Process Name • Master Course Scheduling

Overview of the Academic Affairs Master Course Scheduling Process

Purpose: To create a student centered course schedule in accordance with CNM's strategic directions on Centralized Scheduling which enables students to more effectively and efficiently reach their graduation goals.

Elements of a student centered schedule:

- Allow for program progression through back-to-back and sequenced course offerings within a term and term to term that helps students graduate in the least amount of time and facilitates effective space and resource allocation.
- Distribute course offerings across diverse days and times of the week to maximize offerings that enable students to create viable and conflict-free schedules.
- Align course offerings within and among the different academic schools and campuses to meet interdisciplinary needs of students.
- Adhere to a standardized set of course scheduling times for student planning purposes.

CNM Way Experts: The Academic Affairs Master Scheduling Office (MSO) will coordinate the process between the Academic schools, Enrollment Services, CNM campuses, and CNM Ingenuity, Inc.

Functional Units Involved: Master Scheduling Office (MSO), Academic schools, Enrollment Services, CNM campus administration, CNM Ingenuity, Inc.

Beginning of Process: Enrollment Services rolls the draft schedule for the current year into Banner sandboxes for the planning year.

End of Process: MSO Reports on the concluded academic year.

Definitions:

> Platinum Analysis – Astra Data Analysis
> Astra – Ad Astra Information Systems, or its Astra Schedule product

Appendices:

> A. Overview Flowchart
> B. Scheduling Timeline
> C. School ATA or Designee Responsibilities

Forms;

> Schedule Analysis Workbook
> Schedule Change Log
> Scheduling Requirements Workbook

Process:

Introduction:

Effective class and classroom scheduling is critical to the academic mission of the College. These protocols have been developed jointly with the Master Scheduling Process Team and schools to ensure that both classes and classrooms are scheduled efficiently to support the needs of students, faculty, and the institution as a whole.

The protocols in this document are designed to ensure that course offerings are scheduled in a manner that permits access to available offerings by the greatest number of students and allows the best match between specific instructional needs and courses being offered in the existing facilities. CNM has a first-day-of-class enrollment ratio target of 85% at the course level at each campus, and a facilities utilization target of 66%.

Starting Point

June (after summer change updates)

Enrollment Services rolls the academic schedule from the prior like production term into the Banner sandboxes for the next academic year to allow initial schedule input for each term. The full academic year is rolled at the same time. Example: In summer 2018, the academic schedule rolls for fall 2019, spring 2020, and summer 2020. Fall 2018 rolls to fall 2019, spring 2019 to spring 2020, and summer 2019 to summer 2020.

Before disseminating to the schools, MSO Coordinators perform the following tasks:

- Review the schedule for errors and correct for data entry mistakes (incorrect start and end times, incorrect contact hours, mismatched campus codes, and missing data fields).
- Reset class capacities to those listed for the course on the Scheduling Requirements sheet.
- Update planned offerings based on established rotation schedules as listed on the Scheduling Requirements sheet.
- Create a report flagging offerings in each school that might not be repeated: topics courses, off-campus sections of courses generally offered on campus,dual credit courses, and courses with unusual instructional methods (including Learning Communities, Computer Accelerated, Spanish instruction, and Fast Track).

Once these updates are complete, MSO announces to schools (ADs and school schedulers by email and on the school's scheduling SharePoint page) that the roll has been completed and corrected in the sandbox, and posts an excel copy of the schedule and report of flagged items on the school's scheduling Sharepoint page.

Timeline

MSO publishes a calendar showing the starting and ending dates for each part of the process for the upcoming academic year's schedule development no later than the initial roll of the schedule. This calendar is posted on MSO's SharePoint site.

