

Enterprise Level Scheduling System Implementation Report

FALL 2018

ARC ENTERPRISE LEVEL SCHEDULING
SYSTEM TASK GROUP



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Executive Summary

The Ad Astra implementation undertaken by the ELSS committee has been a complicated blend of navigating district politics, constituent interests, technological limitations, and system identification and development. This report attempts to capture what has been done and what still needs to be done in the implementation of this product. In particular, an attempt has been made to identify:

- The **Decisions** that have been made as the system was configured with an explanation of *why* the particular decision was made and links to data supporting that decision.
- The **Next Steps** that have been identified as the system has been configured. This is either further work which needs to be performed to continue processes which have already begun or are recommendations on parts of the process that have yet to be started.
- The **Business Practices** which have been identified as necessary to keep the software functioning as well as procedures which need to be put in place for a robust enrollment management process at ARC.

Decisions Made:

 **DECISION 1:** District made the decision to move forward with four separate instances of the Astra Platinum Analytics system and a single instance of the Astra Schedule system. This decision to have a single instance of Ad Astra Schedule reversed mid-October of 2018 as the four colleges began to find the combined single instance of Astra Schedule to be unwieldy and there were major issues with the system being able to accommodate our centers (it simply saw a center as another building on the main campus and would move courses between main campus and center facilities without understanding that they existed in separate locations). The decision was made to go back to *five* instances of the Schedule system (one for each campus and one for district). (Page 8)

DECISION 2: ARC submitted an initial inventory of 595 rooms to Ad Astra for inclusion into their system. (Page 9)

DECISION 3: When decision was made to separate the system into four distinct campuses, we were then given an opportunity to clean up which location codes that Ad Astra would be importing. In PeopleSoft ARC had over seventeen separate location codes (many of which were separate versions of Safety Center offerings). The decision was made to reduce this number to five centers to be linked to Ad Astra:

- ARC Main
- Natomas
- McClellan
- Mather
- ARC Off Campus (Page 9)

DECISION 4: The decision was made to prioritize cleaning up the room inventory to ensure that all instructional spaces were correctly linked between PeopleSoft and Ad Astra. An attempt was also made to add in meeting spaces, faculty offices, and study/tutoring spaces. Faculty offices were entered into the system in order to present the future option of using Ad Astra to record office hours and the study rooms and the tutoring rooms were added in for the potential of tracking usage and future ability to set up systems by which students or tutors could dynamically reserve rooms. (Page 10)

DECISION 5: The Room Types agreed to by the district match up to the official state inventory guidelines, Per the recommendations of our vendor, the district ELSS committee also

sought to limit the number of room type designations in order to allow for differentiation of the spaces without getting too granular into the different room types. (Page 11)

DECISION 6: The Facility Layout options are configured through the Master List interface in the Ad Astra Schedule Settings dialog—we can add additional types as ARC deems them necessary. When searching for available rooms, a user may use the facility layout as a field to filter available rooms by. These configurations will be especially important for rooms that are primarily used for events and are often able to be configured in different ways for different types of events (e.g. the community rooms). (Page 11)

DECISION 7: The *Capacity* of the room is how many seats/stations there are for students within the room. This was determined through two methods: a physical count of desks/chairs within a room and a historical evaluation of class sizes taught in each room since Fall 2014 (See bit.ly/2Tib3FD for the analysis). (Page 12)

DECISION 8: Working with the vendor, we identified room features that could be used to help determine the appropriateness of placing a section into a classroom. In order to do identify the appropriate features, first a set of Room Feature Categories were defined. (Page 12)

DECISION 9: In performing our room inventory and working with the vendor, room features were identified for ARC rooms within Ad Astra. (Page 13)

DECISION 10: Our initial room regions were relatively simplistic (e.g. “Davies First Floor” which included all of the classrooms in the first floor of Davies Hall). These initial Room Regions were geographical or to group rooms together in regions of the campus. (Page 15)

DECISION 11: Utilizing the approved criteria and with a historical evaluation of scheduling patterns a list of 78 rooms were identified as needing to be excluded from being generally available to be scheduled. See Appendix 2: Excluded Rooms on Page 42 for these excluded rooms. (Page 19)

DECISION 12: The most common blocks that have been traditionally used at ARC were identified in Ad Astra as ARC’s standard Course Blocks. (Page 23)

DECISION 13: The initial set of rules were set up through a historical analysis of how sections have been scheduled and through discussions with deans and division office staff—the intention was to create the preliminary list of rules as a start for the further refinement of the rules through broader conversations with departments. (Page 25)

DECISION 14: The first step to configuring Ad Astra was to identify which sections to exclude from the analysis. For example, we have a number of performance classes (MUP and TAP) which will always be under-enrolled at the start of a semester and would throw off analytics being performed. In addition for the preliminary run of data, WAC and RAD sections, Apprenticeship sections, and Safety Center sections were also excluded. (Page 26)

DECISION 15: One major concern that still remains is what the precise workflow process will be for the end users (deans and department chairs). While AD Astra does present a powerful suite of tools for room optimization and for performing historical and predictive analytics to help drive discussions about what should be scheduled, it may not be as robust in terms

of providing a user-friendly interface for department chairs and deans to utilize for the scheduling rounds. We have begun investigating a third product, [Digarc Section](#), to see if this product might assist with this. In addition, we're working with Ad Astra to identify how other schools use their system for this "last mile" of scheduling.

Next Steps Suggested:

NS 1: Continue identifying and configuring non-instructional rooms and spaces into Ad Astra as appropriate. (Page 10)

NS 2: Correct Room files with appropriate colloquial names to aid in identification of particular rooms. (Page 10)

NS 3: Verify the capacities of all of the rooms and make sure that we have not recorded a capacity that is over or under what it should be. ARC Facilities has software that calculates out the appropriate capacity size for classroom space and we need to verify that all of our rooms are compliant, safe and pedagogically sound for their recorded capacities. (Page 12)

**Next
STEP**

NS 4: Ad Astra is missing approximately 10% of the photos for our rooms, we need to capture these remaining images and get them into the system. (Page 12)

NS 5: Identify rooms within our inventory that have multiple configurations available in them and reflect these different configurations in the room records. (Page 12)

NS6: The second phase of identifying features will be to hold meetings with departments classrooms to ensure that we have captured the information correctly. The ARC ELSS committee will be holding these meetings through the first part of Spring 2019 in order to ensure that we have both identified all of the features needed and that these features have been accurately recorded for all of the rooms. (Page 15)

NS 7: As the Room Preference Rules are refined and groups of rooms are identified that need to be placed into regions, new regions will need to be developed to reflect scheduling interests. (Page 17)

NS 8: Capture and input the HVAC and Key information for each of our rooms. (Page 18)

NS 9: Explore opportunities to leverage the systems API for automatic Key requests and IMRON building unlocks. (Page 18)

NS 10: Work with district FM to explore HVAC automation. (Page 18)

NS 11: Refine regions to produce appropriate groupings of rooms to aid in effective rule creation. (Page 21)

NS 12: We need to further refine our definitions of schedule blocks to take into account all of the iterations which may occur in the schedule (with the understanding that there will always be sections which will need to be scheduled off-block due to a variety of reasons. (Page 23)

NS 13: The preliminary implementation of the system has focused upon building rules for ARC Main Campus facilities; we will need to build out rules for our centers. (Page 25)

NS 14: There will need to be a series of optimization runs in the system sandbox to help refine the rules. The process will be to run an optimization on a data from the FA18 and SP19 terms, compare the

recommended room placements with what had been actually scheduled, identify where the system has recommended inappropriate rooms, “tune” the rules to correct, and repeat. (Page 25)

NS 15: Develop ARC’s scheduling goals and KPIs to measure the goals success. Three potential goals might be:

- Improve Student satisfaction and Retention
- Ensure timely student program completion / Increase productive credit hour loads for students
- Address scheduling issues which contribute to the performance gap in our students. (Page 27)

NS 16: Work to clarifying and identifying the “core schedule to be built into the rollover queries. (Page 29)

NS 17: Work to clarify the rotational courses. This will create a need for identifying multiple rollover queries (e.g. Fall 1, Fall 2, Spring 1, Spring 2, etcetera). (Page 29)

NS 18: Craft Enrollment Management Committee charter and submit it to the Student Success Council. (Page 29)

NS 19: Identify appropriate reports and datasets to distribute to department chairs to assist in scheduling decisions. (Page 32)

NS 20: Identifying potential reports and other practices that we may use with Ad Astra in order to process scheduling. The system, currently, only is able to write rooms back to PeopleSoft—so if divisions/departments are scheduling within Ad Astra Platinum Analytics, how do we process this workflow in a manner which does not throw us back into a series of hand-keyed, siloed, paper driven systems. (Page 32)

NS 21: Consider whether or not we may need to purchase another interface product, such as Digarc Section, to provide efficient workflow in our scheduling process. (Page 32)

NS 22: The installation of As Astra has primarily been focused upon the Main campus. We will need to work with our centers to customize and configure the system to match their needs. (Page 33)

Business Practices Suggested:

BP 1: Additional locations with Ad Astra may be added in the future as necessary, however ARC will need a business practice to be put into place in order to ensure that appropriate locations are being used (the more locations created in the Ad Astra the more convoluted the interface may become). (Page 9)



BP 2: Ensure that district and ARC are on the same page regarding how we are structuring our location codes. District often uses the location codes to differentiate out types of classes for reporting reasons (the Public Safety courses are an example of this). (Page 10)

BP 3: Create a process by which facilities changes are updated and both PeopleSoft and Ad Astra are fully updated. (Page 10)

BP 4: We will need to create a business practice to identify what constitutes a *required* feature (the section or meeting may not occur without this feature being present) and what is a preferred feature (nice to have, but not required). (Page 15)

- BP 5:** We will need to create a business practice by which we keep the room features updated in the system—this includes updating rooms as features change, bringing new rooms online, and taking rooms offline. (Page 15)
- BP 6:** As we move to a system by which we are searching for rooms by their features, we will need to consider methods to create baselines of room features and methods for this base level of equipment to be supported at the college level rather than division-by-division. (Page 15)
- BP 7:** Grouping rooms into regions provides powerful tools for streamlining the creation of usage rules and ties into some of the reporting features within Ad Astra Schedule. We will need to build business practices to cover how rooms are grouped together to prevent a potential for these Room Regions to be used in a manner to exclude people from using rooms (i.e. there might be attempt to place rooms into a region of “These Rooms are Mine, Nobody else can use them.”) (Page 17)
- BP 8:** Establish a process to *update* Key and HVAC information for rooms as locks are re-keyed and HVAC zones are adjusted. (Page 18)
- BP 9:** Establish a process by which additions or edits to the Excluded rooms list are approved and then coded into Ad Astra. (Page 19)
- BP 10:** Evaluate the Location codes used for scheduling programs that are not technically on ARC’s main campus (e.g. Apprenticeship or Study Abroad) to see if it might be possible to utilize the “ARC Off Site” location code to better reflect our business practices and to clean up the data being imported to Ad Astra. (Page 20)
- BP 11:** Need to establish a business practice by which individual faculty members may have specific room usages rules associated with them. This may be due to ADA accommodations (i.e. “Only schedule John Smith on the first floor of Davies while he is recovering from his broken leg”), medical concerns (i.e. “Do not Schedule Jane Smith into any room with a chalkboard as she is allergic to chalk”), performance recommendations from the PRT process (i.e. “Do not schedule John Doe into any room larger than 35 while he works to retool his student engagement as recommended in the most recent PRT review” or specific technological requirements (i.e. Jane Doe must be scheduled into a room with a Kodachrome slide projector”. (Page 20)
- BP 12:** Establish a process by which we schedule courses into common blocks of time by default and there is a process by which exceptions are discussed and authorized if appropriate. (Page 23)
- BP 13:** Establish a process by which preference rules are evaluated and updated appropriately. (Page 26)
- BP 14:** Develop a process to evaluate and modify the “core” offerings in the rollover queries before they are run each term. (Page 29)
- BP 15:** Develop a process to evaluate and modify rotational course offerings in rollover queries before they are run each term. (Page 29)
- BP 16:** Establish the Enrollment Management Committee’s role in managing scheduling decisions. (Page 32)
- BP 17:** Establish business practices on how we will use these systems in the scheduling of our terms. (Page 32)

Where We've Been: How We Got Here

In the Fall of 2016, ARC applied to be a participant in the California Community College Chancellor's Office Institutional Effectiveness Partnership Initiative (IEPI) with a focus upon increasing ARC's ability to effectively schedule courses. The IEPI group visited the campus that Fall Semester and conducted interviews with over 30 faculty, staff, and administrators to discuss the college's processes and procedures for scheduling as well as to help identify issues or concerns with our current infrastructure and technological backbone to support scheduling. All four Los Rios colleges identified scheduling as issues to be pursued with assistance of the IEPI grant. The ARC ELSS Taskforce was formed by President Greene in the Spring of 2017 with representation from classified, faculty and management. At the same time, the district convened a district task force to examine the potential of purchasing scheduling software.

Through surveys and interviews the ARC ELSS committee collected information about ARC's state-of-scheduling and interests regarding what a potential technological solution might provide for the college. These interests/concerns were compiled into a report, *American River College Enrollment Processes and Procedures* document (available at <http://bit.ly/ELSS18>). Toward the end of Spring 2017 the district entered into a Request for Proposal (RFP) process by which it solicited proposals from vendors—this involved dozens of presentations at all four colleges and district from prospective vendors. In November of 2017 the district RFP recommended a vendor: Ad Astra systems. This vendor was approved by the board at the February 2018 board meeting.

Work prior to the official project kickoff:

1) Room Inventory

In the Spring of 2018, American River College conducted an inventory of instructional spaces. This inventory was conducted by a student crew supervised by Randy Schuster and the Maker Space, crews from facilities, and was validated by AVP Braden. This inventory included the identification of room features (equipment or other elements which could drive which courses need to be scheduled in a room) as well as the room 'Regions' which allow for like areas to be grouped together to present options when looking for appropriate rooms (e.g. "1st floor of Davies Hall", "2nd Floor of Davies Hall", et cetera). The data collected was inputted into a local database and put through a series of data validation protocols to ensure that the data was consistent and clean. This data was then compiled into the format required for input by the Ad Astra system. ARC's room inventory data was then merged with the other three colleges and district data and given to Ad Astra for import into the system. See more regarding the inventory and decisions made in the *Ensuring PeopleSoft & Ad Astra are on Speaking Terms* section of this document on page 8).

2) Single Ad Astra Instance or Individual (Campus Specific) Ad Astra Instances

Ad Astra is currently¹ two products: *Astra Schedule* which works to optimize room usage and *Astra Platinum Analytics* which analyzes student demand and projects recommendations on what sections should be scheduled. The first decision that the district needed to make in regards to the implementation of the Ad Astra systems was whether the systems would be installed as a single Los Rios Schedule and a single Los Rios Platinum instances or individual instances for each of the colleges. There were several interests expressed regarding having a single instance of the systems:

¹ Ad Astra has a product development goal of bringing these two systems together as a single product. Los Rios has, vociferously, indicated that Los Rios would like to be a part of the development of this merging of functionality up to and including being a test customer for the implementation.

- District had a desire to see demand analytics presented across the whole district.
- All four colleges and the district office expressed an interest in a future ability² to track FTEF resources, especially for adjuncts, across the district in real time as schedules were developed (i.e. tracking if an adjunct had space available in their load if they were teaching at multiple Los Rios campuses).
- Without a single instance of the system, there would actually need to be *five* Astra Schedule instances as DO is planning on using the system to manage their meeting and classroom (Ethan Way) spaces.
- There was a shared interest in the four Los Rios colleges identifying common elements of the scheduling process and bringing the colleges into alignment in their processes. Conversely, there was a concern that if there were four instances of the software that this would further diverge the scheduling processes and could potentially impact a later implementation of a unified Ad Astra system.

There were also concerns raised regarding single instances of the software (please note that some of these concerns came into relief as we began to utilize the system):

- There are structural reasons *why* the four colleges have different scheduling procedures scale, demographics, types of programs, et cetera. There were concerns that a “one size fits all” model of scheduling imposed through software choices/limitations would be detrimental to the ability of each college to create the schedules needed for their students.
- In order to get accurate analytic data to predict student demand and scheduling needs, Ad Astra both needs clean data and also needs to be configured in a manner to ensure that we are only analyzing the appropriate programs. This is done through excluding programs that may trigger false results (e.g. nursing cohort programs that are at 100% capacity triggering recommendations for additional sections that there is no capacity to add, performance courses with divergent enrollment patterns which trigger recommendations to cut sections that would de facto cut entire programs, Safety Center courses which are atypically scheduled and enrolled and therefore would cause analytic hiccups, et cetera). These exclusions are instance-wide so ARC could not choose to exclude EMT sections while CRC chose to keep them as a part of the analytics with the ways that certain programs are scheduled differently at different campuses, this could skew data.
- There were concerns with the fact that, when pulled together as a single entity, Los Rios is a *very large* institution. When all four campuses and DO are put together into a single database, there are over 2,500 rooms in the system. The choice to move to a district-wide instance of the system was predicated upon the assumption/hope that Ad Astra would be able to efficiently parse the data depending upon the user role (i.e. as an ARC user the date in all of the dropdowns would only show ARC data)—the concern was that if this was not able to be efficiently parsed that the system would be unwieldy. It turns out that Astra Schedule is *not* able to parse data this way. Initial solutions were to ensure that campus specific data was labeled with the campus name (e.g. Davies Hall is listed as “ARC Davies Hall”, specific room features would be labeled as “ARC Interactive Short Throw Projector”).

² Ad Astra is working on systems to track (and understand) FTEF and FTES, but they do not currently have that capacity.



DECISION 1: District made the decision to move forward with four separate instances of the Astra Platinum Analytics system and a single instance of the Astra Schedule system. This decision to have a single instance of Ad Astra Schedule reversed mid-October of 2018 as the four colleges began to find the combined single instance of Astra Schedule to be unwieldy and there were major issues with the system being able to accommodate our centers (it simply saw a center as another building on the main campus and would move courses between main campus and center facilities without understanding that they existed in separate locations). The decision was made to go back to *five* instances of the Schedule system (one for each campus and one for district).

3) **Data Validation: Clean data is happy data.**

- Prior to the official kickoff of the Ad Astra project, District IT began the process of creating the “data tunnel” between Los Rios’s PeopleSoft system and the Astra systems. The Astra platforms are cloud based and hosted by the company which requires a secure data pathway for our data to get into their system and for their system to be able to write back into PeopleSoft.³ Once the “data tunnel” was established the collected room inventory data was uploaded into Ad Astra and the first issues with our data integrity emerged. Ad Astra, District IT, and the individual colleges did not verify data integrity of their room inventories (many entries had been collected and keyed in by a variety of people so there was quite a bit of “noise” in the data (e.g. when there were typos in the features it created duplicate features such as ADA Table/Desk, ADA Tables/Desk, and ADA Tables/Desk all mean the same thing, but created three separate searchable room features.) When the databases were split and we were no longer working to clean up the features through a committee, ARC was able to clean up the features associated with the classes in its inventory.

