Memorandum

To: UW and AFIW deans, chairs/directors, instructors, scheduling Representatives

From: Beth Jewkes, associate provost, resources
           Ray Darling, registrar
           Ian Orchard, vice-president, academic & provost

Date: March 3, 2016

Re: Timetabling Changes Effective Fall 2016

This memo outlines two changes to the timetabling process that will take effect for the Fall 2016 scheduling cycle. The changes intend to improve scheduling outcomes for students, to reduce staff workload, to reduce the use of instructor block-offs, and improve schedule predictability for instructors. These changes have been informed by input and feedback from numerous chairs/directors, and support the UW Principles of Timetabling that have been endorsed by the Provost's Advisory Committee on Timetabling.

UW Principles of Timetabling

- Provide a positive academic experience for students by constructing timetables with conflict-free core courses and the widest possible selection of elective courses;
- Support the pedagogical needs of courses and programs;
- Endeavour to schedule courses so that faculty members can balance their teaching, research and service activities;
- Consider the work-life balance of all UW community members: faculty, staff and students;
- Foster transparency and collaboration between academic and academic-support units in their timetabling activities;
- Provide support to academic units in their implementation of timetabling;
- Promote fair and equitable distribution of instructional times and locations;
- Reduce the overall time and effort consumed to create a timetable;
- Promote the effective use of teaching space.

Last revised: October 23, 2015

These principles were endorsed by PACT October, 2015.

Two modifications are planned for Fall 2016. Both require chair/director engagement in the timetabling process that:

1. Alters the use of a daytime (core) meet time pattern system[1] to increase: conflict-free course selection for students, course offering predictability and room utilization. It will take several terms to evolve. ***The focus for Fall 2016 is to improve the balance between undergraduate courses offered 3x 1hr MWF and courses offered 2 x 1.5hrs TR or late day MW.***

2. Employs a new approach to define instructor teaching availability constraints. Instructors will be asked to select a teaching time window within which they are available to teach each day (one of: 8:30am – 3:30pm, 9:30am – 4:30pm, or 10:30am – 5:30pm or 8:30am – 5:30 pm) and to identify additional times they are not available to teach. An electronic form will facilitate collection of this information.

Background to both of these changes appears in the "Timetabling Challenges and Opportunities" document that was distributed to Deans and Chairs/Directors in 2015. If you would like a copy, please contact your faculty representative on PACT or your University Timetabling Committee (UTC) member:

Unit	PACT Representative	UTC Member:
AHS	Ron McCarville	Catherine Archibald
Arts	Katherine Acheson	Julie Mulvey
Engineering	Peter Douglas	Bill Owen
Environment	Jeff Casello	Carol Knipe
Math	Steve Furino	Katie Kent
Science	Marlee Spafford	Sue Whyte
AFIW	Judi Jewinski	Sue Brubacher (also Christina Mancini)

To help chairs/directors and instructors implement these changes, this document describes what activities need to be undertaken, and when.

This is part of a larger set of changes to take place over several terms. Incremental improvements are needed because course schedules are constantly being created. Upon completion of Fall 2016 scheduling, follow-up meetings with departments/schools will allow for questions/feedback and further defining goals for Winter 2017 and subsequent terms.

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[1] Meet time patterns are a standardized set of time slots into which course components are scheduled throughout an academic week. They promote maximum access for students to courses, course enrolments, and the number of courses that can be scheduled into a given set of classrooms.

Fall 2016 Timetabling Guidelines for Chairs/Directors, Instructors and Scheduling Representatives

1. Meet Time Patterns:

Meet time patterns should be designed to promote maximum access for students to courses, course enrolments, and the number of courses that can be scheduled into a given set of classrooms. Towards this end, the following guidelines will be followed:

Basic Daytime Guidelines:

- The core daytime teaching hours are 8:30am to 5:30pm M-F.
- Evening teaching hours are 5:30pm to 10:00pm M-R.
- Course components (e.g. lectures, labs, tutorials…) held in core hours will be scheduled within teaching blocks of 8:30am - 11:20am, 11:30am - 2:20pm, and 2:30pm - 5:20pm.
- Course components held in core hours must not overlap two teaching blocks.
- Departments/schools are expected to hold their administrative meetings *within* one of the teaching blocks.

Specific Meet Patterns:

A course component will be offered using one of the following patterns:

Core Patterns (8:30am – 5:30pm):

- 3 x 1 hr   MWF: 8:30am-9:20am, 9:30am-10:20am,…,4:30pm-5:20pm
- 2 x 1.5 hrs   TR: 8:30am – 9:50am, 10:00am-11:20am,…,4:00pm- 5:20pm
- 2 x 1.5 hrs   MW: 2:30pm-3:50pm or 4:00pm -5:20pm
- 1 x 1 hr   MWF: 8:30am-9:20am, 9:30am-10:20am,…, 4:30pm-5:20pm
- 1 x 1 hr   TR: 2:30pm – 3:20pm, 3:30pm -4:20pm, 4:30pm – 5:20pm
- 1 x 3 hrs   M-F: 8:30am, 11:30am or 2:30pm for courses with less than 80 students
- 1 x 3 hrs   M-F: 2:30pm for courses with 80 or more students[2]

For graduate courses, or undergraduate courses held with graduate courses only:

- 2 x 1.5 hrs   MW: 8:30am – 9:50am, 10:00am-11:20am,…,4:00pm- 5:20pm

Laboratory Teaching Patterns:
- The current patterns will be reviewed in a future term for potential revisions.
- To the extent it is possible, laboratories should follow the basic guidelines for timetabling.