Schedule Development

Academic schools communicate planned curriculum changes to the MSO, and keep the MSO informed of alterations in a timely fashion (within a week) as planned changes navigate the curriculum revision process. The Scheduling Manager meets with the Executive Director Physical Plant to confirm anticipated building and renovation activity during the planning year and to review college energy and space utilization directives. The Scheduling Manager communicates the findings of this meeting with the schools, and continues to convey updates received from the Executive Director Physical Plant in a timely fashion (within a week) as the schedule creation process progresses.

The MSO (Scheduling Manager, Scheduling Coordinator, and prior or upcoming Scheduling Coordinator) meets with the representative(s) from the school to review and discuss proposed changes to the initial schedule in a schedule revision meeting. At the completion of the roll into sandboxes, the MSO schedules the meeting, posts it on the MSO calendar, and sends a meeting invitation to the associate deans, academic affairs directors, and school scheduler. The school may invite additional representatives for all or a portion of the meeting, as is deemed appropriate. Personnel within the academic schools (Associate Deans, Program Directors, Academic Affairs Directors, Faculty Chairs, and others as determined by the school) and Master Scheduling Office Coordinators independently analyze the rolled schedule. Analysis is expected to occur in the summer and early fall for liberal arts schools (CHSS, MSE, and SAGE) and in late fall and early spring for CTE schools (AT, BIT, HWPS).

The MSO coordinators review, analyze, and create recommendations for changes based on information received in previous meetings with the schools, on established student centered scheduling protocols (sequencing and progression of classes, standardized time patterns, and distribution of classes), enrollment trends, and on cohorting (where applicable).   The workbook utilized by the MSO coordinator, including a list of prospective changes, will be made available to the school prior to the schedule revision meeting. The school will similarly provide the MSO with a list of prospective changes prior to the meeting, after analyzing the schedule and determining desired changes based on instructor feedback, enrollment trends, planned curricular changes and new scheduling strategies.

The schedule revision meeting is expected to occur around the second week of September for Liberal Arts schools and the first week of February for CTE schools. Discussion should include information provided by the school, including College Curriculum Committee (CCC) changes, current schedule suitability, industry changes,

resource limitations, pilot and special programs (such as Fast Track or CBE offerings), as well as enrollment trends (MSO will bring cancellation/addition report) and program specific details. Accepted changes are immediately entered into Banner. Changes not acceptable to both groups are either scheduled for further research or elevated to the Academic Affairs Executive Director for decision and Deans Council for appeal. An Argos report of the schedule as it exists at the conclusion of the meeting is locked and posted for informational purposes as the first draft schedule on the school's scheduling Sharepoint site; the prior schedule is locked and archived on the school's scheduling Sharepoint site. A schedule change log is also posted on the school's site at this time; the schedule change log remains active until the conclusion of the scheduled term (although the Enrollment Services form and associated process are still required to change sections once registration for the term has begun). Upon conclusion of these meetings, MSO does a preliminary rooming to ensure feasibility.

Schedule Review – Phase I (Pre-production)

The MSO and academic schools continue to review the draft schedule and assess its quality (in light of academic environment, enrollment trends, resource availability, cross-disciplinary interactions, and analytics data as this information becomes available). Refinements can be made as necessary to improve the quality of the draft. Until the schedule is rolled out of Banner sandboxes, changes are made as follows:

- The proposed change is entered onto the Schedule change log by the Associate Dean, Director, Chair or MSO Coordinator, documenting the change to be made and the reason for the change (using a drop down menu of reasons)
- The School Scheduler checks the Schedule Change log daily, ensures approval of all proposed changes by the Associate Dean, enters the changes into Banner, and indicates the processing of the change on the schedule change form.
- MSO Coordinators conduct a weekly change review to determine the impact of the change. If there are concerns, the MSO Coordinator works with the school to find a suitable alternative.
- When large-scale programmatic changes are being made, MSO and the school will determine appropriate processing.
- When school personnel and MSO staff are not in agreement, change requests will be referred to the Academic Affairs Executive Director for decision and Deans Council for Appeal.