District IT and legal spent the rest of the Spring ’18 semester ironing out the contract and getting the data “pipeline” set up. As a part of ARC’s governance process the original ELSS committee was transformed through a taskforce charter into the ELSS Task group in order to handle how this system would be configured for ARC (See Appendix 1: ELSS Task Group Charter). Working with the ARC Academic Senate, Professor Dyne Eifertsen was appointed as faculty tri-chair and working with the Classified Senate, Kevyn Montano was appointed as the classified tri-chair.

In June of 2018, the district ELSS committee kicked off the implementation phase of the project with weekly meetings scheduled every Monday through November—these meetings were established to provide the leads of the project training in the software, identifying information needed from the district/colleges, and developing preliminary business practices on how we plan on using the software to assist in scheduling. The Los Rios Ad Astra Implementation team, with representatives from all four Los Rios campuses and the District Office, began weekly meetings in the first week of August, 2018.

Configuring Ad Astra: Astra Schedule

Ensuring PeopleSoft & Ad Astra are on Speaking Terms

The first step of configuring a system that is designed to assist in the efficient and effective scheduling of rooms was to crosswalk our internal room inventory to the inventory of rooms held in PeopleSoft to define our rooms within the system. This process began with district exporting a list of the rooms as contained in PeopleSoft. District produced an excel sheet which identified 485 rooms in ARC’s instructional inventory (see the preliminary inventory at <http://bit.ly/2DlrciX>). The rooms on this

³ Note that at this point that Ad Astra *only* is able to write back room changes into PeopleSoft from the Astra Schedule program. The proposed schedule modifications suggested in the Platinum Analytics system will be exported via a report and then will still need to be manually entered into PeopleSoft. The ELSS Taskforce will be discussing and developing business practices to propose how best to utilize this system in scheduling.

PeopleSoft export are rooms that had been entered into PeopleSoft by ISAs in order to be attached to credit bearing course sections. This presented two problems: 1) the list did not include most conference rooms, study rooms, or offices and 2) while Los Rios historically has had a process to *add* in rooms, there was not a process to ensure that the list was kept current. There were a number of rooms on the list that were no longer active or attached to ARC (e.g. Ethan Way Center). The DO list was compared to local inventories and augmented by collating the internally produced inventory with the inventory provided by DO (generated from PeopleSoft).



DECISION 2: ARC submitted an initial inventory of 595 rooms to Ad Astra for inclusion into their system.

Location Codes

All courses in Los Rios are assigned a hierarchy of locations that tie a course to the college, campus, building, and room. The top level is the Campus Code that designates under which college (ARC, CRC, FLC, or SCC) that a course is scheduled. The 'Location Code' designates *where* under the umbrella of a campus that a course is scheduled. The simplest example of this is if a course is scheduled on ARC's Main Campus or at one of our centers. Complicating the use of the Locations Code for ARC, however, is that DO uses this to differentiate between different sets of offerings within the Safety Center—this was done in order to assist district with the reporting requirements of these programs.

The way in which centers were designated in PeopleSoft and Ad Astra became the first major indication that the initial choice to have a single instance of Ad Astra for all four colleges might not function. Within the initial implementation of Ad Astra, the system could not differentiate between different buildings on the ARC main campus and the buildings located at Natomas, McClellan, or Mather—while assigning rooms during test runs, the system would move classes between the different sites as if they were simply different buildings on a single campus, rather than different geographically separated campuses.



DECISION 3: When decision was made to separate the system into four distinct campuses, we were then given an opportunity to clean up which location codes that Ad Astra would be importing. In PeopleSoft ARC had over seventeen separate location codes (many of which were separate versions of Safety Center offerings). The decision was made to reduce this number to five centers to be linked to Ad Astra:

- ARC Main
- Natomas
- McClellan
- Mather
- ARC Off Campus



Business Practice 1: Additional locations may be added in the future as necessary, however ARC will need a business practice to be put into place in order to ensure that appropriate locations are being used (the more locations created in the Ad Astra the more convoluted the interface may become).

Building Code, Room Code, SIS Code

PeopleSoft tracks buildings through a 'Building Code' field that assigns a unique code to each of our buildings. Ad Astra creates an individual identifier from the Location Code, Building Code, and Room Number into what they call the SIS Code. For example, Davies Hall has a Building Code of 'ARC22' and Ad Astra would then take these elements to create a SIS code:

Location Code	Building Code	Room Number	OR	ARCC_ARC22_101
ARCC	ARC22	101		

An important part of the configuration of Ad Astra was to ensure that the SIS codes were correctly mapping to the buildings and rooms in PeopleSoft. When they were not correct, rooms would be dropped out of the academic schedule.

Building and Room Names

While rooms are tracked by their SIS Code in Ad Astra, the system also allows rooms to have colloquial names associated to them. Instead of displaying ARC25, when correctly configured, Ad Astra will display “Library.” Individual rooms may also be labeled with colloquial names to help in their identification. Fine Arts 580 is therefore labeled as being the “Evangelisti Dining Room (Oak Café)”. In some cases, identifying these colloquial names was easy (e.g. there is a plaque outside of Fine Arts 580 which says “Evangelisti Dining Room”) in other cases placeholder names were put into the system (e.g. Davies Hall 203 has a colloquial name in the system of “Davies Hall”).



DECISION 4: The decision was made to prioritize cleaning up the room inventory to ensure that all instructional spaces were correctly linked between PeopleSoft and Ad Astra. An attempt was also made to add in meeting spaces, faculty offices, and study/tutoring spaces. Faculty offices were entered into the system in order to present the future option of using Ad Astra to record office hours and the study rooms and the tutoring rooms were added in for the potential of tracking usage and future ability to set up systems by which students or tutors could dynamically reserve rooms.



NEXT STEP 1: Continue identifying and configuring non-instructional rooms and spaces into Ad Astra as appropriate.

NEXT STEP 2: Correct Room files with appropriate colloquial names to aid in identification of particular rooms.



BUSINESS PRACTICE 2: Ensure that district and ARC are on the same page regarding how we are structuring our location codes. District often uses the location codes to differentiate out types of classes for reporting reasons (the Public Safety courses are an example of this).

BUSINESS PRACTICE 3: Create a process by which facilities changes are updated and both PeopleSoft and Ad Astra are fully updated.

The Room Inventory

The space inventory took place over the latter part of the Spring 2018 semester with students working with the Innovation Lab, custodial staff from facilities, and staff from the Instruction office. This inventory sought to identify types of rooms, features within those rooms, collect photos of all of our instructional and meeting spaces, and develop “regions” for the classrooms.

Types of Rooms

Working with the vendor, they recommended that we limit our room types to a restricted set of general descriptors. In order to do this the decision was made at district to base the room types off of a simplified selection of room types as delineated in the California Community College Space Inventory Handbook (see: <http://bit.ly/Splnvt>). The district team identified the following types of rooms in our inventory:

Room Type	Definition
Athletics/Physical Education	A room (or area) used by students, staff or the public for athletic/physical education activities.
Auditorium	A room designated and equipped for the assembly of large numbers of persons for such events as dramatic, musical, devotional, livestock judging or commencement activities.

Classroom	A room used for classes that do not require special purpose equipment for student use.
Conference Room	A room serving offices and used primarily for staff meetings and departmental activities other than instructional.
Laboratory	A room used primarily by regularly scheduled classes that require special-purpose equipment for student participation, experimentation, observation or practice in a field of study.
Office Space	A room used by faculty, staff or student officers working at a desk (or table).
Other	A category of last resort. (I kid you not: this is the definition in the official CCCCCO handbook!)
Reading/Study Room	A room used by groups or individuals to study, rehearse, or receive tutoring.




DECISION 5: The Room Types agreed to by the district match up to the official state inventory guidelines. Per the recommendations of our vendor, the district ELSS committee also sought to limit the number of room type designations in order to allow for differentiation of the spaces without getting too granular into the different room types.

The granularity to differentiate rooms is designed to come from the *features* within those rooms. See the Room Features section of this document on Page 12 for more information. It is recommended the any additional Room Types be added into the system with caution. Note that the Room Type list is edited within the Ad Astra Schedule system through the Master List interface in the Settings tab.

Configurations

Ad Astra provides the ability to define different configurations for classrooms that are reconfigurable. With the initial configuration, each classroom has a ‘standard’ configuration. Within this configuration, each room was codified with the following information:

Field	Definition		
Name	This is the name of the particular configuration. The default value for the name is “Standard.” For rooms that have a variety of different possible configurations each may be named for a quick differentiation from the other potential configurations.		
Facility Layout	<p>This is a dropdown providing options for standard configurations:</p> <table border="1"> <tr> <td> <ul style="list-style-type: none"> • Art Laboratory • Circle • Computer Lab (Mac) • Computer Lab (PC) • Conference • CTE Laboratory • Default • Meeting table </td><td> <ul style="list-style-type: none"> • Open, No Furniture • Open Square • Science Laboratory • Square • Tables and Separate Chairs • Tablet/Arm • Tiered Seating <p>U Shaped</p> </td></tr> </table>	<ul style="list-style-type: none"> • Art Laboratory • Circle • Computer Lab (Mac) • Computer Lab (PC) • Conference • CTE Laboratory • Default • Meeting table 	<ul style="list-style-type: none"> • Open, No Furniture • Open Square • Science Laboratory • Square • Tables and Separate Chairs • Tablet/Arm • Tiered Seating <p>U Shaped</p>
<ul style="list-style-type: none"> • Art Laboratory • Circle • Computer Lab (Mac) • Computer Lab (PC) • Conference • CTE Laboratory • Default • Meeting table 	<ul style="list-style-type: none"> • Open, No Furniture • Open Square • Science Laboratory • Square • Tables and Separate Chairs • Tablet/Arm • Tiered Seating <p>U Shaped</p>		
	 <p>DECISION 6: The Facility Layout options are configured through the Master List interface in the Ad Astra Schedule Settings dialog—we can add additional types as ARC deems them necessary. When searching for available rooms, a user may use the facility layout as a field to filter available rooms by. These configurations will be especially important for rooms that are primarily used for events and are often able to be configured in different ways for different types of events (e.g. the community rooms).</p>		

Field	Definition
Capacity	<p>This is the number of seats available in the selected configuration. Ad Astra tracks two indications of the number of people that may be in a room: the Capacity and the Max Occupancy. The <i>Max Occupancy</i> refers to the fire marshal designation of the maximum number of people that may legally be in a room. This is calculated by the fire marshal and (in newer buildings) displayed upon a plaque next to the door of the room.</p> <p>Decision 7: The <i>Capacity</i> of the room is how many seats/stations there are for students within the room. This was determined through two methods: a physical count of desks/chairs within a room and a historical evaluation of class sizes taught in each room since Fall 2014 (See bit.ly/2Tib3FD for the analysis).</p> <p>The Capacity field in a room record is very important because it will indicate the maximum number of students/participants that may be scheduled in a room—Ad Astra will not schedule classes into rooms where the Max Size of the section exceeds the Capacity of the room.</p>
Description	This is a memo field where a description may be entered to place specific information regarding each configuration.
Setup/Teardown services	This allows for setup and teardown (for such items as IT, AV, Custodial, Aramark, et cetera) may be attached to the configuration with a time for each service—thus if a user schedules two events (or classes) with different configurations the system will buffer the passing time to allow for the identified setup and takedown activities to occur.
Photo	Each configuration may have a photo attached. This allows users to see images of potential rooms they are looking to schedule. Photos were taken by students working with Randy Schuster, Matt Stoehr, and Brandy Worsfold through the Innovation Lab.



NEXT STEP 3: Verify the capacities of all of the rooms and make sure that we have not recorded a capacity that is over or under what it should be. ARC Facilities has software that calculates out the appropriate capacity size for classroom space and we need to verify that all of our rooms are compliant, safe and pedagogically sound for their recorded capacities.

NEXT STEP 4: Ad Astra is missing approximately 10% of the photos for our rooms, we need to capture these remaining images and get them into the system.

NEXT STEP 5: Identify rooms within our inventory that have multiple configurations available in them and reflect these different configurations in the room records.

Room Features

Room features are permanent attributes of a room that are significant for scheduling purposes. Only those specific room attributes that are often requested or required by activities should be included as room features. Keep in mind that excessive use of room feature requests can limit room selection to the point of virtually pre-assigning rooms to sections.

The Room Features were initially defined and agreed to when ARC was working within a single instance of the database (meaning that the intention was for all four colleges to use the same list of room features). This proved incredibly unwieldy and became the first indication that having a single database for all four colleges might prove difficult. In particular, there were issues with data integrity: multiple features defined for the same thing (e.g. DVD, DVD Player, DVD-Player, et cetera); there were issues with the colleges performing their room inventories slightly differently (e.g. some schools chose to provide counts with the features and others did not); and since there are programs at each college that are unique it stands to reason that there would be a need for unique room features for those unique programs.



DECISION 8: Working with the vendor, we identified room features that could be used to help determine the appropriateness of placing a section into a classroom. In order to do identify the appropriate features, first a set of Room Feature Categories were defined:

Feature Category	Description
Audio/Visual	Audio/Visual equipment including projectors, sound systems, screens, et cetera
Educational Aids	Educational resources installed in the room such as maps, posters, periodic tables, et cetera
Information Technology	This includes the instructor station computers, laptop connections, and computers for students to use.
Instructional Equipment	Instructional Equipment
Laboratory Configurations	Rooms that have particular configurations to support lab courses.
Permanent Room Features	Whiteboards, chalkboards, et cetera These features are permanently installed in the room.
Safety Equipment	Safety equipment installed in the room,
Seating	The type of seating furniture in the room.

The Feature Categories are a way of organizing the Room Features in order to make it easier to locate them while assigning them to individual rooms. These categories are only visible from the screen where features are attached to individual rooms. While there is no restriction on adding additional Feature Categories, the operational reality is that the more categories that are used, the more a user may have to search through them to find the feature that they are attempting to attach to a room (e.g. is a digital projector in the A/V, IT, or Permanent Room features Categories?) Note that the Feature Category list is edited within the Ad Astra Schedule system through the Master List interface in the Settings tab.

In performing the room inventory and working with recommendations from the vendor room features were identified that could influence the appropriateness of a room for reasons of pedagogical (e.g. required instructional equipment present), safety (e.g. is there a chemical hood present), technology (e.g. Mac or PC at instructor station), accommodation (e.g. if there is a visible alarm system installed to accommodate students/faculty with hearing impairment).



DECISION 9: In performing our room inventory and working with the vendor, the following room features were identified for ARC rooms within Ad Astra:

Feature	Definition	
Assisted Listening Device	An Assistive listening device (ALD) is used to improve hearing ability for people in a variety of situations where they are unable to distinguish speech in noise.	Audio Visual
Blue Ray	Media player to play Blue Ray disks (may be the room computer).	
Doc Camera	A mounted camera attached to a digital projector that projects documents and other objects onto a screen.	
DVD	Media player to play DVDs (may be the room computer)	
Electronic Whiteboard	An electronic whiteboard is an interactive display board that connects to a computer and projector.	
Overhead Projector	Analog projector for transparencies	
Projector (Interactive Short Throw)	Interactive Projectors essentially mimic the function of an interactive whiteboard on any surface where the image is projected.	
Projector (Ceiling Mounted)	Digital projector mounted to the room ceiling.	
Projector (Non-mounted)	Projector not mounted to the ceiling either on a cart or loose.	
Screen - Center	Projection screen mounted in the center of the room.	
Screen - Side	Projection screen mounted to the side of the room.	
Sound System (mounted)	Sound system mounted within the room.	

Sound System (portable)	A non-mounter sound amplification system.	
Tape Playback	Equipment to play back audiocassette recordings.	
TV	Television in the room (mounted or on cart)	
VCR	Video Cassette Player.	
Computers (Student) Mac	Macintosh Computers for students to use in class.	Info. Tech
Computers (Student) PC	PC Computers for students to use in class.	
Instructor Station - Mac	Teaching computer station for the instructor, MAC.	
Instructor Station - PC	Teaching computer station for the instructor, PC.	
Laptop Connection	Connection for a laptop to be connected to the room projector/sound system.	Instructional Equip
Exercise equipment	Equipment for exercising.	
Bunsen Burner	Bunsen burner stations.	
Globe/World Maps	Maps or globes for educational usage.	
Microscope	Microscopes for use in student labs.	
Periodic Table	Poster of Periodic table on wall.	
Piano	Either an electronic keyboard or acoustic piano.	
Skeleton	Mounted skeleton anatomical model	Lab Config
Laboratory (ART)	Room with equipment suited for art lab sections.	
Laboratory (Biology)	A room with equipment suited for biology lab sections.	
Laboratory (Chemistry)	A room with equipment suited for Chemistry lab sections.	
Laboratory (Computer)	A room with equipment suited for computer lab sections.	
Laboratory (Nursing)	Room configured to be used as a nursing lab.	Perm. Features
Chalkboard	Permanently installed chalkboard.	
Chalkboard (Movable)	Chalkboard that is not attached to the wall.	
Sink	Wet sink.	
Stage	Raised stage area	
Whiteboard	Permanently mounted Whiteboard	
Whiteboard (Movable)	Whiteboard that is not attached to the wall.	Seating
ADA Table/Desk	Tables identified as ADA seating for students who require the accommodation.	
Fixed Room	A room not designed to be reconfigured.	
Reconfigurable	Room is designated as being able to be reconfigured with different seating configurations.	
Seating (Chair & Desk units)	Typical desk/chair AKA tablet arm furniture for student seating	
Seating (Tiered Floor)	Tiered auditorium style seating	
Seating (Table or Lab Benches & Stools)	Counter height Tables or Lab Benches and Stools or Drafting chairs	
Seating (Tables & Chairs)	Seating with separate tables and chairs	Safety
Fire Extinguisher	Fire Extinguisher mounted in the room.	
Fume Hood	Chemical fume hood.	
Phone	Phone mounted in the room.	
Visual Alarm System	Alarm system designed to alert hearing impaired staff and students of an emergency.	

Features are important because they are key criteria by which a user can filter for rooms and identify which rooms are appropriate for different classes or meetings to be scheduled. While it is relatively easy to add in additional features, we will want to ensure that we are careful to identify any additional features that make sense to filter for and that we are consistent with how things are identified.



NEXT STEP 6: The second phase of identifying features will be to hold meetings with departments classrooms to ensure that we have captured the information correctly. The ARC ELSS committee will be holding these meetings through the first part of Spring 2019 in order to ensure that we have both identified all of the features needed and that these features have been accurately recorded for all of the rooms.



Ad Astra allows us to identify as many features as we need, however the performance of the system degrades as we get increasingly granular with feature requests.

BUSINESS PRACTICE 4: We will need to create a business practice to identify what constitutes a *required* feature (the section or meeting may not occur without this feature being present) and what is a preferred feature (nice to have, but not required).

