



# eStaffing

## eStaffing was built to accomplish the following goals:

- Enforce administrative rules and structure to a subjective process.
- Provide randomized assignment handling according to faculty rank.
- Provide an online application to allow Internet based access.
- Transfer/synchronization of information with Datatel.
- Centralized management of faculty eligibility and preferences.
- Consider eligibility and faculty preferences to help make staffing decisions.
- Report/Track key information to improve the process.

## eStaffing Highlights

- Manages appointments and eligibility for faculty
- Manages faculty preferences about teaching times and locations
- Provides mechanism for faculty to pick exact sections in which they are interested
- Provides random draw assignment phase that is seniority based
- View assignments and availability instructors to facilitate staffing
- Controls access to features by role in organization
- Accept/Refuse capability for faculty
- Customizable to fit administrative rules.
- Enforce dates for certain activities such as faculty preferences, performing assignments, accept/refuse assignments and overload assignments.
- Informative reports to track progress and see how staffing was performed

## Definition of Terms

Department – A broad grouping of related subject matter (i.e.: Sciences)

Discipline – A specific grouping of related courses (i.e.: Biology)

Appointment – The faculty seniority level (MSTA – multiple semester term appointment, IA – Instructional Associate or Adjunct) specific to a discipline.

Eligibility – Those courses that a faculty member is eligible to teach.

Hire Priority – the demand for a faculty to teach a course (Highest priority to Hire (HPH), Eligible or new).

Senior Faculty – this status is given to faculty based upon number of terms taught.

Faculty Rank - A combination of the faculty appointment, hire priority and senior faculty status codes. This is used to group faculty into blocks that can be fairly randomized.

Section – A course definition that occurs at specific times/locations.

Instructional methods – Lecture, Lab, etc.

LEH – Lecture Equivalent Hours. An amount of hours determined for staffing limits and compensation.

*"We found that eStaffing reduced our fall 2001 term eligibility and staffing process from 160 man hours to less than 40 hours." - Dean*

*"The time invested in the system will streamline our efforts in subsequent terms. We found it very helpful." – Task Force Chair*

## Background

Every term there are courses that must be staffed. Full Time Faculty will fill many of the courses; the remaining courses are frequently filled with Adjunct Faculty. If you need to staff your remaining sections with only a small number of adjuncts, your task is reasonably straightforward. On the other hand with hundreds (or perhaps thousands) of adjuncts, managing their information is crucial.

The eStaffing application was built to facilitate these issues. By managing information within a decision support system that enforces control, the process is conducted in a fair and organized manner. Read further to see how the robust features improve a manually intensive and flawed process.

## Appointment and Eligibility Management

By standardizing the information maintained for faculty appointments and eligibility, eStaffing simplifies and centralizes the processing required. Not only does this improve the information from the sake of consistency, it also makes it easier to manage. By using the information from multiple sources, the work required is minimized and the processes are improved.

*Each appointment level can be assigned a maximum number of hours (LEH) per term. Faculty can have a different appointment level within each discipline they teach.*

Task Force Chairs (TFC) and Program Coordinators (PC) set up appointment and course eligibility for their disciplines. Each member of the organization can review the information. Dean of the departments approves appointments and eligibility for their discipline areas. The dean approval process can occur at a detail level or they can rely on the judgment of their TFC/PC for each discipline in their department. Administrative rules are enforced for appointments. Each appointment level is allotted a number of maximum assignable hours (LEH) per term before overloads are incurred.

## Faculty enter their Preferences

Faculty can manage their teaching preferences. They have a time grid that they can use to specify when they are available to teach (see figure 1).

Please indicate times you are **NOT** available to teach by placing a check below:

Time	Monday +-	Tuesday +-	Wednesday +-	Thursday +-	Friday +-	Saturday +-	Sunday +-
7AM - 8AM +-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
8AM - 9AM +-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
9AM - 10AM +-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
10AM - 11AM +-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11AM - 12PM +-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
12PM - 1PM +-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
1PM - 2PM +-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2PM - 3PM +-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3PM - 4PM +-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4PM - 5PM +-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
5PM - 6PM +-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
6PM - 7PM +-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
7PM - 8PM +-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
8PM - 9PM +-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
9PM - 10PM +-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
10PM - 11PM +-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
11PM - 12AM +-	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Select All/None ↑↑  
Shortcuts

Save and Proceed to Next Step

*Figure 1*

Faculty may set their preferences as strict or as open as they want. They control the number of courses they can be considered for assignments

Campus locations can be ranked in preference order. Each campus selection can be a single campus or a group of campuses (see figure 2). If faculty members want to only teach at the locations listed in their preferences, they have the option to limit the campuses strictly. This will prevent any other campuses from appearing during the assignment and section preference processing.