In January, MSO provides fall and spring Registration Wrap Up reports to schools for action. In late May, MSO provides summer Registration Wrap Up reports to schools for action

The MSO also proposes changes in response to the Platinum Analytics analysis of planned courses. The MSO works with Ad Astra Information Systems to obtain this information each term. Analysis reports are shared with the schools and will generally be available within a month following the census date of the prior like term (for historical analyses) or of the immediately prior standard term (for full analyses).

Schedule Review – Phase II (Post-production, pre-publication)

At a date of their choosing, no later than one month prior to publication of the schedule, Enrollment Services rolls the schedule from sandboxes to the production terms. MSO verifies the quality of the roll, performs the standard error check (the same as the one conducted when the schedule is rolled into the sandboxes), makes necessary updates to section session dates (along with any other edits requiring the production environment), does another test rooming, and imports the terms into the Astra production environment. When this is complete, and at least two weeks prior to the publication of the schedule, MSO announces to the schools that the schedule is in production. The time from this announcement until the publication of the schedule is the final draft review period. The schools review and ensure the accuracy of their school schedule, and may begin adding faculty assignments, for all three terms. Changes during the final draft review period are made as follows:

- The proposed change is entered onto the Schedule change log by the Associate Dean, Director, Chair or Schedule Coordinator, documenting the change to be made and the reason for the change (using a drop down menu of reasons). Changes should be more conservative during this period, correcting identified problems, rather than instituting new ideas.
- MSO, ADs and the School Scheduler check the schedule change form daily.
- School scheduler ensures approval by the Associate Dean and MSO prior to making changes, enters the changes into Banner, and indicates the processing of the change on the schedule change form.
- If there are concerns from MSO or AD, they work together to find a suitable alternative. When school personnel and MSO staff are not in agreement, change requests will be referred to the Academic Affairs Executive Director for decision and Deans Council for Appeal.

Finally, MSO conducts an error check (as previously) right before publication.

Schedule Publication

The master schedule for the three academic terms moves to Enrollment Services who publishes a searchable full-year academic schedule. The dates for publication and registration are set by Enrollment Services; publication typically occurs around the first day of May.

Schedule Review – Phase III (Post-publication)
Following publication of the schedule, the MSO posts a locked reference copy of the published schedule on the school's scheduling SharePoint site. The prior draft schedule

is archived on the school's scheduling SharePoint site. Changes made after publication should only be done to correct critical issues. Changes will be made as follows:

- The proposed change is entered onto the Schedule change form by the Associate Dean, Director, Chair or Schedule Coordinator, documenting the change to be made and the reason for the change (using a drop down menu of reasons). Changes should be more conservative during this period, correcting identified problems, rather than instituting new ideas.
- The Associate Dean and MSO Coordinator must both approve the change before it is entered into Banner. The school should ensure available staffing and compatibility with program-specific needs; MSO should ensure available rooming and compatibility with college-wide initiatives.
- The School Scheduler ensures approval by the Associate Dean and MSO, enters the changes into Banner, and indicates the processing of the change on the schedule change form.

After census date of each term, the MSO shares a cancellation/addition report with the schools indicating how the final active schedule differs from the published schedule for the current term. The schools then follow the schedule change process above to make the appropriate adjustments to the subsequent schedule.

Four weeks prior to the start of registration the schedule is frozen (no changes) until the beginning of registration to allow section rooming.

Related Processes: Faculty Assignment and Textbook Selection

The timeline for faculty assignments depends on the school. The liberal arts schools make full-time faculty assignments three terms out (Fall 2019 classes are assigned to Liberal Arts FT faculty in Fall 2018, etc.), and make part-time faculty assignments the following term (Fall 2019 classes are assigned to Liberal Arts PT faculty in Spring 2019, etc.) The CTE schools make assignments one term later than the Liberal Arts schools. That is, CTE schools make full-time faculty assignments two terms out (Fall 2019 classes are assigned to CTE FT faculty in Spring 2019, etc.) and make part-time faculty assignments one term prior to the classes themselves (Fall 2019 classes are assigned to CTE PT faculty in Summer 2019, etc.). The faculty assignment process requires that the schedule is built before assignments are made, and that the schedule be available in production before assignments are finalized. It is also common for faculty to identify issues with the planned schedule, and so some schedule changes may be made during the assignment process.