BUSINESS PRACTICE 5: We will need to create a business practice by which we keep the room features updated in the system—this includes updating rooms as features change, bringing new rooms online, and taking rooms offline.

BUSINESS PRACTICE 6: As we move to a system by which we are searching for rooms by their features, we will need to consider methods to create baselines of room features and methods for this base level of equipment to be supported at the college level rather than division-by-division.

Room Regions

Ad Astra provides the option to assign rooms to a *Region*. This provides a user-defined group of buildings and/or rooms used to set scheduling preferences and user security restrictions. The designation of rooms into regions was one of the earliest decisions that we were asked to make in our room inventory and we categorized rooms without fully understanding how (or why) we needed to group together rooms into regions.



DECISION 10: Our initial room regions were relatively simplistic (e.g. “Davies First Floor” which included all of the classrooms in the first floor of Davies Hall). These initial Room Regions were geographical or to group rooms together in regions of the campus:

Region	#Rooms in Region	Description
1st Floor Davies	14	1st Floor Davies
2nd Floor Davies	29	2nd Floor Davies
3rd Floor Davies	99	3rd Floor Davies
Admin Building	1	Admin Building
Apprenticeship	14	Apprenticeship
Art Studio Rooms	9	Art Studio Rooms
Arts & Science	12	Arts & Science
BCS Complex	7	BCS Complex
Beaver Football Stadium	1	Beaver Football Stadium
Center for Leadership Development	1	Center for Leadership Development
Child Development Center - EAST	1	Child Development Center - EAST
Fields	2	Fields

Region	#Rooms in Region	Description
Fine and Applied Arts	59	Fine and Applied Arts
Fine and Applied Arts Office Complex	15	Fine and Applied Arts Office Complex
Gym	2	Gym
Health & Education-North	3	Health & Education-North
Health & Education-South	11	Health & Education-South
Howard-Math and Business Hallway	23	Howard-Math and Business Hallway
Howard-Math Division Office	4	Howard-Math Division Office
Howard-Mathematics Hallway	24	Howard-Mathematics Hallway
Howard-North Hallway	3	Howard-North Hallway
Howard-South Hall	3	Howard-South Hall
Inderkum-A Wing	16	Inderkum-A Wing
Inderkum-C Wing	11	Inderkum-C Wing
Inderkum-D Wing	5	Inderkum-D Wing
Inderkum-G Wing	5	Inderkum-G Wing
Inderkum-Track	1	Inderkum-Track
ITC	2	ITC
Kinesiology & Athletics	11	Kinesiology & Athletics
Learning Resource Center	33	Learning Resource Center
Library 1st Floor	1	Library 1st Floor
Library 2nd Floor	11	Library 2nd Floor
Library 3rd Floor	8	Library 3rd Floor
Library Lower Level	27	Library Lower Level
LRC	3	LRC
Math Complex	4	Math Complex
Mather	5	Mather
McClellan Center	2	McClellan Center
McClellan Center - First Floor	2	McClellan Center - First Floor
McClellan Center-First Floor	6	McClellan Center-First Floor
McClellanCenter-Second Floor	4	McClellanCenter-Second Floor
Natomas - First Floor	1	Natomas - First Floor
Natomas-First Floor	3	Natomas-First Floor
Natomas-Second Floor	3	Natomas-Second Floor
Operations-Cafeteria	2	Operations-Cafeteria
Paramedics Building	2	Paramedics Building
Portable Village	19	Portable Village
Raef Hall	3	Raef Hall
Science	2	Science
Science Faculty Building	18	Science Faculty Building
Science Portables	4	Science Portables
Science-Biology	6	Science-Biology
Science-Chemistry	10	Science-Chemistry
Science-Geology	3	Science-Geology
Soccer Stadium	1	Soccer Stadium
Sport Fields	2	Sport Fields
Student Center	8	Student Center
Student Service	1	Student Service
Tech Ed	24	Tech Ed
Tech Ed-Engineering/Physics	26	Tech Ed-Engineering/Physics
Tennis Courts	1	Tennis Courts
Twin Rivers Unified School District	2	Twin Rivers Unified School District

It was not until we began to write out the Room Preference rules (See *Room Preference Rules* on page 18 for more information) that we realized two important things about the Room Regions:

- 1) A room may be assigned to multiple regions. For example Fine and Applied Arts 504 can belong to the “Fine and Applied Arts Region,” the “2D Studio Art Classrooms,” and the “Non-traditional classroom setup” regions. Each of these can then be used in particular rules or queries in order to get classes or events into (or excluded from) the appropriate rooms. In this case, we can set up a rule that says “All 2D studio Art classes must be scheduled in the 2D Studio Art Classrooms” or a rule that says “Do not schedule any lecture classes into classrooms in the Non-traditional classroom setup classrooms”.
- 2) Another benefit of rooms being able to be in multiple regions is that the system may be set up in order to use these regions to groups of similar rooms or rooms where things have traditionally been scheduled to ensure that classes get placed in those rooms first. For example, we might have a suite of lecture rooms that Political Science courses have traditionally been scheduled in. We can set up a rule which says “It is preferred that all classes be scheduled in the ‘Political Science Preferred Classrooms’ before looking for other room options”.



NEXT STEP 7: As the Room Preference Rules are refined and groups of rooms are identified that need to be placed into regions, new regions will need to be developed to reflect scheduling interests. **The regions have not been fully leveraged within the system and there is a need to continue working on refining the regional groupings for rooms.**



BUSINESS PRACTICE 7: Grouping rooms into regions provides powerful tools for streamlining the creation of usage rules and ties into some of the reporting features within Ad Astra Schedule. We will need to build business practices to cover how rooms are grouped together to prevent a potential for these Room Regions to be used in a manner to exclude people from using rooms (i.e. there might be attempt to place rooms into a region of “These Rooms are Mine, Nobody else can use them.”)

Other Configured Room Elements

In addition to the items above, each room also has some additional options that have been configured (or will need to be configured),

- **May Not Schedule**
Room is off line and unavailable for scheduling. This may be used when a room needs to be taken offline,
- **Arranged Schedule**
Room is only available for those sections flagged as “Arranged”. This is typically an off-campus, on-line, or otherwise “fake” room used for reporting purposes.
- **Do Not Optimize**
Room is only available for manual scheduling. This removes the room for consideration to be optimized. Generally, all offices and conference rooms have had this feature selected to prevent the system from trying to schedule classes into them.
- **May be Shared**
Room may be shared by multiple sections, up to the number specified and the room capacity. Room is only available for manual scheduling. Shared rooms may be shared by multiple sections simultaneously. This classification should be limited to special use rooms like gymnasiums and labs, where multiple activities can be occurring at the same time. Enabling the sharing option will allow the room to be manually double-booked, up to the number of allowed sections and the capacity of the room. The room assignment optimizer does not schedule rooms flagged as “May Be Shared”.
- **HVAC Zone**
We can attach the Heating and Cooling zone to each room and then facilities could potentially pull

the usage information from the Ad Astra Application Program Interface (API) and use this information to turn on and off the system as there is (or is not) scheduled usage. DO Facilities Management is quite interested in developing this feature; however, none of the campuses have entered in this information yet. It will take some software interface development in order for this to work and is part of a later phase of implementation of this system.

- **Key Number**

Similar to the HVAC information above, we have the ability to attach key information to each room. There is a potential that we could then generate key requests from the system as faculty are assigned to new rooms. We are not there yet, but this is potentially viable as we become more adept at using this system (and we enter in the key information).

- **Max Occupancy**

Represents the maximum number of people allowed in the room and is often dictated by the fire code. This is not used for scheduling purposes but is a reporting field.



NEXT STEP 8: Capture and input the HVAC and Key information for each of our rooms.

NEXT STEP 9: Explore opportunities to leverage the systems API for automatic Key requests and IMRON building unlocks.

NEXT STEP 10: Work with district FM to explore HVAC automation.



BUSINESS PRACTICE 8: Establish a process to *update* Key and HVAC information for rooms as locks are re-keyed and HVAC zones are adjusted.

Room Preference Rules

Academic room scheduling preferences in Astra Schedule allow a user to specify a preference for (or require or exclude) certain Room Types, Features, Regions, Buildings or even specific Rooms based on the subject, course, meeting type, instructor, and/or campus of the course section in question.

Term-specific, section-level scheduling preferences can be edited as desired, but section records will otherwise automatically have scheduling preferences applied from rules defined in Preference Sets. Preference rules within a set contain both rule matching attributes (campus, meeting type, subject, course, instructor) and the rule preferences (room type, feature, region, building, room, OR meeting pattern groups/meeting patterns). The order in which the rules are applied is determined by the order of the rules within the preference set.

On a rule-by-rule basis, preferences of a specific type (i.e. Room Type) can be configured to "override" any other preference rules encountered during the application of preferences. If a section matches the rule, any preferences it already has for that type will be removed and replaced with the new ones. This feature allows certain course sections to have preferences applied that are different than the broader rule that may have been applied earlier in the process.

Finally, specific preferences can be "blocked" for certain sections. For example, a broad preference may be applied early in the rule set that grants a preference to many sections. If there is a specific section offering combination that is an exception to the rule, then a rule may be created to block the application of that preference for the individual. This feature allows the application of broad preferences with exceptions.

The system will evaluate each rule defined in the preference set, in the order configured, and apply preferences to sections with attributes that match the defined rule. By default, preferences are combined

for sections that match multiple rules. However, if a rule is encountered that is an "override" then it will eliminate other preferences that were previously applied for sections that match the override rule. Likewise, if a rule is encountered with a "block" applied, then the section in question will not receive the applicable preference.

Data Driven Rule Building

An analysis was performed of the how sections were scheduled into rooms in the FA18 and SP18 terms. It was deemed infeasible to go back further than SP18 with an analysis of how spaces were used due to the disruption caused by taking the Liberal Arts building off-line. Utilizing the SP18 and FA18 schedules a report was built to evaluate all of the sections scheduled in each room on the ARC campus. The report was structured to provide the following:

- A list of each section scheduled in a room in SP18 and FA18.
- For each of the sections the report identified if the room was scheduled only in that room or if the course was scheduled in additional rooms.

The report provided an analysis of the scheduling patterns to analyze if the room was exclusively scheduled by a department, primarily scheduled by one department (but shared with others), or shared by multiple departments. This report also identified if a classroom was only scheduled for lab sections, a mixture of lecture and lab sections, or only scheduled for lecture sections. Find the ARC historical scheduling room analysis at <http://bit.ly/2Tib3FD>.

Building the Room Preference Rules, First Steps

Once ARC had a working suite of rooms within Ad Astra, the ARC ELSS began to identify criteria that would require that a room would be categorized as unavailable except for a narrow list of courses. The reason for this was to identify which rooms needed to be designated as sufficiently “different” to preclude them from being available for general classes to be scheduled.

Exclusion Criteria	Example
No instructional furniture (Open Classroom)	Fine Arts 515 is an acting classroom with no furniture.
Specialty equipment that precludes normal class dynamics	Tech Ed 332A is a welding laboratory.
Safety/Legal Concerns	Health Ed 702 is the Mortuary classroom.
Specialty Lab/Impacted Program	LRC WAC is the Writing Across the Disciplines lab.

If specialty rooms are not designated within the system, Ad Astra does not know, for example, that it would be inappropriate to schedule an Accounting class into the Pool (something that happened the first time we ran the optimizer without any rules having been set).



DECISION 11: Utilizing the approved criteria and with a historical evaluation of scheduling patterns a list of 78 rooms were identified as needing to be excluded from being generally available to be scheduled. See Appendix 2: Excluded Rooms on Page 42 for these excluded rooms.



BUSINESS PRACTICE 9: Establish a process by which additions or edits to the Excluded rooms list are approved and then coded into Ad Astra.

Room Preferences: Criteria for Triggering Rules

Rules are built through two sets of data points: the Criteria and the Preferences. The criteria are what trigger the rule and consist of:

- **Campus**
With the split of Ad Astra instance into one for each college, the Campus field now is mapped to our Location codes: ARC Main, Mather, McClellan, Natomas, and Off Site.
- **Meeting Type**
Rules can be set to trigger if sections are scheduled as Lecture or Laboratory. This can be beneficial for disciplines that might split their lecture and lab locations (many of the sciences do this to maximize time in the laboratory facilities).
- **Subject**
Rules may be triggered by the subject designator (i.e. ART, ENGWR, BIOL, et cetera),
- **Course**
Rules can be triggered by specific courses (i.e. ART 300, ENGWR 302, BIOL 400, et cetera).
- **Instructor**
Rules can be triggered by a specific faculty member. Ad Astra recommends that we use this level of granularity sparingly—if we were to apply 1,000 individual faculty room preferences the system would, more likely than not, be unable to function. See the proposed business practice below for more specifics

Multiple criteria may be selected for a rule, for example a rule may be set up to be triggered: “For courses scheduled on **ARC Main**, that are **Lecture** sections, taught in the **BIOL** subject, and are taught by **John Smith**.” The criteria selected for a rule can provide for a very broad trigger (i.e. only selecting “ARC Main” would create a rule for all courses taught on the main campus) or down to an individual section taught by a particular faculty member.



Business Practice 10: Evaluate the Location codes used for scheduling programs that are not technically on ARC’s main campus (e.g. Apprenticeship or Study Abroad) to see if it might be possible to utilize the “ARC Off Site” location code to better reflect our business practices and to clean up the data being imported to Ad Astra.

Business Practice 11: Need to establish a business practice by which individual faculty members may have specific room usages rules associated with them. This may be due to ADA accommodations (i.e. “Only schedule John Smith on the first floor of Davies while he is recovering from his broken leg”), medical concerns (i.e. “Do not Schedule Jane Smith into any room with a chalkboard as she is allergic to chalk”), performance recommendations from the PRT process (i.e. “Do not schedule John Doe into any room larger than 35 while he works to retool his student engagement as recommended in the most recent PRT review” or specific technological requirements (i.e. Jane Doe must be scheduled into a room with a Kodachrome slide projector”).

Room Preferences: Preferences

The “Preferences” are what are triggered by the criteria. There can be multiple preferences triggered by each criteria and the preferences can be weighted. In addition, preferences can be designated as “Normal” which indicates that the preference is preferred but not required, “Required” which indicates that this criteria must be met, “Excluded” which indicates that this criteria must not be met (this allows for rooms like the pool to be excluded for all sections except for the appropriate sections—this is accomplished through an “override” rule), finally rules can be designated as “Blocked” in order to exempt specific sections from other broad rules. These preferences can trigger requirements for sections to be scheduled into:

- **Room Types**

This preference allows for sections to be designated into particular types of rooms. The Room Types were established as a part of the room configuration process (see Types of Rooms on page 10).

- **Features**

This preference allows for sections to be designated into rooms which have particular features in them. The Room Features were established as a part of the room configuration process (see Room Features on page 12).

- **Regions**

This preference allows for sections to be designated into particular regions of rooms. The Room Regions were established as a part of the room configuration process (see Room Regions on page 15).

- **Buildings**

This preference allows for sections to be designated into particular buildings on the campus.

- **Rooms**

This preference allows for sections to be designated into particular rooms on the campus.



Next Step 11: Refine regions to produce appropriate groupings of rooms to aid in effective rule creation.

Block (Standard) Meeting Patterns

Research indicates that students are more successful at completing a degree or certificate if they are able to construct a schedule which allows for 12-15 units to be taken a semester. While this may not be possible for many of our students, we need to be conscious of structural barriers that may be in place which prevent students from taking more than a single course in a semester. If sections are scheduled with irregular start and ending times, it may make it difficult for students to plan to take multiple courses in a semester. In the Fall 2018 semester there were 666 different patterns scheduled for courses.⁴ While there are a variety of reasons why sections may be scheduled at various times and on various days, this variety of scheduling patterns may present unique problems for students to schedule multiple courses in a semester and can also present issues with room usage—as sections are scheduled at times which cross over other sections students cannot take these conflicting sections and the rooms are unable to be scheduled for more than one section. An analysis was performed to identify the most utilized meeting patterns that produced the uniform potential for a student schedule that allows multiple sections to be taken.

The first step in analyzing potential scheduling blocks is to determine what constitutes a common type of course. As of December 2018, there are 2005 active courses in the ARC catalog. The most common type of course offered at ARC is a 3-unit lecture only course with 525 courses (26.18% of the catalog). In Fall of 2018, 31.25% of the courses offered face-to-face at ARC were .200 FTE, 3-unit lecture only sections. For these 31.25% of the scheduled sections, there were 189 different Scheduling Patterns used for Full-Term sections. The most common Scheduling Patterns were identified as the Standard Block for .200 FTE Lecture only sections.

⁴ A “Scheduling Pattern” here is defined as a section which is a specific combination of meeting times and days that may be assigned to an academic course section offering.

Blocks for Lecture only, 3-unit courses. (54 hours lecture, .200 FTE)

Pattern	Description	# Scheduled FA18
MW 7:30-8:50A	Standard 3-unit lecture pattern, on-grid, prime-time	58
TR 7:30-8:50A	Standard 3-unit lecture pattern, on-grid, prime-time	55
MW 9-10:20A	Standard 3-unit lecture pattern, on-grid, prime-time	214
TR 9-10:20A	Standard 3-unit lecture pattern, on-grid, prime-time	221
MW 10:30-11:50A	Standard 3-unit lecture pattern, on-grid, prime-time	246
TR 10:30-11:50A	Standard 3-unit lecture pattern, on-grid, prime-time	258
MW 12-1:20P	Standard 3-unit lecture pattern, on-grid, prime-time	172
TR 12-1:20P	Standard 3-unit lecture pattern, on-grid, prime-time	149
MW 1:30-2:50P	Standard 3-unit lecture pattern, on-grid for MW	138
TR 1:30-2:50P	Standard 3-unit lecture pattern, on-grid for TTH	139
MW 3-4:20P	Standard 3-unit lecture pattern, on-grid for MW	88
TR 3-4:20P	Standard 3-unit lecture pattern, on-grid for MW	85
MW 6-7:20P	Standard 3-unit lecture pattern, on-grid for MW	75
TR 6-7:20P	Standard 3-unit lecture pattern, on-grid for TTH	69
MW 7:30-8:50P	Standard 3-unit lecture pattern, on-grid for MW	46
TR 7:30-8:50P	Standard 3-unit lecture pattern, on-grid for TTH	39

These blocks also work for courses taught in the third most common pattern for ARC courses: a .350 FTE 3-unit lecture and 1-unit lab section. These courses represent 108 courses in the ARC catalog or 5.39% of the total courses.

Blocks for Lecture/Lab, 3-unit courses. (36 hours lecture, 54 Hours Lab.283 FTE)

The next most common type of course offered at ARC is a 2-unit lecture and 1-unit lab section with 195 in the ARC catalog or 9.73% of the course offerings at ARC. In the Fall of 2018, 12.91% of face-to-face courses scheduled at ARC were .283 2-unit lecture, 1-unit lab sections. Because these lecture/lab sections require more in-class time, they conflict with the standard .200 lecture blocks, so an emphasis was made to ensure that they had common start times.

