



Timetabling Training

November 2006

Today's training



- Fall 2007 Timetabling
- Application Preview
- Lab Exercise

Change in the process



- New web-based data submission (worksheets provided for info only)
- Change in the order classes are timetabled
 1. Large Lecture Rooms
 2. Departmental Timetabling
 3. Computer Laboratories
 4. Continuing Education (X courses)

Timetabling process



- Data entry
 - Spring 2007: mandatory for LLR/LAB requests
 - Fall 2007 and forward: also mandatory for departmental timetabling
 - Departments will receive last-like semester data in the form of required times/rooms for each class offered
- Timetabling (solving)
 - Fall 2007 and forward: mandatory for all
 - Volunteering deputies will use the full functionality of the solver
 - Others may elect to use the solver in a mode that only checks the consistency of data (finds any problems)

Data entry – Rooms



- Each department has a list of rooms divided into categories:
 1. Classrooms
 2. Additional instructional rooms
 3. Special use rooms
 4. Non-university locations
- It is necessary that you check the list to see if
 - All rooms to be used are included
 - The capacities of your rooms are correct

Note: The classrooms you see in the application are those assigned to you for Fall 2007

Data entry – Rooms



- Room sharing
 - It is possible to share rooms between departments
 - It is necessary to share rooms if the classrooms are assigned by SMAS to two or more departments or a college – allocation of times in rooms is then up to assignees

UNIV 103

48



CDFS

CFS Ad

CSR

H&TMgt

F&N

Gen Ac

Soc&An

Data entry – Instructors



- Purpose of instructor list:
Allows departments to develop a non-conflicting schedule for instructor
- The list of instructors is yours to manage
 - You can add/remove any instructor
 - Your data about the instructor doesn't have to match the payroll (e.g., can have new instructors)
 - You should search for a person's PUID when you are adding him/her to the list (there is a tool for this in the application) as the instructor is matched with other Purdue systems based on his/her Purdue ID.

Data entry – Instructional offerings



A brief review of terminology

Instructional Offering

- In most cases an equivalent of a course (e.g., MA 162)

Configuration

- Organization of instruction
(e.g., Lec only, Lec-Rec-Lab, ...)

Scheduling Subpart

- A part of the course consisting of one or more classes of the same instructional type
(e.g., MA 162 Lecture consists of Lec 1, Lec 2, ...)

Class

- A group of students meeting together for instruction
- A class is the object that is timetabled
(e.g., MA 162 Lec 1)

Data entry – Instructional offerings



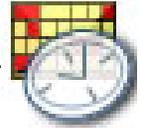
Terminology – Example

| | | | | | | | |
|----------|--------------------------|-----|-----|-----|----------|-----------------------|---------|
| 1 | PHIL 110 | 344 | 344 | 325 | 2 | Configuration Big lec | 150 |
| 2 | Configuration small sec. | | | 175 | 3 | Lecture | 100 150 |
| 3 | Lecture | | 150 | 175 | 3 | Recitation | 50 150 |
| 4 | Lec 1 | | 150 | 35 | 4 | Lec 6 | 100 150 |
| 4 | Lec 2 | | 150 | 35 | 4 | Rec 1 | 50 25 |
| 4 | Lec 3 | | 150 | 35 | 4 | Rec 2 | 50 25 |
| 4 | Lec 4 | | 150 | 35 | 4 | Rec 3 | 50 25 |
| 4 | Lec 5 | | 150 | 35 | 4 | Rec 4 | 50 25 |
| | | | | | 4 | Rec 5 | 50 25 |
| | | | | | 4 | Rec 6 | 50 25 |

Legend

1. Instructional Offering
2. Configuration (named by user)
3. Scheduling Subpart
4. Class

Data entry – Instructional offerings



- You can have any courses in your list of instructional offerings – the application does not perform checks against the course catalog
- However, there is a link to the course catalog website (www.courses.purdue.edu) for each course, so you can check the configuration of the course
- If the course configuration does not agree with the course catalog, you will learn about that shortly after submission of your data (Big Brother is watching)

Data entry – Instructional offerings



- **Grouping**
 - A tool to set up attendance relationships between classes

Ungrouped:

| STAT 114 |
|------------|
| Lecture |
| Recitation |
| Lec 1 |
| Lec 2 |
| Rec 1 |
| Rec 2 |
| Rec 3 |
| Rec 4 |

Grouped:

| STAT 114 |
|------------|
| Lecture |
| Recitation |
| Lec 1 |
| Rec 1 |
| Rec 2 |
| Lec 2 |
| Rec 3 |
| Rec 4 |

Data entry – Cross-listed courses



- Both “meets with” and “conjoined” courses are handled as **cross-listed** in the timetabling application

“Conjoined” courses are truly one offering under two (or more) names

MA 416
STAT 416
Lecture

Lec 1

Lec 2

Data entry – Cross-listed courses



“Meets with” may have only part of the course in common – e.g., lecture is taught together, but recitations and labs are separate – this is still set up as one instructional offering (as cross-listed courses) and the recitations and labs are split by the means of a new class level reservation

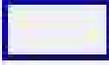
C S 180
C S 180H
Lecture
Recitation
Laboratory
Lec 1
Rec 1
Lab 1
Rec 2
Lab 2
Rec 3
Lab 3

Data entry – Preferences



- Color-coding for preferences – consistent throughout the application

Range for your
departmental timetable

| | |
|---|----------------------|
|  | Required |
|  | Strongly Preferred |
|  | Preferred |
|  | Neutral |
|  | Discouraged |
|  | Strongly Discouraged |
|  | Prohibited |

Range for the classes
you do not timetable

| | |
|---|----------------------|
|  | Strongly Preferred |
|  | Preferred |
|  | Neutral |
|  | Discouraged |
|  | Strongly Discouraged |

Data entry – Distribution preferences



- The distribution preferences set relationships between classes
- Examples
 - Back-to-Back
 - Same days
 - Same start time

Data entry – Reservations



- Academic Area (curriculum) reservations
 - Same as on the worksheets
- Course reservations (for cross-listed courses)
 - The course reservations provide a means to set the course limits for each of the cross-listed courses (necessary for the systems to which data is exported from the timetabling application)
 - Can be put on the class level to distinguish which classes are associated with which course e.g., special honors recitation class with honors course

Solver



- Expected usage
 - Check the consistency of input data
 - Do we have all the necessary information?
 - Is it possible to create a timetable? Or do two classes require the same room at the same time?
 - Create a timetable
 - Timetable generated based on input data
 - Users can make incremental changes to this timetable at any time
 - Commit the timetable (= submit to SMAS)

Solver



- Advantages
 - The timetable you submit does not have any inconsistent input data
 - You can see if there are any student conflicts with other committed classes as soon as you have the timetable (before you commit) – you don't have to wait for the test schedule runs to discover these problems
 - For example, your class might overlap with a LLR class that the students need to take too – you will see this information in the application when you create a timetable (even if the LLR class is from another department)

Preview & Lab exercise



- Goals for the remaining two parts of today's training
 - Refresh your knowledge of data entry
 - Focus on how to create your departmental timetable (this part was not introduced during the LLR/LAB trainings in August)

Contact information



- SMAS office phone: 43900
- E-mail: smasops@purdue.edu
 - Please, start the subject with the word “Timetabling”