The bookstore has set the following deadlines for book orders: Fall books must be identified in March, Spring books in October, and Summer books are due the following in

February. If a school allows instructors choice in their book adoption, then instructor assignments must be complete in time to comply with these book orders.

Supplemental Materials

Supplemental materials for a term are due from the schools to the MSO by close of business the Friday before rooming begins for that term. The supplemental materials include: Topics course description form, Offsite location form, Linked course form, and Special Section Attributes form. The templates for these documents are available on the MSO scheduling Sharepoint site, in the Supplemental Materials Templates folder. The forms are completed by the school scheduler and submitted to the MSO at scheduling@cnm.edu. The MSO provides the collected supplemental materials electronically to designated recipients in Enrollment Services and MCO on the first business day of the rooming freeze so that they may be processed prior to the opening of registration. The MSO reports all missing and late supplemental materials forms to the Academic Affairs Executive Director for follow-up.

Classroom Assignments

Six weeks before registration, MSO verifies with the schools that the Scheduling Requirements Workbook housed on the school's scheduling Sharepoint site is up to date. Five weeks before continuing student registration, the Scheduling Office updates optimization rules according to the information on the Scheduling Requirements Workbook and the approved accommodation list maintained by Human Resources (see ADA process). Four weeks before registration, schedule changes are frozen and the MSO assigns classrooms to classes at all campuses using the Astra Optimizer. Faculty assignments entered in Banner by the initiation of the optimization process will be considered in placing back to back classes or meeting approved ADA accommodation requirements, so schools are encouraged to ensure that faculty assignments in Banner are as complete as possible prior to this point. In order for an ADA accommodation to be considered in the room optimization process, HR must have formally approved the accommodation prior to the commencement of rooming for the term. Schools communicate that deadline to faculty each term. Class caps are set and maintained by the schools; the MSO will not place a class in a room that is smaller than required by the class cap.

Following room assignment, at least two weeks before continuing registration, the school room adjustment period opens to allow schools to refine room assignments on a space available basis; the schools are also responsible for room assignment changes thereafter (see Classroom Change Process for further details). During the room adjustment period, the school should ensure that all sections have an appropriate room assignment and should also reserve any additional instructional spaces that will be needed, such as classrooms for hosted classes, testing or lab rooms needed, or additional rooms for sections that will routinely occupy more than one instructional space during the same meeting.

The school administration and faculty are responsible to ensure that actual attendance does not exceed available seating and the limit specified by fire safety codes. Labs may not be overfilled. Lecture sections which are likely to be overfilled should be placed in rooms large enough to accommodate the additional students prior to the start of registration.

In the event of maintenance requirements, emergencies, or evacuation of a classroom or building, the Master Scheduling Office, in coordination with the school, temporarily relocates classes.

Final Schedule Update

Changes made after registration begins should only be done in response to enrollment trends or to correct critical issues. Changes are made following the process established by Enrollment Services using the Schedule Update Form and recorded in the Schedule Change log on the school's scheduling SharePoint site. Changes are tracked by Enrollment Services for reporting purposes and are submitted to the Master Scheduling Office (scheduling@cnm.edu) at the end of each term.

Form Distribution: All listed forms are shared on the school's scheduling SharePoint site.

Activity Tracked/Results: The type, timing, rates, registration impact, and rationale for section changes on the schedule are monitored.

Last Reviewed/Improvements Made: 8/3/2018 Process was revised substantially – in better alignment with actual work accomplished.