Pattern	Meeting Type	Description	# Scheduled FA18
MW 9:00-9:50A	Lec	Standard Lecture portion of .283 Lecture/Lab section, prime time	44
MW 10:00-11:20A	Lab	Standard Lab portion of .283 Lecture/Lab section, prime time	31
TR 9:00-9:50A	Lec	Standard Lecture portion of .283 Lecture/Lab section, prime time	29
TR 10:00-11:20A	Lab	Standard Lab portion of .283 Lecture/Lab section, prime time	33
MW 12:00-12:50P	Lec	Standard Lecture portion of .283 Lecture/Lab section, prime time	36
MW 1:00-2:20P	Lab	Standard Lab portion of .283 Lecture/Lab section, prime time	25
TR 12:00-12:50P	Lec	Standard Lecture portion of .283 Lecture/Lab section, prime time	25
TR 1:00-2:20P	Lab	Standard Lab portion of .283 Lecture/Lab section, prime time	25
MW 3:00-3:50P	Lec	Standard Lecture portion of .283 Lecture/Lab section	34
MW 4:00-5:20P	Lab	Standard Lab portion of .283 Lecture/Lab section	27
TR 3:00-3:50P	Lec	Standard Lecture portion of .283 Lecture/Lab section	25
TR 4:00-5:20P	Lab	Standard Lab portion of .283 Lecture/Lab section	18
MW 6:00-6:50	Lec	Standard Lecture portion of .283 Lecture/Lab section	17
MW 7:00-8:20	Lab	Standard Lab portion of .283 Lecture/Lab section	37
TR 6:00-6:50	Lec	Standard Lecture portion of .283 Lecture/Lab section	11

Pattern	Meeting Type	Description	# Scheduled FA18
TR 7:00-8:20	Lab	Standard Lab portion of .283 Lecture/Lab section	23

These blocks also work for the courses which are 2-unit lecture courses (70 or 3.49% of courses in the ARC catalog) and 1-unit lab courses (138 or 6.88% of courses in the ARC catalog).

Blocks for Lecture only, 4-unit courses (72 hours lecture, .267 FTE)

These courses represent 84 courses in the ARC catalog or 4.19% of the courses. In Fall of 2018, these sections represented 10.58% of the sections offered in the schedule.

Pattern	Description	# Scheduled FA18
MW 8:00-10:05A	Standard 4-unit lecture pattern, on-grid, prime-time	13
TR 8:00-10:05A	Standard 4-unit lecture pattern, on-grid, prime-time	8
MW 10:30-12:35P	Standard 4-unit lecture pattern, on-grid, prime-time	3
TR 10:30-12:35P	Standard 4-unit lecture pattern, on-grid, prime-time	5
MW 1:30-3:35P	Standard 4-unit lecture pattern, on-grid	2
TR 1:30-3:35P	Standard 4-unit lecture pattern, on-grid	1
MW 6-8:05P	Standard 4-unit lecture pattern, on-grid	8
TR 6-8:05P	Standard 3-unit lecture pattern, on-grid	7



DECISION 12: The most common blocks that have been traditionally used at ARC were identified in Ad Astra as ARC's standard Course Blocks.



NEXT STEP 12: We need to further refine our definitions of schedule blocks to take into account all of the iterations which may occur in the schedule (with the understanding that there will always be sections which will need to be scheduled off-block due to a variety of reasons).



BUSINESS PRACTICE 12: Establish a process by which we schedule courses into common blocks of time by default and there is a process by which exceptions are discussed and authorized if appropriate.

The Room Optimizer

The Room Optimizer is designed to make the room assignment process much faster, helps to find the most appropriate space using user-defined scheduling parameters, and provides an opportunity to experiment with scheduling scenarios that would be extremely difficult using manual scheduling. By adjusting the combination of optimization parameters, academic scheduling preferences, and seat fill-versus-preference priority settings, a user may test the tradeoff between different scheduling objectives. By creating one or many schedules, we can experiment and compare results to build our schedule and test possible scenarios.

The Room Assignment Optimizer analyzes section data and assigns rooms in a specific order to maximize assignments while still meeting as many constraints as possible.

The process to run the optimizer is as follows:

1. Determine Sections to Schedule

The optimizer must determine the scope of sections that are to be processed during the optimization. Factors that determine sections to be scheduled include:

- Selected source data
- Selected term(s)
- Sections not flagged to be ignored or arranged
- If user has opted to “Keep Existing Room Assignments” then sections with existing assignments are eliminated
- Optimizer user filters further narrow section range
- If user opts to pre-process hard constraints or back-to-back instructors, then determine applicable sections and prioritize them
- User security (to what sections does the user have edit access?)

2. Determine Rooms to Schedule

The optimizer must determine what rooms may be considered for scheduling for each section during the optimization. Factors for room selection include:

- Rooms not flagged “Do Not Optimize”
- Rooms not flagged “Arranged Section”
- Rooms not flagged “May Not Schedule”
- Rooms not flagged “May Be Shared”
- Rooms are a campus match for sections in question
- Rooms are not blocked by room control during the dates being scheduled
- Rooms are available based on applied existing production and/or sandbox conflicts
- Rooms are included in user filters applied for optimization
- User security (for what rooms does the user have schedule permission?)

3. Score Rooms for Each Section

The optimizer must determine what rooms may be scheduled for each section based on preferences and hard filters using the same method as the ad hoc room scheduling tool. Each feasible room is then scored using the room scoring method.

4. Determine the Order of Section Scheduling

The optimizer must determine the order in which sections will be scheduled. The following steps determine the order of scheduling:

1. Group sections by time of day and day of week
2. Sort these groups from largest to smallest
3. Sort the sections within the time/day groups by the number of suitable rooms from lowest to highest

This sorting process creates a list of sections in order by the most common meeting pattern and then by the most constraints within the patterns. This helps to create the most efficient use of space while still meeting as many scheduling constraints as possible. In other words, sections utilizing the most common blocks of time but with the most scheduling restrictions are scheduled first.

5. Schedule Rooms

The optimizer must assign rooms to section records in the order determined above. The system will attempt to assign each section record a room from its list of suitable rooms in score order, first checking for conflicts and evaluating back-to-back and cross-list scheduling scenarios as applicable.

Initial Room Rules

An initial set of rules were built using a customized Excel workbook. A meeting was held with each division to go over the proposed rules. The rules were then entered into Ad Astra for a preliminary run (See Appendix 3 on Page 46 for a list of the initial rules). Unfortunately, all of the preliminary rules were composed and entered into the single instance of Ad Astra Schedule before the decision was made to split off the system into a separate instance for each college. Within the original system (pre-split) the system could not differentiate between center facilities and main campus facilities. Therefore, no rules were created for the centers. When the system was split off, Ad Astra manually re-keyed our rules into the new instance (not a good week to be an intern at Ad Astra) because the system does not have the capacity to import or export rules built into the system.

Building the Logic Behind Room Preference Rules

The creation of a first draft of Room Preference Rules began with a historical evaluation of how rooms had been scheduled over FA18 and SP18. Find the ARC historical scheduling room analysis that was used to evaluate how rooms have been utilized at <http://bit.ly/2Tib3FD>. Next, a tool was built with macros in Excel to mimic how rules are built in Ad Astra and also produced a “plain language” version of the rule to assist in vetting rules. Some examples of the “Plain Language Rules:”

- Sections on the ARC Main campus; regardless of meeting type; scheduled in the FASHN designator; for all courses; for all faculty are: Preferred to be scheduled in the Arts & Science 105 or Arts & Science 111 rooms;
- Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections of PMED 130; for all faculty are: REQUIRED to be scheduled in the Child Development Center 100 room;

The results of this analysis was a draft of 178 rules to be entered into Ad Astra (see the draft of rules in Appendix 3 on page 46). Interviews were held with each division dean and the division staff who worked on scheduling to evaluate the proposed rules. Feedback was then incorporated into the rules entered into Ad Astra. Several of the rules were combined as they were entered into Ad Astra (particularly the rules excluding particular rooms that had been developed department by department could be collapsed into single rules containing all of the exclusions). This resulted in an Ad Astra Rule set of 143 rules.

The preliminary work to develop rules in Ad Astra was done in the original single instance of the system (before the four colleges were split off and before we had a solution to schedule centers as separate campuses). Thankfully, Ad Astra was able to rekey in our preference rule from the initial instance into our new ARC-specific instance (there is no import tool so this had the potential of being an epic setback for the project implementation). At the Ad Astra user’s conference we learned that a college of ARC’s size generally has between 300 and 600 preference rules for a robust optimizer run, so it is very likely that as we refine our needs the number of rules will increase.



DECISION 13: The initial set of rules were set up through a historical analysis of how sections have been scheduled and through discussions with deans and division office staff—the intention was to create the preliminary list of rules as a start for the further refinement of the rules through broader conversations with departments.



NEXT STEP 13: The preliminary implementation of the system has focused upon building rules for ARC Main Campus facilities; we will need to build out rules for our centers.

NEXT STEP 14: There will need to be a series of optimization runs in the system sandbox to help refine the rules. The process will be to run an optimization on a data from the FA18 and SP19 terms, compare the recommended room placements with what had been actually scheduled, identify where the system has recommended inappropriate rooms, “tune” the rules to correct, and repeat.



Business Practice 13: Establish a process by which preference rules are evaluated and updated appropriately.

Configuring Ad Astra: Astra Platinum Analytics

Ad Astra's Platinum Analytics is a tool that analyzes historical enrollment patterns, student academic history, degree audit system rules, pathways, and information from Student Experience Lifecycle systems (SEL) to forecast the number of seats and sections a campus should be offering for upcoming terms. Platinum Analytics should help us to utilize their own student and course offering data to determine how to provide a course schedule that will meet student need, thereby improving retention and graduation rates and overall student success.

Data provided by the Platinum Analytics analysis enables institutions to make adjustments to a roll-forward schedule that can positively impact students' ability to graduate on time, and ensure more efficient use of available resources. Performing an analysis run in advance of the schedule development period will allow for earlier and improved planning by academic departments and administrators. Reevaluating the sections and seats per course that are needed each term helps to free underutilized space that can be used for higher-demand courses. This reallocation of resources not only addresses space bottlenecks, but also allows current students the opportunity to graduate sooner while making room for growing enrollments.

Examples of high impact schedule changes include:

- Adding a course offering so seniors can graduate on time · Removing an unneeded course offering to free up faculty resources to teach an important undersupplied course
- Adding a course offering of an undersupplied course in non-primetime to best utilize classroom space and maximize enrollment ratios
- Changing an offering time to correspond with the availability of the students who need it most
- Changing an offering time to reduce conflicts between other required courses that students need to take in a given term (this will be available in a future release)

Platinum Analytics currently uses three types of data to predict student demand for courses and forecast the number of students who have a likelihood of registering for a course in the upcoming (analysis) term. Steps in the Analytics process include:

1. Build course sections for an upcoming term (roll forward or new) in your student information system
2. Import data including sections, students, and degree audit information
3. Perform historical and program analysis
4. Analyze proposed offerings with Platinum Analytics data
5. Review results and determine high impact changes that may require schedule adjustment
6. Produce final schedule or repeat process during the scheduling cycle

Identifying Exclusions



DECISION 14: The first step to configuring Ad Astra was to identify which sections to exclude from the analysis. For example, we have a number of performance classes (MUP and TAP) which will always be under-enrolled at the start of a semester and would throw off analytics being performed. In addition for the preliminary run of data, WAC and RAD sections, Apprenticeship sections, and Safety Center sections were also excluded.

Degree Patterns, Pathways, GE Patterns, and a SEL (oh My!)

Degree Patterns: Ad Astra imported our degree paths from the information that is currently housed in PeopleSoft (this is the degree audit data which was configured in order to verify Federal Financial Aid rules, so it is relatively clean and correct.

Pathways: The system will be able to import the pathways that are being developed to help predict what students will need to take if they have identified that they are on a particular pathway. We have had preliminary conversations with Ad Astra and provided them examples of some of the currently approved pathways. In addition, Ad Astra has provided us some table structures that they use in order to assist us with any digital pathway tools that we are developing (both to assist students in exploring pathways and to assist in crafting them).

GE Patterns: Ad Astra has been provided with a table containing all of our GE options and is configuring the system to take them into account.

Student Experience Lifecycle (SEL): The district is finalizing the purchase of a SEL system intended to provide high quality student support in a mobile friendly environment and allow the colleges to track and monitor a student's journey through potential candidate, pre-application, pre-enrollment, enrollment, completion and alumnus status. Ad Astra will be integrated with the SEL in order to capture this data and assist in predicting what students need in future schedules.

First run of Analytics

The preliminary run of the analytics were presented to the college on September 28th. A copy of this presentation is available at <http://bit.ly/2P4NLzO>. This is a preliminary run of using historical data and ensuring that our data is correctly "cross walked" between PeopleSoft and Ad Astra. Platinum Analytics is both a software product and a consulting service. Part of the product is bi-weekly calls with an analytics coach to discuss trends, goals, and indicators within our data. There are two major decisions that we will need to make moving forward which will determine how we work with our data coach: our Enrollment Goals as well as the Key Performance Indicators (KPI) which we will use to measure these goals.



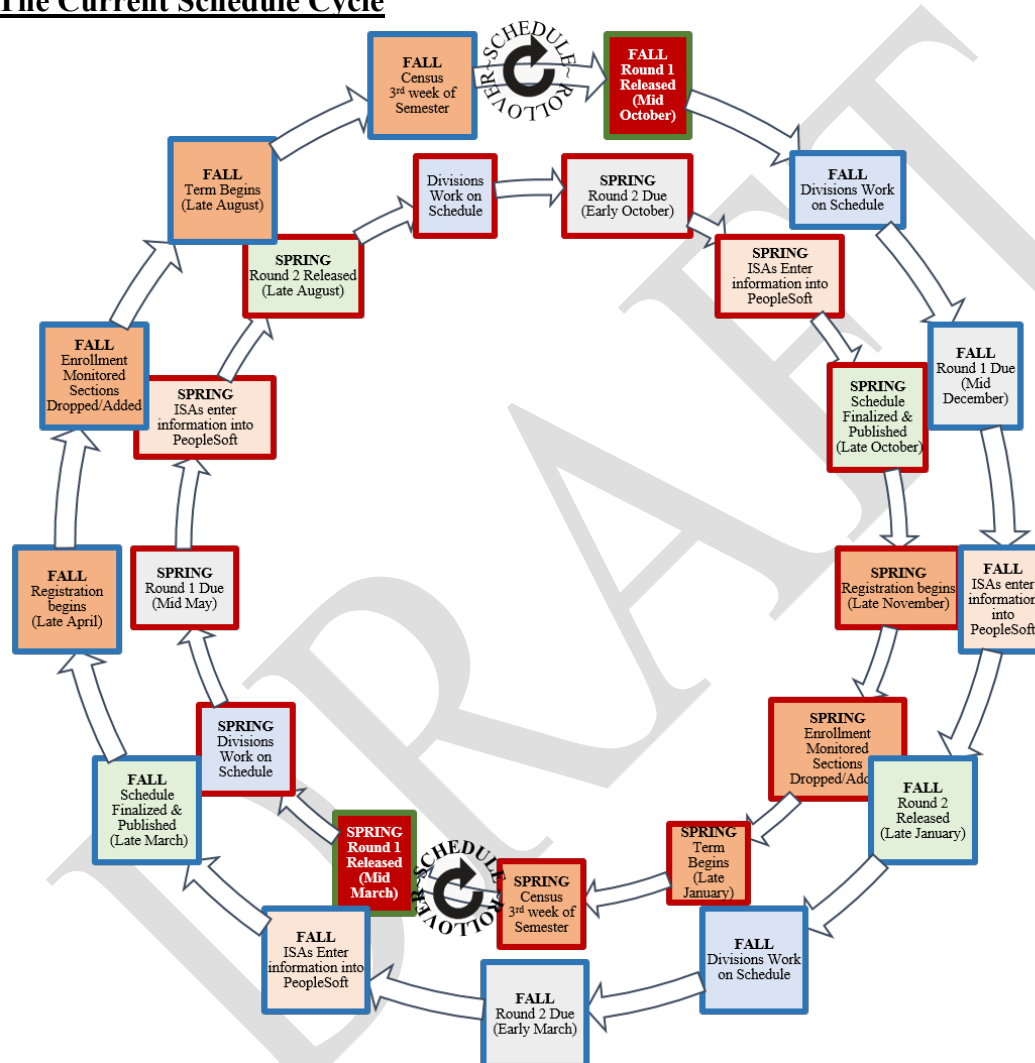
Next Step 15: Develop ARC's scheduling goals and KPIs to measure the goals success. Three potential goals might be:

- Improve Student satisfaction and Retention
- Ensure timely student program completion / Increase productive credit hour loads for students
- Address scheduling issues which contribute to the performance gap in our students.

Identifying Business Practices

One common theme was raised by all of the companies presenting to the district committee that was tasked with selecting the Enterprise Level Scheduling System: a software system, no matter how well programmed, accurate, or predictive can create a good schedule or fix bad business processes. The process of collecting our data and explaining our business practices has presented several opportunities for ARC to consider how we might embrace the disruption of introducing this software to redesign and recast our business practices surrounding how we craft a schedule.

The Current Schedule Cycle



The Roll-Over Query



Scheduling is a cyclical process which begins with the roll-over of the previous like term (Fall-to-Fall, Spring-to-Spring, and Summer-to-Summer). This is accomplished through a **PeopleSoft Rollover Query** that takes all active (i.e. non-cancelled) courses in a schedule at the semester census date (per Title 5 the third week of the semester) and creates a new draft term with those sections. In discussions with District IT we have identified the Roll-

Over Query as the biggest potential business practice change that we can work on to update our scheduling procedures. Rather than rolling over all sections that were live at census, we will begin to develop a more nuanced set of rollover queries which capture a number of scheduling interests:

- Establishing what the “core” schedule for each term type may be. For example, 38% of the FA15, FA16, FA17, and FA18 schedules consisted of courses which were scheduled with the same Start Time, End Time, and Day Pattern. For the Spring semester, 41% of sections scheduled SP15, SP16, Sp17, and Sp18 are similarly consistent. (To see a list of these identified courses for Fall and Spring, go to <http://bit.ly/2RfBs5w>)
- Establishing the rotational offerings—those courses which may be offered every other semester (or some other pattern). Identifying the pattern by which courses are offered would have several benefits: we could publish (and promise) that specific components of programs would be offered within a specific time period (i.e. “This course is always offered every Sprint term with an odd-year”), we could build timelines into pathways because we would potentially know what would be offered and when, we can drive demand for occasionally offered sections (i.e. “If you are interested in taking this course, take it next semester as it will not be offered again for two more semesters”), et cetera.

