faculty coordinator will search for part-time faculty to fill in course positions. They also keep track of all part-time faculty that has taught at Penn State.



After deciding the sections to open, the next phase is to schedule the sections. Class scheduling involves with assigning sections to the time slots and determining appropriate classrooms for them. Figure 2 shows the available time slots.

* The class scheduling is the responsibility of the campus registrar. Currently, the campus registrar uses a whiteboard to determine class schedules and class assignments. The registrar follows the following rules while scheduling classes.
* Required courses for the program cannot be scheduled in the same time slot. For example, IST 110 and IST 140 are required in the first semester of the IST degree. Therefore, they cannot be assigned in the time slot and their schedule cannot overlap.
* A three-credit and four-credit classes should not be scheduled in consecutive time slots before 4pm to minimize schedule conflicts and increase the utilizations of time slots. Three or four hour block classes can be schedule after 4pm. A 3-credit class is usually scheduled in a 50 min slot on Monday, Wednesday, and Friday or in 90 min slot in Tuesday and Thursday.
* Some classes can be assigned only to specific classrooms. Course instructors must specify the requirements for their classes. For example, IST 452 can taught only in G 206 due to its software requirements. The registrar must keep track the specific requirement of each course.
* Mondays, Wednesday, and Tuesdays 1pm to 2:30pm are dedicated as common hours so no class can be scheduled.
* Some of the program courses must have a night session at least once a year.
* While doing the course schedules, the registrar tries to accommodate faculty preferences as much as possible.
* Web courses may or may not require a specific time slot depending on the instructor preferences. Web courses also do not need a classroom assignment.
* Hybrid courses usually have less face-to-face class time (1/3, ½, or 2/3 of their credit hours) depending on the preference of the instructor. Hybrid courses require classroom assignment only for the face-to-face meetings.
* Focuses on times for classes making sure that certain conditions are met.
* Two courses cannot be schedule in the same time slot.
* 3-credit and 4-credit classes should not be assigned in consecutive time slots.
* Certain classes can only take place in certain classrooms because of equipment/material necessary for the class.
* Mondays, Tuesdays, and Wednesdays From 12-1pm no classes (common hour)
* Some courses must have night classes at least once a year
* Faculty preferences will be taken into account as best as possible.
* Web courses don’t necessarily require a time slot and don’t need a class room
* Hybrid courses require less in class time than normal classes.

After the registrar completes a draft schedule, the department head checks the draft schedule to make sure that the faculty members satisfy their minimum course requirements and also do not teach more course than they can handle. Finally, the registrar sends a hard copy of the draft schedule to each faculty member for a final check. In two weeks, the faculty member sends their corrections to the registrar usually by email. It is very common that the draft schedule includes many mistakes. Faculty members email the registrar office with their corrections. The registrar can change the schedule any time during the semester; however, when the students start enrolling classes, the schedule change is almost impossible.

* A draft is made and sent all faculty, so all faculty can make corrections and adjustments to the schedule of classes and is sent back for final revisions.

Finally, the academic dean approves the schedule and the schedule is made available to students.