Other Meet Time Patterns:
- Meet time patterns currently in use, but not listed above, will continue to be available Fall 2016. They will be reviewed in upcoming terms.

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[2] This requirement is in place to ensure that 1 x 3 hr courses do not render a room unusable for scheduling other courses. Use of this pattern will be reviewed going forward as it can have a negative impact on student course selection and does have a negative impact on room utilization.

Meet Time Patterns for the Fall 2016 Scheduling Cycle:

The focus for the Fall 2016 is to improve the balance between **undergraduate** courses offered 3 x 1 hr MWF and courses offered 2 x 1.5 hrs TR or late day MW. A number of faculties have come to rely heavily on 2 x 1.5 hrs patterns scheduled MW and TR. This has reduced the ability to schedule courses, conflict free, by as much as 20% (i.e. a loss of one day per week).

The following daytime patterns will be used for scheduling the primary course components of undergraduate courses (excluding labs and tutorials):
- 3 x 1 hr   MWF: 8:30am to 5:30pm
- 2 x 1.5 hrs   TR: 8:30am to 5:30pm
- 2 x 1.5 hrs   MW: 2:30pm to 5:30pm.

Note that the 2 x 1.5 hrs MW pattern from 8:30am to 5:30pm will still be available for graduate courses and undergraduate courses held with graduate courses.

Scheduling representatives will **not** be able to force times off pattern through the use of "notes" for Fall 2016.

When planning the primary meet patterns, course offerings taught during core teaching hours, chairs (or their delegates) should review the ratio of 3 x 1 hr components to 2 x 1.5 hr components. Ideally, the ratio should be 9:6, e.g. multiples of:
- 9 classes of 3 x 1 hr MWF (8:30am to 5:30pm)
- 6 classes of 2 x 1.5 hrs TR (8:30am to 5:30pm)

which permits 45 hours of classes to be scheduled conflict free into a classroom per week. This ratio is particularly important for courses with enrollments of 80 or more students, as we have a limited number of classrooms with this capacity. The ratio will allow the largest number of conflict-free courses to be scheduled.

The challenge of scheduling courses on Friday afternoons in some programs has been identified as a concern. To accommodate this notion, a more relaxed ratio of 6:8 can be used, e.g. multiples of:
- 6 classes of 3 x 1 hr MWF (8:30am to 2:30pm)
- 2 classes of 2 x 1.5 hrs MW (2:30pm to 5:30pm).
- 6 classes of 2 x 1.5 hrs TR (8:30am to 5:30pm)

To make this shift, some departments will need to reduce the number of 2 x 1.5 hr course offerings in favour of the 3 x 1hr MWF pattern. **This is the responsibility of the chair/director and instructors within the department/school.**

This memorandum will be followed up with department/school-specific information and recommendations based on the Fall 2015 schedule of classes.

Several early-March "Question and Answer" sessions have already been arranged with chairs/directors and their scheduling representatives to discuss how to set department/school goals. Those wishing to schedule such a session should contact their PACT representative by March 10, 2016 so that a session can be arranged prior to the end of the March planning period.

Note: Departments/units that do not regularly use 3 x 1 hr and 2 x 1.5 hrs patterns should review the patterns they do use for possible changes that will improve students' ability to enroll conflict-free into courses.

2. Instructor Teaching Availability Constraints:

Starting with the Fall 2016 scheduling cycle, instructors will be asked to select a teaching window within which they will be scheduled to teach. The windows are:
- 8:30am – 3:30pm,
- 9:30am – 4:30pm,
- 10:30am – 5:30pm,
- 8:30am – 5:30pm or,
- Not available to teach during the day (may only be selected if prior approval has been granted. This is intended for adjuncts.

It is the responsibility of the Chair/Director to ensure that instructors have spread their teaching window requests evenly over the three start times (8:30am, 9:30am and 10:30am) to maximize both course availability for students and room utilization.

Instructors may request additional block off times from their schedules, as categorized below. UW uses a three-level system to categorize instructor block-off requests. The first two levels act as *hard* constraints that automatically prevent teaching from being assigned at specified times, while the third level acts as a *preference* that the scheduling system will attempt to fulfill if possible.

- Level 1 constraints will be accommodated.
- Level 2 requests will be accommodated unless doing so causes a scheduling conflict. In such cases the Scheduling Office will contact the department/school scheduling representative, who will then contact the instructor to determine if any modifications can be made to remove or reduce the conflict. The chair/director may be engaged in the discussion if necessary.
- Level 3 requests will be accommodated, if possible.