The ARC Enrolment Management Committee

A primary recommendation from Ad Astra in the implementation of their software is for colleges to develop an Enrolment Management Committee. This committee will be placed within the ARC Governance structure under the Student Success Council. The current proposal is that the work of the ELSS Task Group (which was originally chartered to select and assist in configuring the scheduling software system) will transition into the work of the Enrollment Management Group. This will involve a new charter proposal which will be crafted for Spring 2019 and potential membership shifts. The Enrollment Management Committee will be involved in:

- Analyzing the Rollover Queries to ensure that we are keeping the correct courses as a part of our “core” schedule and that the rotational offerings allow for students to complete programs in a timely fashion.
- Evaluation of FTE needs and demand driven shifts which may need to occur.
- Maintaining rules and other systems within Ad Astra.
- Curating reports and data sets to drive scheduling conversations.



NEXT STEP 16: Work to clarifying and identifying the “core schedule to be built into the rollover queries.

NEXT STEP 17: Work to clarify the rotational courses. This will create a need for identifying multiple rollover queries (e.g. Fall 1, Fall 2, Spring 1, Spring 2, etcetera).

NEXT STEP 18: Craft Enrollment Management Committee charter and submit it to the Student Success Council.



BUSINESS PRACTICE 14: Develop a process to evaluate and modify the “core” offerings in the rollover queries before they are run each term.

BUSINESS PRACTICE 15: Develop a process to evaluate and modify rotational course offerings in rollover queries before they are run each term.

Scheduling: Round 1 Where We’ve Been

The draft schedule which was generated from the is then sent to the campus ISAs who then release out the **Round 1 Draft** to the divisions. The first Round of the schedule is generally released in Mid-October for the Fall and Summer term planning cycles and Mid-March for the Spring term planning cycle.

Each division at ARC proceeds with Round 1 slightly differently:

- Some divisions split the drafts by department into separate paper versions of the schedule and distribute them to departments for discussion and revisions.

- Some divisions split the drafts by department into Excel versions of the schedule and distribute them to departments for discussion and revisions.
- Some divisions split the drafts by department into Google Document versions of the schedule and distribute them to departments for discussion and revisions.
- For the first round some divisions remove all names from the rolled over schedule, others remove only the adjuncts, while others leave all of the names intact.
- Hide columns within the documents to provide a cleaner interface for faculty to interact with.
- Set the spreadsheets up with restricted data fields which allow information to be entered through dropdowns (keeping consistency in the data).
- Set up calculation fields on the spreadsheets to track faculty loads as names are dropped into the schedule.
- At this point (before distribution) several deans noted that they are performing a slight scrub of the schedule (removing under-performing sections, shifting class times, and holding back a certain amount of FTE to provide a cushion for additional changes that may come later in the process). These changes are often driven by internally generated research (manually compiled longitudinal enrollment data culled from crystal reports) and a hefty amount of intuition as to what is going to work and what is not.

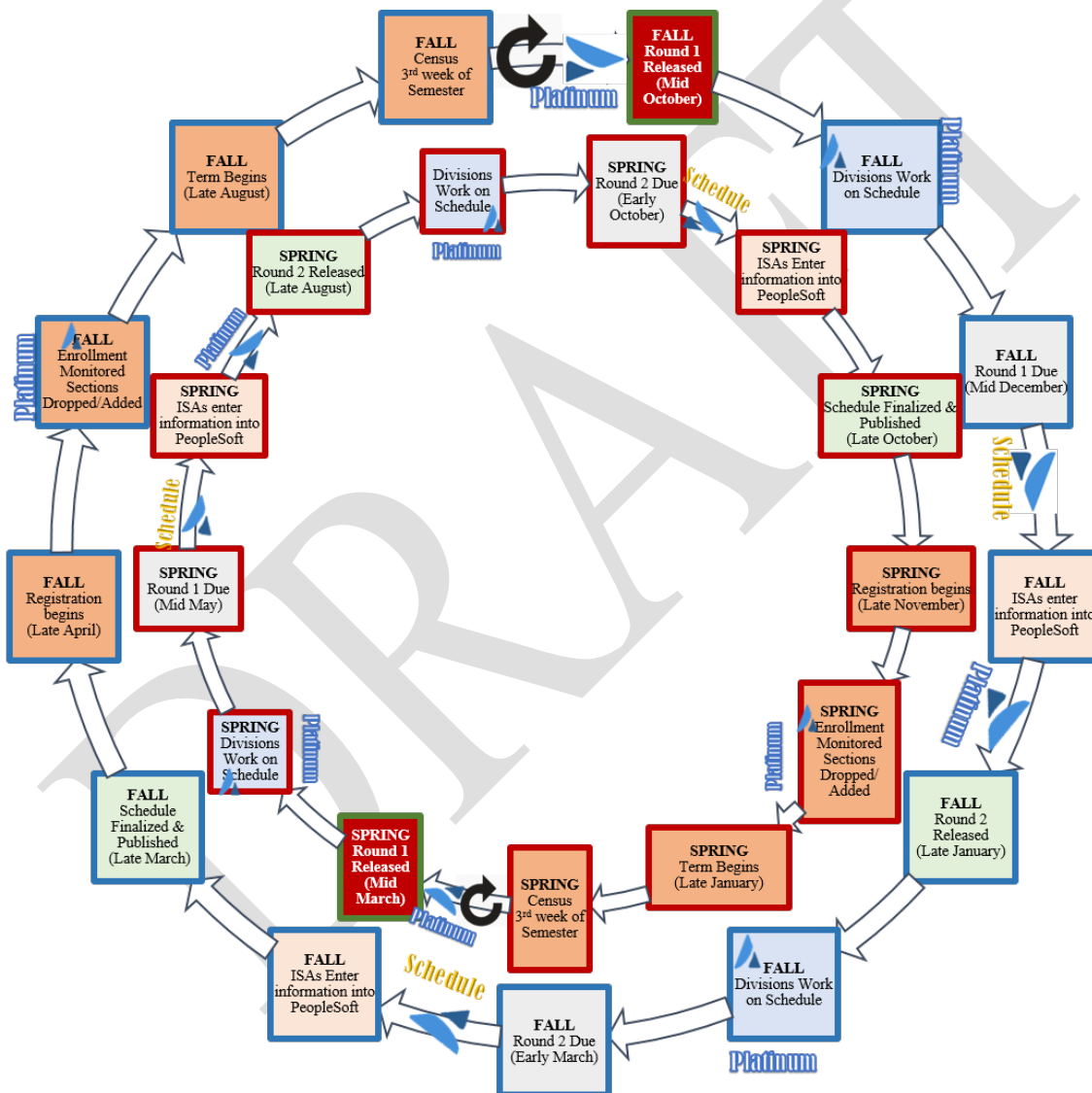
The setting up of the first round sheets is very labor intensive, manual, and duplicative in nature (often doing the same thing over and over again to “scrub” the data and prepare it for distribution. Several divisions are using the home-grown SMART system (an Access database) with another home-grown product ChartMaker in order to make room charts. This requires a lot of data-scrubbing to clean up the crystal reports and allow them to work within the system—it is also often prone to breaking down when district changes report structures.

Several divisions then distribute the first round sheets digitally to the departments for discussion (some still send out paper copies and ask the chairs to make their changes by hand—because there have been issues in faculty correctly noted changes on the digital forms). On the digital copies, faculty are supposed to note any changes highlighted in yellow, deletions with a strikethrough, and additions highlighted in green. Different divisions assign faculty to classes in different manners: Math utilizes a randomized four semester process to cycle through which full-timer selects their sections first; English goes by seniority, and other departments often leave it to the chairs to make suggestions on who should staff sections. In some cases the department chairs working with the department suggest which full-timers to schedule, but the adjuncts are assigned by the dean.

There are several programs around the college which have specific cohort needs, identified rotations of offerings, required class sizes, et cetera (several externally accredited programs, especially in Health). There are other programs which have identified the sequence of how their courses should be offered, but these sequences are not a restrictive (or informative) part of any scheduling system—they often exist as documents on individuals’ computers. It is also extremely difficult to plan out (and see) schedules for cohorts of students which cross divisions. Since each division schedules in this initial round on local systems, others cannot see what they are working on.

When the first round sheets are returned to the division offices there is an attempt to check for broad errors (room conflicts, overlaps on faculty schedules, correct amount of instructional minutes, et cetera).—the problem is that much of this is quite difficult to “see” on the spreadsheets and there is a high degree of reliance upon the ISAs to catch issues and errors. There are also often issues where faculty have missed highlighting changes and they may not be caught by the ISAs who are manually entering in the first-round schedule into PeopleSoft.

The timelines for creating our schedules will not radically shift with the introduction of Ad Astra. Much of the data provided is still reliant upon students behaviors (their *intentional* behavior: identifying majors or paths and their *behavioral* behaviors: what students actually enroll in and how they do in these classes). Platinum Analytics provides two passes at the data in an attempt to predict what students will need. Shortly after the Census date, it looks back at historical data to predict what might be needed in the next like term. The second pass at the data comes after grades are turned in and the system can look to see what students passed (or did not pass), what they are taking in the current term, and what they need in the next term—this data is run in the start of the prior term (so the second round of predictive analytics is run at census of the prior Spring term).



- 1) The initial run of predictive data (shortly after census) will be used to help inform modifying the Rollover query and will then be used as the divisions
- 2) When departments submit their first round, Ad Astra Schedule will be run to assign rooms to

- those sections added into the schedule (those in addition to the “core” courses),
- 3) Early in the next term (the term directly proceeding the one being planned for), the second round of predictive analytics will be run and this data will be used to inform decisions made by divisions, departments, and the college Enrolment Management Committee.
 - 4) After the second round is submitted by the divisions, Ad Astra Schedule will be used to optimize the remaining unscheduled sections into appropriate rooms.
 - 5) As enrollment opens to students, Ad Astra will be set up to distribute enrollment reports to assist in monitoring how sections are filling (and to assist any additions or reductions which may be necessary).



DECISION 15: One major concern that still remains is what the precise workflow process will be for the end users (deans and department chairs). While AD Astra does present a powerful suite of tools for room optimization and for performing historical and predictive analytics to help drive discussions about what should be scheduled, it may not be as robust in terms of providing a user-friendly interface for department chairs and deans to utilize for the scheduling rounds. We have begun investigating a third product, [Digarc Section](#), to see if this product might assist with this. In addition, we’re working with Ad Astra to identify how other schools use their system for this “last mile” of scheduling.



NEXT STEP 19: Identify appropriate reports and datasets to distribute to department chairs to assist in scheduling decisions.

NEXT STEP 20: Identifying potential reports and other practices that we may use with Ad Astra in order to process scheduling. The system, currently, only is able to write rooms back to PeopleSoft—so if divisions/departments are scheduling within Ad Astra Platinum Analytics, how do we process this workflow in a manner which does not throw us back into a series of hand-keyed, siloed, paper driven systems.

NEXT STEP 21: Consider whether or not we may need to purchase another interface product, such as Digarc Section, to provide efficient workflow in our scheduling process.



BUSINESS PRACTICE 16: Establish the Enrollment Management Committee’s role in managing scheduling decisions.

BUSINESS PRACTICE 17: Establish business practices on how we will use these systems in the scheduling of our terms.

Exceptions to the Process

There are three notable exceptions to the process starting with the first round sheets coming from the ISAs: Natomas, McClellan, and Math.

Natomas has a goal is to get their first round out to the divisions a month before the ISAs send out the division first rounds. During the first week or so of the semester the Natomas dean will pull crystal report along with current room charts. The dean then goes through and looks at certain priority items (things like Art classes that have to be in a certain classroom, sections that require computer labs, the ACE program eats up classrooms Tues-Thurs, CECA eats up daytime classes, MMLC run in LRC as well as WAC and RAD classes). After that, look at scheduling blocks and entry and exit points and begin to lay in sections according to those blocks and to try and maximize student ability to take a diversity of GE courses throughout the schedule. All of this is done by hand: starting with the crystal spreadsheets and then to room charts. After the dean has done this work by hand, it is handed off to the Administrative Assistant who then has to create the Natomas First Round documents (tracking the changes made by the dean against the original crystal report in yellow). These documents are then distributed to the campus divisions for their changes (with a separate color scheme to track changes provided by the campus).

At the McClellan center, classes are scheduled a year in advance. The Public Safety off campus center relies on the division offices to staff GE courses. Dialogue consists of discussions between Deans as to

what and how courses will meet student objectives, educational goals, and maximize enrollment. Past enrollments and certificate/specific courses are considered when scheduling occurs. Mostly, courses are scheduled to accommodate instructor priority staffing requirements. Most of the McClellan classes are not staffed until after the schedule is publicly available to students, except for Administration of Justice and Fire Tech. courses – these are exclusive to the Public Safety Center. The process used at the SRPSTC/McClellan Center is extremely rudimentary. Because the center schedules two types of classes they are not currently able to integrate with PeopleSoft and utilize SharePoint. Each classroom is scheduled separately from the actual course scheduling by a second person. To locate an open classroom one must open each calendar page for every classroom until one is located. It is time consuming and inefficient. In order to accommodate course offerings, they make standard certain classroom space for specific courses. This is not particularly efficient in that class size varies and generally becomes significantly reduced which can lead to underutilization of larger classrooms.



NEXT STEP 22: The installation of As Astra has primarily been focused upon the Main campus. We will need to work with our centers to customize and configure the system to match their needs.

Events and non-course related room scheduling
STILL NEED TO WRITE THIS!

DRAFT

Appendix 1: ELSS Task Group Charter

Project Team: Enterprise-Level Scheduling Solution

Project Type: Implementation

Project Duration: 2018 -2019

Sponsoring Council: Student Success Council

PROJECT BACKGROUND AND NEED (Why is the project necessary?)

One of the goals defined in the District's 2016 Strategic Plan was to "establish effective pathways that optimize student access and success." ARC's Strategic Plan (Goal 1, Strategy 2) calls for ARC to "Implement improved class scheduling system to better meet student needs." The Enterprise Level Scheduling Solution (ELSS) project will advance this goal through the implementation of a sophisticated class scheduling system with tools that enable pathway implementation through data-informed scheduling. Additionally, the technologies employed are expected to support non-academic facility scheduling, optimize space utilization, and inform enrollment management activities.

- ARC does not have an existing standardized technological tool for facility or instructional scheduling.
- The existing paper, email, and spreadsheet-enabled processes are inefficient and error prone.
- Self-service room reservation system is not available.
- Insufficient data is easily accessible to those involved in decision-making
- Data informed scheduling practices are essential to the success of program pathways and the college's strategic goals related to redesigning the student experience.

PROJECT PURPOSE AND SCOPE (What is the project expected to encompass? What are the boundaries?)

In the Spring of 2018 Los Rios selected Ad Astra to be the scheduling software system to be used by all four Los Rios colleges. The Enterprise-Level Scheduling Solution Project Team is the implementation team to make recommendations on how the system will be configured, recommend changes to room numbering/names in order to ensure clarity for students, and establishing best practices, procedures, access levels, and protocols for how best to utilize the scheduling system to meet ARC Scheduling goals.

- To fully implement the Ad Astra System at American River College in our instructional and event scheduling.
 - Establish workflows with room, event, and instructional scheduling within the Ad Astra System.
 - Establish training materials and processes for different levels of Ad Astra users. Boundaries:
 - This project will be focusing upon the installation, configuration, and operational protocols of the scheduling software, not building ARC's Academic schedules.
 - The Ad Astra Scheduler product currently only writes room changes back to PeopleSoft. The Platinum Analytics product prepares a more holistic set of recommendations on schedule changes, but is unable to write those changes back to PeopleSoft. The team will need to evaluate how a business practice may be built to maximize the information provided by these systems without creating cumbersome workloads.
-

PROJECT OBJECTIVES (What is the project expected to achieve?)

Successful completion of this project is intended to achieve the following objectives:

- 1) Recommendations on changes that might be necessary to room numbers and names and processing of those recommendations (if approved) into both the Ad Astra and PeopleSoft systems.
- 2) Protocols and procedures for scheduling within the Ad Astra System.
- 3) Recommendations on security levels within the Ad Astra System (who has action to view, edit, and add scheduling information).
- 4) Protocols and recommendations on utilizing the analytics within the Ad Astra system.
- 5) Identify and develop additional technological infrastructures needed to support scheduling within the Ad Astra system.

PROJECT DELIVERABLES (What items will be produced during the project?)

Deliverables to be completed and/or submitted for approval:

- 1) Fully configured Ad Astra system for use in Event and Educational scheduling at American River College.
- 2) Training materials and procedures for different levels of Ad Astra users.

SUCCESS INDICATORS (How will success be measured or determined?)

The project will be considered successful when:

- 1) ARC has created a functional event scheduling procedure with the corresponding forms, web pages, and processes in place for all event scheduling within Ad Astra at ARC.
- 2) ARC has improved data integrity and transparency related to scheduling data and facility usage.
- 3) ARC has created an updated and clear building name and numbering inventory that is aligned in Ad Astra and PeopleSoft.
- 4) ARC has created user permissions and protocols in place for scheduling Instructional courses within Ad Astra at ARC.
- 5) ARC has created the technological infrastructure to hand off to the Enrollment Management group scheduled to be constituted in Spring 2019.

All of these indicators can be thoroughly accomplished through completion of the stated project objectives.

PROJECT ASSUMPTIONS (What conditions are believed to exist?)

The project team was authorized based on the following assumptions:

- The implementation of Ad Astra is being managed by the District Office and the choices made to configure the system are driven by the needs of all four Los Rios Colleges.
- This team is working on establishing the infrastructure, protocols, and systems incumbent in instituting the Ad Astra software suite (*Scheduler* and *Platinum Analytics*), not how ARC's schedule is to be built.
- The Ad Astra *Scheduler* product currently only writes room changes back to PeopleSoft. The *Platinum Analytics* product prepares a more holistic set of recommendations on schedule changes, but is unable to write those changes back to PeopleSoft. The team will need to evaluate how a business practice may be built to maximize the information provided by these systems without creating cumbersome workloads.
- The timing of the implementation is dependent on the districtwide progress.
- Facility changes and construction projects during implementation will need to be considered in order to maintain the building/room data in Astra Schedule from the point of the initial import to the point that the system becomes operational.
- There will be an intersection with ARC's guided pathways work because of the configurations that will need to occur within the Ad Astra Platinum Analytics system to best predict student demand in scheduling.

PROJECT RISKS, CONSTRAINTS, OR DEPENDENCIES (What factors might impact the project? How might the project intersect with the internal or external environment including other projects?)

The project team should be aware of the following known risks, constraints, and/or dependencies:

- This is a district implementation and while there will be elements of the system that we will be able to configure for ARC there will be others that will be limited by needing to work for all four Los Rios Colleges.
- We will be identifying the boundaries of the Ad Astra system and pushing our scheduling framework to fully utilize the current system to its maximum potential. We will also need to identify where the system does not go far enough and advocate for updates and enhancements to the system in order to maximize scheduling efficiency at ARC.
- We may be constrained in developing innovative processes and procedures by scheduling requirements from the State of California, as well as potential data structure limitations in PeopleSoft and Ad Astra.

OTHER CONSIDERATIONS (What are the anticipated implications related to equity and inclusion; research and data; district policies and regulations; district and/or college-wide practices; college-wide cross-functional relationships; and resource needs such as staffing, workload, technology, and space/facilities?)

- As the scheduling frameworks, protocols, and procedures are developed within Ad Astra we will need to integrate disproportionate Impact data into the decision making processes (something that Ad Astra currently does not process or track) as well as other data points that maximize our ability to schedule appropriate courses/events in regards to our strategic plan.
- As the workflows and protocols are developed regarding the usage of Ad Astra Scheduler and Platinum Analytics, it will be necessary to assess potential changes in job responsibilities, how work is done (e.g. paper vs. electronic systems), and/or the workload involved with event scheduling and academic scheduling
- New availability of data will assist in the ability to assess facility usage and needs and will necessitate an evaluation of perceptions of space ownership vs. effective space utilization.
- One byproduct of discarding the siloed, paper-centric scheduling system is that it will allow for greater collaboration across divisions because of accessibility of data.

PROJECT TIMELINE/KEY MILESTONES

Month(s)	PROJECT PHASE	FOCUS/MAJOR TASKS
	Initiation	Project initiation and charter development
Aug '18	Preparation	Project planning; team scheduling; initial research and discovery; preparation for kickoff
Aug '18-June '19	Team-Based Work	Participate in districtwide efforts to implement, test, and launch Astra Schedule and Platinum Analytics.
June '19	Formal Review	Review and adoption of deliverables through governance processes
June '19	Closure	Celebrate the project team's work and archive artifacts of the project

Planned Governance Flow of Deliverables

Meeting Date	Council	Desired Outcome
October 16	Student Success Council (demo)	<input type="checkbox"/> 1 st Reading <input type="checkbox"/> 2 nd Reading – Recommendation to _____
November 11	Student Success Council (Prelim Configuration and Operational Protocols of Ad Astra)	<input checked="" type="checkbox"/> 1 st Reading <input type="checkbox"/> 2 nd Reading - Recommendation to _____
December 4	Student Success Council (Prelim Configuration and Operational Protocols of Ad Astra)	<input type="checkbox"/> 1 st Reading <input checked="" type="checkbox"/> 2 nd Reading – Information to ELT
February 4	Executive Leadership Team (Prelim Configuration and Operational Protocols of Ad Astra)	<input type="checkbox"/> 1 st Reading <input type="checkbox"/> 2 nd Reading – Recommendation to _____
March 5	Student Success Council (FINAL Configuration and Operational Protocols of Ad Astra)	<input checked="" type="checkbox"/> 1 st Reading <input type="checkbox"/> 2 nd Reading - Recommendation to _____
March 19	Student Success Council (FINAL Configuration and Operational Protocols of Ad Astra)	<input type="checkbox"/> 1 st Reading <input checked="" type="checkbox"/> 2 nd Reading – Recommendation to ELT
April 1	Executive Leadership Team (FINAL Configuration and Operational Protocols of Ad Astra)	<input checked="" type="checkbox"/> 1 st Reading <input type="checkbox"/> 2 nd Reading – Recommendation to _____
May 6	Executive Leadership Team (FINAL Configuration and Operational Protocols of Ad Astra)	<input type="checkbox"/> 1 st Reading <input checked="" type="checkbox"/> 2 nd Reading – Recommendation to PES

Standard Description of Project Stages

Project Stages	Description
Initiation	Activities leading to the authorization and chartering of a project team
Preparation	Activities which occur once a team is authorized and can be conducted independently to plan, schedule, and setup the project (project management steps)
Team-Based Work	Activities which occur in a collaborative environment in which the project team works based on the scope of the charter
Formal Review	Activities by which deliverables are submitted to the sponsoring council for formal approval; may involve a sequence of governance review including ELT and/or other entities; formal review may result in acceptance of the deliverables; request for the project team to revisit the design/refinement stages; or abandonment of the project
Closure	Activities to celebrate the success of the project and archive the artifacts of the work completed

PROJECT ORGANIZATION, ROLES, AND RESPONSIBILITIES

Role	Responsibilities
Project Leads	<ul style="list-style-type: none"> Prepares, leads, and follows up on meetings (see details of the Role of the Chair in the <i>ARC Governance Framework</i>) Communicates the project to various stakeholders, and when appropriate, solicits feedback on draft deliverables through informal review processes Submits the final deliverables to the sponsoring council for approval
Project Steward <i>(may be one of the leads or a separate individual)</i>	<ul style="list-style-type: none"> Manages the project on behalf of the sponsoring council Drafts the charter in consultation with the sponsoring council's chairs Conducts preliminary research to gather information on promising practices, product options, or other relevant materials to inform the project Develops a work plan based on the charter to organize, sequence, and schedule the work of the project team within the available time frame Reports progress to the sponsoring council Maintains and archives project documentation at the conclusion of the project Assists the project leads as needed
Team Members	<ul style="list-style-type: none"> Participates in all project meetings and activities Supplies valuable knowledge and perspective (often based on the individual's responsibilities or role at ARC) May be assigned specific project tasks to complete outside of project meetings Assists with the "heavy lifting" that is required to accomplish the project deliverables
External Consultant <i>(optional)</i>	<ul style="list-style-type: none"> Provides expertise and assistance from an external (non-ARC) perspective
Executive Sponsor <i>(optional)</i>	<p>Large, high-impact projects only:</p> <ul style="list-style-type: none"> Champions the project from the executive level to secure buy-in and ensure viability Communicates project purpose and vision Allocates appropriate resources to support effective development, execution, and institutionalization Maintains awareness of project status and helps mitigate risk Mediates conflicts and facilitates dialogue to resolve project issues Assumes other responsibilities as appropriate based on the project scope

Please see Appendix A for a complete roster of the membership for each specified role.

PROJECT STAKEHOLDERS (Who has a vested interest in the project? Who will it impact?)

- ☒ Sponsoring Council ☒ Project Team (including leads and members) ☒ Project Steward
- ☐ Academic Senate ☐ Associated Student Body ☐ Classified Senate ☐ PES ☐ Management beyond PES
- ☐ Instruction ☐ Student Services ☐ Administrative Services
- ☐ Specific departments or other entities:

COMMUNICATION PLAN (How will information be shared with the stakeholders?)

Based on the previously stated stakeholder list, the general plan for sharing project information is as follows:

Communicated By	Audience	Frequency	Purpose
Project Steward	Sponsoring Council	Monthly	Regular update of project status
Project Lead (Admin)	SLT/Deans Council	Monthly	Regular update of project status
Project Lead (Faculty)	Academic Senate	Monthly	Regular update of project status
Project Lead (Classified)	Classified Senate	Monthly	Regular update of project status

Conflict Resolution

Any matter of significance which cannot be resolved by the project leads may be referred to the appropriate administrator (typically the chair of the sponsoring council) or to the President's Executive Staff (PES). Any significant change in charter scope will require approval of a revised charter by the Executive Leadership Team (ELT).

APPENDIX A: PROJECT MEMBERSHIP

PROJECT TEAM		
	Name of Participant	Role at the College
Project Lead	Kale Braden	AVPI & LR
Project Co-Lead	Dyne Eifertsen	Instructional Faculty, Music (FAA)
Project Co-Lead	Kevyn Montano	Lead ISA
Note Taker	Kevin Porter	Staff
Member	Linda Zarzana	Instructional Faculty, Science
Member	Joe Rust	Counseling Faculty
Member	Tony Giusti	Instructional Faculty/Participant in District Tool Selection
Member	TBD	Instructional Faculty, CTE
Member	TBD	Instructional Faculty, English or Math
Member	Lydia Engelsgaard	Instructional Svcs Assist II, Workforce
Member	TBD	Research Office
Member	Erika Wescoatt	Operations Clerk
Member	Diana Hicks	Dean, Instructional Area
Member	Steve Segura	Dean, McClellan Center
Member	Cheryl Sears	Director of Administrative Services

OTHER ROLES	
Project Steward*	Kale Braden
External Consultant(s)	
Executive Sponsor <i>(high-impact projects only)</i>	Lisa Lawrenson

*May be one of the project leads or a separate individual

Appendix 2: Excluded Rooms

Excluded Rooms	Description	Criteria 1	Criteria 2
Adaptive P.E. 101	Adaptive P.E.	No instructional furniture (Open Classroom)	Specialty equipment that precludes normal class dynamics
Arts & Sci 105	Fashion Classroom	Specialty equipment that precludes normal class dynamics	
CDC WEST 100	EMT and PMED Classroom	Specialty Lab/Impacted Program	
CDC WEST 140	EMT and PMED Classroom	Specialty Lab/Impacted Program	
CDC East 350	Child Development Center East	Safety/Legal Concerns	
Fine Arts 501	Sculpture Room	No instructional furniture (Open Classroom)	Specialty equipment that precludes normal class dynamics
Fine Arts 502	Ceramics Lab	No instructional furniture (Open Classroom)	Specialty equipment that precludes normal class dynamics
Fine Arts 503	Art Gallery	No instructional furniture (Open Classroom)	Specialty equipment that precludes normal class dynamics
Fine Arts 504	2D Art Classroom	Specialty equipment that precludes normal class dynamics	
Fine Arts 508	Photo Wet Lab	Safety/Legal Concerns	Specialty equipment that precludes normal class dynamics
Fine Arts 510	Art Drawing Classroom	No instructional furniture (Open Classroom)	Specialty equipment that precludes normal class dynamics
Fine Arts 513	Piano Lab	Specialty equipment that precludes normal class dynamics	
Fine Arts 515	Acting Classroom	No instructional furniture (Open Classroom)	Specialty equipment that precludes normal class dynamics
Fine Arts 519	Men's Dressingroom	No instructional furniture (Open Classroom)	Specialty equipment that precludes normal class dynamics
Fine Arts 526	Piano and Music Technology Classroom	Specialty equipment that precludes normal class dynamics	
Fine Arts 536A	Recording Studio A	No instructional furniture (Open Classroom)	Specialty equipment that precludes normal class dynamics
Fine Arts 537A	Recording Studio B	No instructional furniture (Open Classroom)	Specialty equipment that precludes normal class dynamics
Fine Arts 548	Band Room	No instructional furniture (Open Classroom)	Specialty equipment that precludes normal class dynamics
Fine Arts 550	Studio 2 Theatre	No instructional furniture (Open Classroom)	Specialty equipment that precludes normal class dynamics

Enterprise Level Scheduling System Fall 2018 Report: Appendix 2, Excluded Rooms

Fine Arts 554	Costume Shop	No instructional furniture (Open Classroom)	Specialty equipment that precludes normal class dynamics
Fine Arts 580	Evangelisti Dining Room (Oak Café)	No instructional furniture (Open Classroom)	Specialty equipment that precludes normal class dynamics
Fine Arts 583	Ettore's European Bakery Training Lab	No instructional furniture (Open Classroom)	Specialty equipment that precludes normal class dynamics
Fine Arts 584	Sacramento Bee Demonstration Kitchen	No instructional furniture (Open Classroom)	Specialty equipment that precludes normal class dynamics
Fine Arts 592	SMUD Innovation Kitchen ("Pro Kitchen")	No instructional furniture (Open Classroom)	Specialty equipment that precludes normal class dynamics
Fine Arts 594	Dos Coyotes "Beginning Kitchen"	No instructional furniture (Open Classroom)	Specialty equipment that precludes normal class dynamics
Fine Arts THEATRE	Theatre	No instructional furniture (Open Classroom)	Specialty equipment that precludes normal class dynamics
GYM STAGE	Gym Stage	No instructional furniture (Open Classroom)	Specialty equipment that precludes normal class dynamics
HeaEd 714	HeEd South Nursing Lab	Specialty Lab/Impacted Program	
HeEd Portable 702	Mortuary Classroom	Safety/Legal Concerns	Specialty equipment that precludes normal class dynamics
LRC 143	LRC Reading Classroom	Specialty Lab/Impacted Program	
LRC ESL	LRC ESL Center	Specialty Lab/Impacted Program	
LRC RAD	LRC Reading Across Discipline	Specialty Lab/Impacted Program	
LRC READ CNTR	ARC Main LRC Reading Center	Specialty Lab/Impacted Program	
LRC WAC	LRC Writing Across Discipline	Specialty Lab/Impacted Program	
Mather 001	Mather	Safety/Legal Concerns	Specialty equipment that precludes normal class dynamics
Mather 002	Mather	Safety/Legal Concerns	Specialty equipment that precludes normal class dynamics
Mather 003	Mather	Safety/Legal Concerns	Specialty equipment that precludes normal class dynamics
Mather 004A	Mather	No instructional furniture (Open Classroom)	Specialty equipment that precludes normal class dynamics
Mather 004B	Mather	No instructional furniture (Open Classroom)	Specialty equipment that precludes normal class dynamics
PHYS ED 205	Physical Education	No instructional furniture (Open Classroom)	Specialty equipment that precludes normal class dynamics
PHYS ED 206	Physical Education	No instructional furniture (Open Classroom)	Specialty equipment that precludes normal class dynamics

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PHYS ED 231A	Physical Education	No instructional furniture (Open Classroom)	Specialty equipment that precludes normal class dynamics
PHYS ED 235	Physical Education	No instructional furniture (Open Classroom)	Specialty equipment that precludes normal class dynamics
PHYS ED 236	Physical Education	No instructional furniture (Open Classroom)	Specialty equipment that precludes normal class dynamics
PHYS ED Baseball Field	Beaver Baseball Field	No instructional furniture (Open Classroom)	No instructional furniture (Open Classroom)
PHYS ED Football Field	Beaver Football Practice Field	No instructional furniture (Open Classroom)	No instructional furniture (Open Classroom)
PHYS ED MAIN GYM	Physical Education	No instructional furniture (Open Classroom)	No instructional furniture (Open Classroom)
PHYS ED POOL	Swimming Pool	Specialty equipment that precludes normal class dynamics	Specialty equipment that precludes normal class dynamics
PHYS ED PRACT GYM	Physical Education	No instructional furniture (Open Classroom)	Specialty equipment that precludes normal class dynamics
PHYS ED Soccer	Beaver Soccer Practice Field	No instructional furniture (Open Classroom)	No instructional furniture (Open Classroom)
Portable 604B	MMLC Center	Specialty Lab/Impacted Program	
Science 401	Science Chemistry	Specialty equipment that precludes normal class dynamics	
Science 403	Science Chemistry	Specialty equipment that precludes normal class dynamics	
Science 405	Science Chemistry	Specialty equipment that precludes normal class dynamics	
Science 406	Science Chemistry	Specialty equipment that precludes normal class dynamics	
Science 407	Science Chemistry	Specialty equipment that precludes normal class dynamics	
Science 408	Science Chemistry	Specialty equipment that precludes normal class dynamics	
Science 411	Science: Anatomy & Physiology Lab	Specialty equipment that precludes normal class dynamics	
Science 412	Science Biology	Specialty equipment that precludes normal class dynamics	
Science 414	Science Biology	Specialty equipment that precludes normal class dynamics	
Science 415	Science Biology	Specialty equipment that precludes normal class dynamics	

Enterprise Level Scheduling System Fall 2018 Report: Appendix 2, Excluded Rooms

Science 416	Science Biology	Specialty equipment that precludes normal class dynamics	
Science 418	Science Biology	Specialty equipment that precludes normal class dynamics	
Science 493	Science Biology	Specialty equipment that precludes normal class dynamics	
Tech Ed 308	Tech Ed	No instructional furniture (Open Classroom)	Specialty equipment that precludes normal class dynamics
Tech Ed 320	Tech Ed	No instructional furniture (Open Classroom)	Specialty equipment that precludes normal class dynamics
Tech Ed 323	Electronics Shop	No instructional furniture (Open Classroom)	Specialty equipment that precludes normal class dynamics
Tech Ed 324	Tech Ed	No instructional furniture (Open Classroom)	Specialty equipment that precludes normal class dynamics
Tech Ed 326	Tech Ed	No instructional furniture (Open Classroom)	Specialty equipment that precludes normal class dynamics
Tech Ed 330A	Automotive Shop	Safety/Legal Concerns	Specialty equipment that precludes normal class dynamics
Tech Ed 330B	Automotive Shop	Safety/Legal Concerns	Specialty equipment that precludes normal class dynamics
Tech Ed 332A	Welding Shop	Safety/Legal Concerns	Specialty equipment that precludes normal class dynamics
Tech Ed 332B	Welding Shop	Safety/Legal Concerns	Specialty equipment that precludes normal class dynamics
Tech Ed 333A	Automotive Shop	Safety/Legal Concerns	Specialty equipment that precludes normal class dynamics
Tech Ed 333B	Automotive Shop	Safety/Legal Concerns	Specialty equipment that precludes normal class dynamics
Tech Ed 333C	Automotive Shop	Safety/Legal Concerns	Specialty equipment that precludes normal class dynamics
Tech Ed 333E	Tech Ed	Specialty equipment that precludes normal class dynamics	

Appendix 3: Draft of Room Rules

Rule #	Plain Language Rules	Mode	Override?
1	Sections on the ARC Main campus; of the meeting type LEC; regardless of subject designator; for all courses; for all faculty are: Preferred to be scheduled in the Classroom room type	Normal Mode	NO
<i>Fine and Applied Arts</i>			
2	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for ART 327, ART 328, ART 329, and ART 420 courses; for all faculty are: REQUIRED to be scheduled in the Fine Arts 504 room;	Required Mode	NO
3	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections of Art 320; for all faculty are: Preferred to be scheduled in the Fine Arts 504, Arts & Science 101, or Arts & Science 111 rooms;	Normal Mode	NO
4	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for ART 370, ART 372, and ART 376 courses; for all faculty are: REQUIRED to be scheduled in the Fine Arts 501 room;	Required Mode	NO
5	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for ART 390 and ART 391 courses; for all faculty are: REQUIRED to be scheduled in the Fine Arts 502 room;	Required Mode	NO
6	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the Fine Arts 503 room;	Exclude Mode	NO
7	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections of ART 444; for all faculty are: REQUIRED to be scheduled in the Fine Arts 503 room;	Required Mode	YES
8	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections of ART 442; for all faculty are: Preferred to be scheduled in the Fine Arts 503 or Fine Arts 510 rooms;	Normal Mode	YES
9	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for ART 300, ART 302, ART 304, ART 305, ART 306, ART 323, ART 336, ART 337, ART 361, ART 375, ART 440, ART 443, ART 445, and ARTNM 370 courses; for all faculty are: REQUIRED to be scheduled in the Fine Arts 510 or Arts & Science 101 rooms;	Required Mode	NO
10	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections of ARTH 300; for sections scheduled for XXXXXX,XXXX are: REQUIRED to be scheduled in the Fine Arts 504 room;	Required Mode	NO
11	Sections on the ARC Main campus; regardless of meeting type; scheduled in the ARTH designator; for all courses; for all faculty are:	Normal Mode	NO