When making a request for additional block-off times, instructors will be asked for the reason for their request.

Below are guidelines for chairs/directors to use when assigning levels to instructor requests:

- Level 1: Documented medical[3] or human rights [4] accommodation (e.g. Disability, Religious accommodation)
- Level 2: Regularly scheduled university meetings or Faculty meetings where the instructor is a member.
    – See https://uwaterloo.ca/secretariat-general-counsel/committees-and-councils
- Level 2: Child care, partner care and elder care where there are **logistical or medical issues**
    – denial of the request would result in considerable difficulties/hardship.
- Level 2 - Other significant commitments (e.g. teaching at the Fields Institute) such that denial of the request would result in considerable difficulties/hardship.
- Level 3: Preferential requests (e.g. commuting).

Scheduling representatives will be able to enter Level 3 requests into the Data Collection Utility (DCU). Level 1 and Level 2 requests will be coded by the Scheduling Office. Requests for Fall 2016 will be collated and become part of the post schedule review process.

The University Timetabling Committee,[5] working with the RO, has created an online form to collect this and other instructor information; the form can be implemented on a Faculty-by-Faculty basis and used to automatically generate a spreadsheet summary of requests. As a bridging tool, until a common form is implemented, the RO has created an equivalent spreadsheet.

3. Approach to the Scheduling Process

These modifications have been set up with the intent to improve scheduling outcomes for students, to reduce the amount of work staff need to do to produce a schedule, to reduce the need to use instructor blockoffs, and to improve predictability for instructors. Departments/schools are asked to review meet time patterns, course constraints and instructor availability requests in concert. In this way, chairs/directors and scheduling representatives will be able to remove redundant or contradictory information prior to coding the course information into the DCU.

A chart showing the revised scheduling activities and the associated timelines is attached. Questions should be directed to the Faculty UTC representative or to Charlene Schumm in the Scheduling Office (cschumm@uwaterloo.ca).

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[3] Note: Confidential requests for medical accommodation must be provided to the Occupational Health Nurse, Linda Brogden (lbrogden@uwaterloo.ca). Where possible, please arrange an appointment at least two months prior to the scheduling deadline. After meeting with an instructor, she will then verify with the Chair/Director that she has received documentation to support your request. As with any other request for medical accommodation at Waterloo, the Occupational Health Nurse will not share any medical details regarding the accommodation. Only limitations and restrictions will be provided to the Chair to ensure that the accommodation is met.

[4] Questions about requests for human rights accommodations can be addressed Mahjabeen Ebrahim (mahejabeen.ebrahim@uwaterloo.ca), Director of the Equity Office.

[5] The Faculty of Environment is acknowledged for taking the initiative to modify an existing form and share it with other Faculties.

Fall 2016 Scheduling Activities and Timelines

Role	Activity	Timeline (shaded span)
Department Chair	Identify courses taught	Mar 1 – Apr 4
	Assign instructors	Mar 1 – Apr 4
	Determine Teaching Patterns (in consultation with instructors)	Mar 1 – Apr 4
	Confirm allocation of MWF and TR	Mar 29 – Apr 4
	Confirm spread of Teaching Windows (in consultation with instructors)	Mar 29 – Apr 4
	Confirm/Adjust Course Constraints (in consultation with instructors)	Mar 15 – Apr 4
	Confirm/Adjust level 1 and 2 constraints submitted by instructors (in consultation with instructors)	Mar 15 – Apr 20
Instructor	Determine Teaching Patterns (in consultation with Dept. Chair)	Mar 1 – Mar 25
	Choose Selected Teaching Windows	Mar 1 – Mar 25
	Identify Teaching Time Constraints (optional within Teaching Windows)	Mar 1 – Mar 25
	Identify Course Constraints (optional)	Mar 1 – Mar 25
Scheduling Rep.	Undergrad Course build (in Quest and PCS)	Mar 14 – Apr 22
	Confirm/Adjust section changes (addition/deletion, topics reserve caps & limits) on Schedule of Classes	Mar 1 – Mar 16
	Confirm/Adjust Course Combinations (based on student cohort)	Mar 1 – Mar 31
	Input Pattern Requests, Instructor Teaching Windows, Room Constraints into DCU	Apr 3 – Apr 15
	Enter Level 3 Instructor Constraints (preferences)	Apr 3 – Apr 15
	Review DCU Report for accuracy (Notes, Constraints and DCU Review)	Apr 18 – Apr 20
	Submit level 1 and 2 constraints to Scheduling Office	Apr 20
	Set up PCS block enrollment	
	Confirm/Adjust Real Courses based on Selection Data	
	Confirm/Adjust Preliminary Schedule (Preliminary Schedule, Student Conflict Reports upon request)	

Date columns: FEB 29 | MAR 1, 2, 3, 4, 7, 8, 9, 10, 11, 14, 15, 16, 17, 18, 21, 22, 23, 24, 25, 28, 29, 30, 31 | APR 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22