Rule #	Plain Language Rules	Mode	Override?
	Preferred to be scheduled in the Classroom room type; Preferred to be scheduled in the Raef Hall region;		
12	Sections on the ARC Main campus; regardless of meeting type; scheduled in the ARTPH designator; for all courses; for all faculty are: REQUIRED to be scheduled in the Fine Arts 508 room;	Required Mode	NO
13	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections of ARTPH 498; for all faculty are: EXCLUDED from being scheduled in the Fine Arts 508 room;	Exclude Mode	YES
14	Sections on the ARC Main campus; regardless of meeting type; scheduled in the ARTNM designator; for all courses; for all faculty are: REQUIRED to be scheduled in the Fine Arts 505 room;	Required Mode	NO
15	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for ARTNM 370 and ARTNM 320 courses; for all faculty are: REQUIRED to be scheduled in the Arts & Science 101 or Fine Arts 510 rooms;	Required Mode	YES
16	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections of ARTNM 305; for all faculty are: REQUIRED to be scheduled in the Classroom room type; Preferred to be scheduled in the 1st Floor Davies, 2nd Floor Davies, Raef Hall, or Arts & Science regions;	Normal Mode	YES
17	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections of ARTNM 498; for all faculty are: EXCLUDED from being scheduled in the Fine Arts 505 room;	Exclude Mode	YES
18	Sections on the ARC Main campus; regardless of meeting type; scheduled in the FASHN designator; for all courses; for all faculty are: Preferred to be scheduled in the Arts & Science 105 or Arts & Science 111 rooms;	Normal Mode	NO
19	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for FASHN 320, FASHN 330, FASHN 357, FASHN 358, FASHN 359, FASHN 362, FASHN 363, FASHN 374, FASHN 378, FASHN 379, FASHN 393, and FASHN 398 courses; for all faculty are: REQUIRED to be scheduled in the Arts & Science 105 room;	Required Mode	NO
21	Sections on the ARC Main campus; of the meeting type LEC; scheduled in the HM designator; for all courses; for all faculty are: Preferred to be scheduled in the Fine Arts 507 room;	Normal Mode	NO
21	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the Fine Arts 580 room;	Exclude Mode	NO
22	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject	Required Mode	YES

Rule #	Plain Language Rules	Mode	Override?
	designator; for all sections of HM 370; for all faculty are: REQUIRED to be scheduled in the Fine Arts 580 room;		
23	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the Fine Arts 583 room;	Exclude Mode	NO
24	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for HM 320, HM 325, and HM 330 courses; for all faculty are: REQUIRED to be scheduled in the Fine Arts 583 room;	Required Mode	YES
20	Sections regardless of campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the Fine Arts 584 room;	Exclude Mode	NO
20	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; of the meeting type LEC; scheduled in the HM designator; for all courses; for all faculty are: Preferred to be scheduled in the Fine Arts 584 room;	Normal Mode	YES
25	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections of HM 498; for all faculty are: REQUIRED to be scheduled in the Fine Arts 584 room;	Required Mode	YES
25	Sections regardless of campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the Fine Arts 592 or Fine Arts 594 rooms;	Exclude Mode	NO
26	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections of HM 101; for all faculty are: REQUIRED to be scheduled in the Fine Arts 592 or Fine Arts 594 rooms;	Required Mode	YES
27	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for HM 150, HM 155, HM 165, HM 180, and HM 360 courses; for all faculty are: REQUIRED to be scheduled in the Fine Arts 592 room;	Required Mode	YES
28	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections of HM 315; for all faculty are: REQUIRED to be scheduled in the Fine Arts 594 room;	Required Mode	YES
29	Sections on the ARC Main campus; regardless of meeting type; scheduled in the IDES designator; for all courses; for all faculty are: REQUIRED to be scheduled in the Arts & Science 111 room;	Required Mode	NO
30	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for MUFHL 300, MUFHL 308, MUFHL 310, MUFHL 311, MUFHL 315, MUFHL 330, MUIVI 310, MUIVI 311, MUIVI 320, and MUIVI 321 courses; for all faculty are:	Required Mode	NO

Rule #	Plain Language Rules	Mode	Override?
	Preferred to be scheduled in rooms with the Music Piano feature; REQUIRED to be scheduled in the Fine Arts 512 room;		
31	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the Fine arts 513 or Fine Arts 526 rooms;	Exclude Mode	NO
32	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for MUFHL 321, MUFHL 400, MUFHL 411, MUFHL 420, and MUFHL 421 courses; for all faculty are: REQUIRED to be scheduled in the Fine Arts 513 or Fine Arts 526 rooms;	Required Mode	YES
33	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for MUIVI 340, MUIVI 341, MUIVI 350, MUIVI 385, and MUIVI 386 courses; for all faculty are: REQUIRED to be scheduled in the Fine Arts 513 room;	Required Mode	YES
34	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for MUP 350, MUP 352, MUP 360, MUP 361, MUIVI 200, MUSM 334, MUSM 356, MUSM 357, MUIVI 400, and MUIVI 401 courses; for all faculty are: REQUIRED to be scheduled in the Fine Arts 547 room;	Required Mode	YES
35	Sections regardless of campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the Fine Arts 548 room;	Exclude Mode	NO
36	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for MUIVI 390 and MUIVI 391 courses; for all faculty are: REQUIRED to be scheduled in the Fine Arts 548 room;	Required Mode	YES
37	Sections on the ARC Main campus; regardless of meeting type; scheduled in the MUP designator; for all courses; for all faculty are: REQUIRED to be scheduled in the Fine Arts 548 room;	Required Mode	NO
38	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for MUSM 110, MUSM 111, MUSM 120, and MUSM 121 courses; for all faculty are: Preferred to be scheduled in the Fine Arts 512, Fine Arts 536A, or Fine Arts 547 rooms;	Normal Mode	NO
39	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the Fine Arts 536A room;	Exclude Mode	NO
40	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for MUSM 344, MUSM 350, and MUSM 352	Required Mode	YES

Rule #	Plain Language Rules	Mode	Override?
	courses; for all faculty are: REQUIRED to be scheduled in the Fine Arts 536A room;		
41	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the Fine Arts 536A or Fine Arts 537A rooms;	Exclude Mode	NO
42	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for MUSM 112, MUSM 113, and MUSM 342 courses; for all faculty are: REQUIRED to be scheduled in the Fine Arts 537A room;	Required Mode	YES
43	Sections on the ARC Main campus; of the meeting type LEC; scheduled in the TA and TAFILM designators; for all courses; for all faculty are: Preferred to be scheduled in the Classroom room type; Preferred to be scheduled in the Fine And Applied Arts, Raef Hall, 1st Floor Davies, or 2nd Floor Davies regions; Preferred to be scheduled in the Fine Arts 514 room;	Normal Mode	NO
44	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the Fine Arts 515 room;	Exclude Mode	NO
44	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for TA 344, TA 375, and TA 356 courses; for all faculty are: REQUIRED to be scheduled in the Fine Arts 515 room;	Required Mode	YES
45	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for TA 350 and TA 351 courses; for all faculty are: Preferred to be scheduled in the Fine Arts 515 room;	Normal Mode	YES
45	Sections regardless of campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the Fine Arts 519 room;	Exclude Mode	NO
46	This is an 'Override Rule' that over rides the rule above it. Sections regardless of campus; regardless of meeting type; regardless of subject designator; for all sections of TA 437; for all faculty are: REQUIRED to be scheduled in the Fine Arts 519 room;	Required Mode	YES
47	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the Fine Arts 550 room;	Exclude Mode	NO
48	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for TA 370, TA 377, and TA 406 courses; for all faculty are: REQUIRED to be scheduled in the Fine Arts 550 room;	Required Mode	YES

Rule #	Plain Language Rules	Mode	Override?
49	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for TA 350 and TA 351 courses; for all faculty are: Preferred to be scheduled in the Fine Arts 550 room;	Normal Mode	YES
50	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the Fine Arts 554 room;	Exclude Mode	NO
51	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for TA 404, TA 430, TA 433, TA 434, and FASHN 378 courses; for all faculty are: REQUIRED to be scheduled in the Fine Arts 554 room;	Required Mode	YES
52	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the Theatre THEATRE room;	Exclude Mode	NO
53	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; scheduled in the TAP designator; for all courses; for all faculty are: Preferred to be scheduled in the Theatre THEATRE room;	Normal Mode	YES
BSS			
54	Sections on the ARC Main campus; regardless of meeting type; scheduled in the ANTH designator; for all courses; for all faculty are: Preferred to be scheduled in the 1st Floor Davies, 2nd Floor Davies, or Raef Hall regions; Preferred to be scheduled in the Davies Hall 202, Davies Hall 203, Davies Hall 225, or Raef Hall 160 rooms;	Normal Mode	NO
55	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections of ANTH 301; for all faculty are: REQUIRED to be scheduled in the Davies Hall 202 room;	Required Mode	NO
56	Sections on the ARC Main campus; regardless of meeting type; scheduled in the ECON designator; for all courses; for all faculty are: Preferred to be scheduled in the 1st Floor Davies region; Preferred to be scheduled in the Davies Hall 106, Davies Hall 114, or Davies Hall 116 rooms;	Normal Mode	NO
57	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections of ECON 320; for all faculty are: REQUIRED to be scheduled in the Library 002 room;	Required Mode	NO
58	Sections on the ARC Main campus; regardless of meeting type; scheduled in the GERON designator; for all courses; for all faculty are: Preferred to be scheduled in the 1st Floor Davies or 2nd Floor Davies regions; Preferred to be scheduled in the Davies Hall 103, Davies Hall 106, Davies Hall 111, Davies Hall 113, or Davies Hall 114 rooms;	Normal Mode	NO
59	Sections on the ARC Main campus; regardless of meeting type; scheduled in the HIST designator; for all courses; for all faculty are: Preferred to be scheduled in the 1st Floor Davies or 2nd Floor Davies regions;	Normal Mode	NO

Rule #	Plain Language Rules	Mode	Override?
	Preferred to be scheduled in the Davies Hall 105, Davies Hall 208, Davies Hall 219, or Davies Hall 223 rooms;		
60	Sections on the ARC Main campus; regardless of meeting type; scheduled in the HSER designator; for all courses; for all faculty are: Preferred to be scheduled in the 1st Floor Davies or 2nd Floor Davies regions; Preferred to be scheduled in the Davies Hall 103 room;	Normal Mode	NO
61	Sections on the ARC Main campus; regardless of meeting type; scheduled in the IS designator; for all courses; for all faculty are: Preferred to be scheduled in the 1st Floor Davies region; Preferred to be scheduled in the Davies Hall 107 room;	Normal Mode	NO
62	Sections on the ARC Main campus; regardless of meeting type; scheduled in the LA designator; for all courses; for all faculty are: Preferred to be scheduled in the 1st Floor Davies or 2nd Floor Davies regions; Preferred to be scheduled in the Davies Hall 107, Davies Hall 112, Davies Hall 113, Davies Hall 204, or Davies Hall 223 rooms;	Normal Mode	NO
63	Sections on the ARC Main campus; regardless of meeting type; scheduled in the POLS designator; for all courses; for all faculty are: Preferred to be scheduled in the 1st Floor Davies or 2nd Floor Davies regions; Preferred to be scheduled in the Davies Hall 107 or Davies Hall 116 rooms;	Normal Mode	NO
64	Sections on the ARC Main campus; regardless of meeting type; scheduled in the PSYC designator; for all courses; for all faculty are: Preferred to be scheduled in the 1st Floor Davies, 2nd Floor Davies, Raef Hall, or Portable Village regions; Preferred to be scheduled in the Davies Hall 111, Davies Hall 112, Davies Hall 113, Davies Hall 204, Portable 609A, Raef Hall 160, Raef Hall 161, or Raef Hall 162 rooms;	Normal Mode	NO
65	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections of PSYC 311; for all faculty are: REQUIRED to be scheduled in the Davies Hall 202 room;	Required Mode	NO
66	Sections on the ARC Main campus; regardless of meeting type; scheduled in the SOC designator; for all courses; for all faculty are: Preferred to be scheduled in the 1st Floor Davies or 2nd Floor Davies regions; Preferred to be scheduled in the Davies Hall 112, Davies Hall 113, Davies Hall 200, or Davies Hall 203 rooms;	Normal Mode	NO
Counseling			
67	Sections on the ARC Main campus; regardless of meeting type; scheduled in the HCD designator; for all courses; for all faculty are: Preferred to be scheduled in the Classroom room type; Preferred to be scheduled in the 1st Floor Davies, Portable Village , Raef Hall, or Health & Education-South regions;	Required Mode	NO
English			
68	Sections on the ARC Main campus; regardless of meeting type; scheduled in the ENGCW, ENGED, ENGLT, and ENGWR designators; for all courses; for all faculty are: Preferred to be scheduled in the 1st Floor Davies, 2nd Floor Davies, or Portable Village regions;	Normal Mode	NO

Rule #	Plain Language Rules	Mode	Override?
	Preferred to be scheduled in the Davies Hall 101, Davies Hall 205, Davies Hall 224, Davies Hall 225, Davies Hall 226, or Portable 612 rooms;		
69	Sections regardless of campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the Learning Resource Center READ CNTR room;	Exclude Mode	NO
70	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections of ENGRD 111; for all faculty are: REQUIRED to be scheduled in the Learning Resource Center READ CNTR room;	Required Mode	YES
71	Sections regardless of campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the Learning Resource Center WAC room;	Exclude Mode	NO
72	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections of ENGRD 306; for all faculty are: REQUIRED to be scheduled in the Learning Resource Center WAC room;	Required Mode	YES
73	Sections regardless of campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the Learning Resource Center READ 143 room;	Exclude Mode	NO
74	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections of ENGRD 314; for all faculty are: REQUIRED to be scheduled in the Learning Resource Center READ 143 room;	Required Mode	YES
75	Sections regardless of campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the Learning Resource Center RAD room;	Exclude Mode	NO
76	This is an 'Override Rule' that over rides the rule above it. Sections regardless of campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for ENGRD 315 and ENGRD 316 courses; for all faculty are: REQUIRED to be scheduled in the Learning Resource Center RAD room;	Required Mode	YES
Health Education			
77	Sections on the ARC Main campus; regardless of meeting type; scheduled in the AH, FSE, HCI, HLA, NURSE, PMED, and RC designators; for all courses; for all faculty are: Preferred to be scheduled in the Health & Education-South or Health & Education-North regions;	Normal Mode	NO
78	Sections on the ARC Main campus; regardless of meeting type; scheduled in the AH and NUTRI designators; for all courses; for all faculty are: Preferred to be scheduled in the Arts & Science 103 room;	Normal Mode	NO

Rule #	Plain Language Rules	Mode	Override?
79	Sections on the ARC Main campus; regardless of meeting type; scheduled in the AH designator; for all courses; for all faculty are: Preferred to be scheduled in the HeEd 710 room;	Normal Mode	NO
80	Sections on the ARC Main campus; regardless of meeting type; scheduled in the Nutri and SLPA designators; for all courses; for all faculty are: Preferred to be scheduled in the HeEd Portable 700 room;	Normal Mode	NO
79	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the Child Development Center 140 or Child Development Center 100 rooms;	Exclude Mode	NO
80	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; scheduled in the EMT designator; for all courses; for all faculty are: Preferred to be scheduled in the Child Development Center 100 or Child Development Center 140 rooms;	Normal Mode	YES
81	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for Nurse 310 and RC 140 courses; for all faculty are: REQUIRED to be scheduled in the Child Development Center 100 or Child Development Center 140 rooms;	Required Mode	YES
82	Sections on the ARC Main campus; regardless of meeting type; scheduled in the FSE designator; for all courses; for all faculty are: REQUIRED to be scheduled in the HeEd Portable 702 room;	Required Mode	NO
83	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for HCI 300, SLPA 105, SLPA 115, and SLPA 120 courses; for all faculty are: Preferred to be scheduled in the HeEd 710 room;	Normal Mode	NO
84	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for HCI 340 and HCI 350 courses; for all faculty are: REQUIRED to be scheduled in the HeEd 716 room;	Required Mode	NO
85	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections of PMED 130; for all faculty are: REQUIRED to be scheduled in the Child Development Center 100 room;	Required Mode	NO
86	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections of NURSE 100; for all faculty are: Preferred to be scheduled in the HeEd Portable 702 room;	Normal Mode	NO
87	Sections regardless of campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for NURSE 400, NURSE 410, NURSE 420, and SLPA 115 courses; for all faculty are: Preferred to be scheduled in the HeEd 710 or HeEd 713 rooms;	Normal Mode	NO

Rule #	Plain Language Rules	Mode	Override?
88	Sections regardless of campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the HeEd 714 room;	Exclude Mode	NO
89	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections of RC 122; for all faculty are: REQUIRED to be scheduled in the HeEd 714 room;	Required Mode	YES
Humanities			
90	Sections on the ARC Main campus; regardless of meeting type; scheduled in the DEAF, ESL, ESLG, ESLL, ESLR, ESLW, FREN, GERM, HUM, INTRP, ITAL, PHIL, RUSS, SPAN, and SPEECH designators; for all courses; for all faculty are: Preferred to be scheduled in the 1st Floor Davies or 2nd Floor Davies regions;	Normal Mode	NO
91	Sections on the ARC Main campus; regardless of meeting type; scheduled in the DEAF and INTRP designators; for all courses; for all faculty are: Preferred to be scheduled in the Davies Hall 102, Davies Hall 213, or Davies Hall 227 rooms;	Normal Mode	NO
92	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the Child Development Center 350 room;	Exclude Mode	NO
93	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; scheduled in the ECE designator; for all sections of any; for all faculty are: Preferred to be scheduled in the Child Development Center 350 room;	Normal Mode	YES
94	Sections regardless of campus; regardless of meeting type; scheduled in the ECE designator; for all courses; for all faculty are: Preferred to be scheduled in the HeEd Portable 700 or HeEd Portable 701 rooms;	Normal Mode	NO
95	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the Learning Resource Center ESL room;	Exclude Mode	NO
96	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for ESL 34, ESL 44, ESL 54, and ESL 94 courses; for all faculty are:	Required Mode	YES
97	Sections on the ARC Main campus; regardless of meeting type; scheduled in the ESL, ESLG, ESLL, ESLR, and ESLW designators; for all courses; for all faculty are: Preferred to be scheduled in the Davies Hall 110, Davies Hall 206, Davies Hall 209, Portable 601, Portable 610B, or Tech Ed 304 rooms;	Normal Mode	NO
98	Sections regardless of campus; regardless of meeting type; scheduled in the FREN, GERM, ITAL, RUSS, and SPAN designators; for all courses; for all faculty are: Preferred to be scheduled in the Davies Hall 217, Davies Hall 218, Davies Hall 221, or Davies Hall 228 rooms;	Normal Mode	NO

Rule #	Plain Language Rules	Mode	Override?
99	Sections on the ARC Main campus; regardless of meeting type; scheduled in the HUM designator; for all courses; for all faculty are: Preferred to be scheduled in the Davies Hall 201 room;	Normal Mode	NO
100	Sections on the ARC Main campus; regardless of meeting type; scheduled in the PHIL designator; for all courses; for all faculty are: Preferred to be scheduled in the Davies Hall 115 room;	Normal Mode	NO
101	Sections on the ARC Main campus; regardless of meeting type; scheduled in the SPEECH designator; for all courses; for all faculty are: Preferred to be scheduled in the Davies Hall 214 or Davies Hall 215 rooms;	Normal Mode	NO
LRC			
102	Sections on the ARC Main campus; regardless of meeting type; scheduled in the LRC designator; for all courses; for all faculty are: Preferred to be scheduled in the 1st Floor Davies or 2nd Floor Davies regions;	Normal Mode	NO
MATH			
103	Sections on the ARC Main campus; regardless of meeting type; scheduled in the Math and STAT designators; for all courses; for all faculty are: REQUIRED to be scheduled in the Arts & Science 102, Davies 104, Learning Resource Center 104, Portable 600, Portable 602A, Portable 602B, Portable 605, Portable 606, Portable 609B, Portable 610A, or Portable 611 rooms;	Required Mode	NO
104	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the Portable 604B room;	Exclude Mode	NO
105	This is an 'Override Rule' that over rides the rule above it. Sections regardless of campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: REQUIRED to be scheduled in the Portable 604B room;	Required Mode	YES
Kinesiology			
106	Sections on the ARC Main campus; regardless of meeting type; scheduled in the ADAPT designator; for all courses; for all faculty are: REQUIRED to be scheduled in the Adaptive P.E. 101 room;	Required Mode	NO
107	Sections regardless of campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the Physical Education POOL room;	Exclude Mode	NO
108	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for ADAPT 332, FITNS 316, FITNS 347, FITNS 441, FITNS 442, FITNS 443, SPORT 376, SPORT 410, and SPORT 415 courses; for all faculty are: REQUIRED to be scheduled in the Physical Education POOL room;	Required Mode	YES
109	Sections regardless of campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the Physical Education 235 room;	Exclude Mode	NO

Rule #	Plain Language Rules	Mode	Override?
110	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; scheduled in the DANCE designator; for all courses; for all faculty are: REQUIRED to be scheduled in the Physical Education 235 room;	Required Mode	YES
111	Sections regardless of campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the GYM STAGE room;	Exclude Mode	NO
112	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for ECE 414, DANCE 360, DANCE 361, FITNS 306, FITNS 395, FITNS 414, HEED 310, HEED 311, HEED 315, and HEED 323 courses; for all faculty are: REQUIRED to be scheduled in the GYM STAGE room;	Required Mode	YES
113	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the Physical Education 231A room;	Exclude Mode	NO
114	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for FITNS 306 and FITNS 307 courses; for all faculty are: REQUIRED to be scheduled in the GYM STAGE or Physical Education 231A rooms;	Required Mode	YES
115	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for FITNS 302, FITNS 303, and FITNS 308 courses; for all faculty are: Preferred to be scheduled in the Physical Education 231A room;	Normal Mode	YES
116	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the Physical Education PRACT GYM room;	Exclude Mode	NO
117	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for Adapt 335 and FITNS 414 courses; for all faculty are: REQUIRED to be scheduled in the GYM STAGE or Physical Education PRACT GYM rooms;	Required Mode	YES
118	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for KINES 300, KINES 330, KINES 400, and KINES 404 courses; for all faculty are: Preferred to be scheduled in the Physical Education 200E room;	Normal Mode	NO
119	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the Physical Education 205 room;	Exclude Mode	NO
120	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject	Required Mode	YES

Rule #	Plain Language Rules	Mode	Override?
	designator; for all sections scheduled for FITNS 321 and FITNS 325 courses; for all faculty are: REQUIRED to be scheduled in the Physical Education 205 room;		
121	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the Physical Education 206 room;	Exclude Mode	NO
122	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for FITNS 344, FITNS 345, FITNS 346, and FITNS 385 courses; for all faculty are: REQUIRED to be scheduled in the Physical Education 206 room;	Required Mode	YES
123	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections of SPORT 331; for all faculty are: Preferred to be scheduled in the Physical Education 206 room;	Normal Mode	YES
124	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the Physical Education 236 room;	Exclude Mode	NO
125	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for FITNS 343, FITNS 350, and FITNS 380 courses; for all faculty are: REQUIRED to be scheduled in the Physical Education 236 room;	Required Mode	YES
126	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the Physical Education FIELDS room;	Exclude Mode	NO
127	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for SPORT 300, SPORT 301, SPORT 350, SPORT 355, SPORT 365, and SPORT 366 courses; for all faculty are: REQUIRED to be scheduled in the Physical Education FIELDS room;	Required Mode	YES
128	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the Physical Education MAIN GYM room;	Exclude Mode	NO
129	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for FITNS 331, FITNS 400, PACT 300, PACT 350, PACT 351, PACT 352, PACT 390, PACT 391, PACT 393, SPORT 311, SPORT 312, SPORT 313, SPORT 314, SPORT 316, SPORT 317, SPORT 320, SPORT 325, SPORT 340, SPORT 341, SPORT 345, SPORT 351, SPORT 356, SPORT 386, SPORT 396, TMACT 302, TMACT 303, TMACT 304, TMACT 320, and TMACT 330 courses; for all faculty are: REQUIRED to be scheduled in the Physical Education MAIN GYM room;	Required Mode	YES
130	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject	Normal Mode	YES

Rule #	Plain Language Rules	Mode	Override?
	designator; for all sections scheduled for TMACT 331 and TMACT 333 courses; for all faculty are: Preferred to be scheduled in the Physical Education MAIN GYM or Physical Education PRACT GYM rooms;		
BCS			
131	Sections on the ARC Main campus; regardless of meeting type; scheduled in the ACCT and BUS designators; for all courses; for all faculty are: Preferred to be scheduled in the Comp-MathCmplx 406, Library 001, Library 002, or Tech Ed 326 rooms;	Normal Mode	NO
132	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections of ACCT 361; for all faculty are: REQUIRED to be scheduled in the Comp-MathCmplx 409 or Comp-MathCmplx 411 rooms;	Required Mode	NO
135	Sections on the ARC Main campus; of the meeting type LAB; scheduled in the BUSTEC designator; for all courses; for all faculty are: REQUIRED to be scheduled in the Comp-MathCmplx 408 room;	Required Mode	NO
136	Sections on the ARC Main campus; of the meeting type LEC; scheduled in the BUSTEC designator; for all courses; for all faculty are: REQUIRED to be scheduled in the Comp-MathCmplx 410 room;	Required Mode	NO
133	Sections on the ARC Main campus; regardless of meeting type; scheduled in the CISA designator; for all courses; for all faculty are: REQUIRED to be scheduled in the Comp-MathCmplx 409 or Comp-MathCmplx 411 rooms;	Required Mode	NO
134	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for CISA 126 and CISA 127 courses; for all faculty are: REQUIRED to be scheduled in the Comp-MathCmplx 410 room;	Required Mode	YES
135	Sections on the ARC Main campus; regardless of meeting type; scheduled in the CISC designator; for all courses; for all faculty are: REQUIRED to be scheduled in the Comp-MathCmplx 410 or Comp-MathCmplx 411 rooms;	Required Mode	NO
136	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for CISC 300, CISC 310, and CISC 350 courses; for all faculty are: Preferred to be scheduled in the Classroom room type; Preferred to be scheduled in the Math Complex region;	Normal Mode	YES
137	Sections on the ARC Main campus; regardless of meeting type; scheduled in the CISC designator; for all courses; for all faculty are: REQUIRED to be scheduled in the Comp-MathCmplx 410 or Comp-MathCmplx 411 rooms;	Required Mode	NO
138	Sections on the ARC Main campus; of the meeting type LEC; scheduled in the CISC designator; for all courses; for all faculty are:	Normal Mode	NO

Rule #	Plain Language Rules	Mode	Override?
	Preferred to be scheduled in the Comp-MathCmplx 406, Comp-MathCmplx 407, Comp-MathCmplx 408, or Comp-MathCmplx 410 rooms;		
139	Sections on the ARC Main campus; of the meeting type LAB; scheduled in the CISP designator; for all courses; for all faculty are: Preferred to be scheduled in the Comp-MathCmplx 408, Comp-MathCmplx 409, or Comp-MathCmplx 410 rooms;	Normal Mode	NO
140	Sections on the ARC Main campus; regardless of meeting type; scheduled in the CISS designator; for all courses; for all faculty are: REQUIRED to be scheduled in the Comp-MathCmplx 411 room;	Required Mode	NO
141	Sections on the ARC Main campus; regardless of meeting type; scheduled in the MKT designator; for all courses; for all faculty are: Preferred to be scheduled in the Library 001 or Library 002 rooms;	Normal Mode	NO
142	Sections on the ARC Main campus; regardless of meeting type; scheduled in the RE designator; for all courses; for all faculty are: Preferred to be scheduled in the 1st Floor Davies or Library Lower Level regions;	Normal Mode	NO
SCIENCE			
143	Sections on the ARC Main campus; regardless of meeting type; scheduled in the ASTR designator; for all courses; for all faculty are: REQUIRED to be scheduled in the Tech Ed 306 or Tech Ed 312 rooms;	Required Mode	NO
144	Sections on the ARC Main campus; of the meeting type LEC; scheduled in the BIOL designator; for all courses; for all faculty are: Preferred to be scheduled in the Arts & Science 104, Science 411, Science 412, Science 414, Science 415, Science 416, Science 418, Science 424, Science 426, Science 490, or Science 493 rooms;	Normal Mode	NO
145	Sections on the ARC Main campus; of the meeting type LAB; scheduled in the BIOL designator; for all courses; for all faculty are: REQUIRED to be scheduled in the Science 411, Science 412, Science 414, Science 415, Science 416, Science 418, Science 491, Science 492, or Science 493 rooms;	Required Mode	NO
146	Sections regardless of campus; regardless of meeting type; scheduled in the BIOT designator; for all courses; for all faculty are: REQUIRED to be scheduled in the Science 490 room;	Required Mode	NO
146	Sections on the ARC Main campus; of the meeting type LEC; scheduled in the CHEM designator; for all courses; for all faculty are: Preferred to be scheduled in the Arts & Science 104, Arts & Science 112, Science 401, Science 405, Science 420, or Science 422 rooms;	Normal Mode	NO
147	Sections on the ARC Main campus; of the meeting type LAB; scheduled in the CHEM designator; for all courses; for all faculty are: REQUIRED to be scheduled in the Science 401, Science 402, Science 403, Science 405, Science 406, Science 407, or Science 408 rooms;	Required Mode	NO
148	This is an 'Override Rule' that overrides the rule above it. Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for CHEM 83, CHEM 84, CHEM 86, and	Required Mode	YES

Rule #	Plain Language Rules	Mode	Override?
	CHEM 87 courses; for all faculty are: REQUIRED to be scheduled in the Arts & Science 104 or Arts & Science 112 rooms;		
149	Sections on the ARC Main campus; regardless of meeting type; scheduled in the ENGR designator; for all courses; for all faculty are: REQUIRED to be scheduled in the Tech Ed 310 or Tech Ed 312 rooms;	Required Mode	NO
150	Sections on the ARC Main campus; of the meeting type LEC; scheduled in the GEOG designator; for all courses; for all faculty are: REQUIRED to be scheduled in the Tech Ed 312, Science 422, Science 426, or Science 424 rooms;	Required Mode	NO
151	Sections on the ARC Main campus; of the meeting type LAB; scheduled in the GEOG designator; for all courses; for all faculty are: REQUIRED to be scheduled in the Tech Ed 312, Science 422, Science 426, or Science 425 rooms;	Required Mode	NO
152	Sections on the ARC Main campus; regardless of meeting type; scheduled in the GEOL designator; for all courses; for all faculty are: REQUIRED to be scheduled in the Science 424 or Science 425 rooms;	Required Mode	NO
153	Sections on the ARC Main campus; regardless of meeting type; regardless of subject designator; for all sections scheduled for Heed 300 and HEED 308 courses; for all faculty are: REQUIRED to be scheduled in the Tech Ed 303 or Tech Ed 312 rooms;	Required Mode	NO
154	Sections on the ARC Main campus; of the meeting type LAB; scheduled in the NATR designator; for all courses; for all faculty are: REQUIRED to be scheduled in the Environmental Resources 002 room;	Required Mode	NO
155	Sections on the ARC Main campus; of the meeting type LEC; scheduled in the NATR designator; for all courses; for all faculty are: Preferred to be scheduled in the Environmental Resources 002 room;	Normal Mode	NO
156	Sections on the ARC Main campus; of the meeting type LEC; scheduled in the PHYS designator; for all courses; for all faculty are: Preferred to be scheduled in the Tech Ed 305, Tech Ed 306, Tech Ed 307, or Tech Ed 325 rooms;	Normal Mode	NO
157	Sections on the ARC Main campus; of the meeting type LAB; scheduled in the PHYS designator; for all courses; for all faculty are: REQUIRED to be scheduled in the Tech Ed 305, Tech Ed 306, or Tech Ed 307 rooms;	Required Mode	NO
158	Sections on the ARC Main campus; regardless of meeting type; scheduled in the PS designator; for all courses; for all faculty are: REQUIRED to be scheduled in the Tech Ed 305 or Tech Ed 306 rooms;	Required Mode	NO
Tech Ed			
159	Sections regardless of campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the Mather 001, Mather 002, or Mather 003 rooms;	Exclude Mode	NO
160	This is an 'Override Rule' that over rides the rule above it. Sections regardless of campus; of the meeting type LEC; scheduled in the ACT	Required Mode	YES

Rule #	Plain Language Rules	Mode	Override?
	designator; for all courses; for all faculty are: REQUIRED to be scheduled in the Mather 001, Mather 002, or Mather 003 rooms;		
161	This is an 'Override Rule' that over rides the rule above it. Sections regardless of campus; of the meeting type LAB; scheduled in the ACT designator; for all courses; for all faculty are: REQUIRED to be scheduled in the Mather 002 room;	Required Mode	YES
162	Sections regardless of campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the Tech Ed 330A, Tech Ed 330B, Tech Ed 333A, Tech Ed 333B, Tech Ed 333C, Tech Ed 333D, Tech Ed 333D, or Tech Ed 333E rooms;	Exclude Mode	NO
163	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC Main campus; of the meeting type LEC; scheduled in the AT designator; for all courses; for all faculty are: REQUIRED to be scheduled in the Tech Ed 303, Tech Ed 323, Tech Ed 326, Tech Ed 333D, Tech Ed 333E, Tech Ed 334, Tech Ed 335, Tech Ed 336, or Tech Ed 337 rooms;	Required Mode	YES
164	This is an 'Override Rule' that over rides the rule above it. Sections on the ARC MAIn campus; of the meeting type LAB; scheduled in the AT designator; for all courses; for all faculty are: REQUIRED to be scheduled in the Tech Ed 330A, Tech Ed 330B, Tech Ed 333A, Tech Ed 333B, Tech Ed 333C, Tech Ed 333D, Tech Ed 333D, or Tech Ed 333E rooms;	Required Mode	YES
165	Sections regardless of campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the Mather 003, Mather 004A, or Mather 004B rooms;	Exclude Mode	NO
166	This is an 'Override Rule' that over rides the rule above it. Sections regardless of campus; of the meeting type LEC; scheduled in the DCDT designator; for all courses; for all faculty are: REQUIRED to be scheduled in the Mather 003, Mather 004A, or Mather 004B rooms;	Required Mode	YES
167	This is an 'Override Rule' that over rides the rule above it. Sections regardless of campus; of the meeting type LAB; scheduled in the DCDT designator; for all courses; for all faculty are: REQUIRED to be scheduled in the MATHER 004A or Mather 004B rooms;	Required Mode	YES
168	Sections regardless of campus; regardless of meeting type; scheduled in the DESGN designator; for all courses; for all faculty are: REQUIRED to be scheduled in the Tech Ed 309 or Tech Ed 391 rooms;	Required Mode	NO
169	Sections regardless of campus; of the meeting type LEC; scheduled in the ELECT designator; for all courses; for all faculty are: Preferred to be scheduled in the Tech Ed 321 or Environmental Resources 002 rooms;	Normal Mode	NO

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170	Sections regardless of campus; of the meeting type LAB; scheduled in the ELECT designator; for all courses; for all faculty are: REQUIRED to be scheduled in the Tech Ed 321 room;	Required Mode	NO
171	Sections regardless of campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the Tech Ed 308, Tech Ed 320, Tech Ed 320A, Tech Ed 323, Tech Ed 324, or Tech Ed 326 rooms;	Exclude Mode	NO
172	This is an 'Override Rule' that over rides the rule above it. Sections regardless of campus; of the meeting type LEC; scheduled in the ET designator; for all courses; for all faculty are: Preferred to be scheduled in the Environmental Resources 002, Tech Ed 308, Tech Ed 322, Tech Ed 323, Tech Ed 324, Tech Ed 325, or Tech Ed 326 rooms;	Normal Mode	YES
173	This is an 'Override Rule' that over rides the rule above it. Sections regardless of campus; of the meeting type LAB; scheduled in the ET designator; for all courses; for all faculty are: REQUIRED to be scheduled in the Tech Ed 308, Tech Ed 320, Tech Ed 320A, Tech Ed 323, Tech Ed 324, or Tech Ed 326 rooms;	Required Mode	YES
174	Sections regardless of campus; of the meeting type LEC; scheduled in the HORT designator; for all courses; for all faculty are: Preferred to be scheduled in the Environmental Resources 001, Environmental Resources 002, Tech Ed 323, Tech Ed 326, or Tech Ed 335 rooms;	Normal Mode	NO
175	Sections regardless of campus; of the meeting type LAB; scheduled in the HORT designator; for all courses; for all faculty are: REQUIRED to be scheduled in the Environmental Resources 001, Environmental Resources 002, or Tech Ed 335 rooms;	Required Mode	NO
176	Sections regardless of campus; regardless of meeting type; regardless of subject designator; for all courses; for all faculty are: EXCLUDED from being scheduled in the Tech Ed 332A or Tech Ed 332B rooms;	Exclude Mode	NO
177	This is an 'Override Rule' that over rides the rule above it. Sections regardless of campus; of the meeting type LEC; scheduled in the WELD designator; for all courses; for all faculty are: Preferred to be scheduled in the Tech Ed 303, Tech Ed 312, Tech Ed 326, Tech Ed 335, or Tech Ed 390 rooms;	Normal Mode	YES
178	This is an 'Override Rule' that over rides the rule above it. Sections regardless of campus; of the meeting type LAB; scheduled in the WELD designator; for all courses; for all faculty are: REQUIRED to be scheduled in the Tech Ed 303, Tech Ed 310, Tech Ed 312, Tech Ed 332A, or Tech Ed 332B rooms;	Required Mode	YES