Definition of campus groups can fall within geographic lines such as North, South and Suburban. If other needs arise, administrators can generate additional types of campus groups.

Save and Proceed to Next Step

**In priority order, please specify the campuses where you prefer to teach**

Limit my courses to these campuses only

**First Campus Choice:** (ACC Campuses)

**Second Campus Choice:** ROR - Round Rock High School

**Third Campus Choice:** AKN - Akins High School

**Fourth Campus Choice:** Choose

**Fifth Campus Choice:** Choose

Additional Information	
<b>ACC Campuses</b>	CYP, EVC, HBC, NRG, PIN, RGC, RVS
<b>North Austin</b>	AKN, AML, BOW, CASA, CIC, CMC, CMK, DLP, DSG, FOL, HBC, LHS, MPL, NPY, NRG, PSB, SPL, SPT, TCJ,

Figure 2

Given times/campus preferences and eligibility (see figure 3) faculty can pick specific sections they are interested in teaching.

Eligible to Teach Courses in Digital Publishing						
Course	Hire Priority	Start Date	End Date	Appointment	Telecom Methods	Status
GRPH 1296	Eligible	8/25/01	12/17/01	Adjunct		Approved
GRPH 1307	Eligible	8/25/01	12/17/01	Adjunct		Approved
GRPH 1367	Eligible	8/25/01	12/17/01	Adjunct		Approved
GRPH 1396	Eligible	8/25/01	12/17/01	Adjunct		Approved
GRPH 1409	Eligible	8/25/01	12/17/01	Adjunct		Approved
GRPH 1422	Eligible	8/25/01	12/17/01	Adjunct		Approved
GRPH 1425	Eligible	8/25/01	12/17/01	Adjunct		Approved
GRPH 1432	Eligible	8/25/01	12/17/01	Adjunct		Approved

Figure 3

Faculty can manage sections that they prefer to teach (see figure 4). They can view a list of sections matching their eligibility regardless of whether they match their preferences. To add sections to their preferred list, the sections must meet their campus and time preferences.

Show Sections Matching Preferences
Show Sections Matching Eligibility

Delete Selected
Select All
Select None
Renumber Sections As Shown

*NOTE: To renumber sections, change numbers in the boxes to the desired ordering, then click "Renumber Sections As Shown".*

Preferred Sections during Fall 2001											
Preference Del / Order	Synonym	Course	Section #	Start End	Campus	Method	Bldg	Room	Days	Meeting Time	
<input type="checkbox"/> <span style="border: 1px solid black; padding: 2px;">1</span> 1	26770	GRPH 1457 <a href="#">{3109}</a>	001	8/27/01 12/16/01	NRG	Lecture	NRG3	3133	MW	12:00PM	02:40PM
<input type="checkbox"/> <span style="border: 1px solid black; padding: 2px;">2</span> 2	26757	GRPH 1494	001	8/27/01 12/16/01	NRG	Lecture	NRG3	3133	MW	05:50PM	09:45PM
<input type="checkbox"/> <span style="border: 1px solid black; padding: 2px;">3</span> 3	26756	GRPH 1367	001	8/27/01 12/16/01	NRG	Lecture	NRG3	3133	TH	06:00PM	09:35PM

*Figure 4*

### Random Draw Assignment Processing promotes fairness

The specification of faculty seniority status, appointment level and eligibility hire priority determine the rank of each faculty member per discipline. The random draw process is faculty focused. The goal is to assign courses based upon faculty eligibility and preferences. The following groups are used to determine the random draw order selection process.

- MSTA Senior
- MSTA Non Senior
- IA Senior
- IA Non Senior
- Adjunct HPH Senior
- Adjunct HPH
- Adjunct

*During the first random draw assignment loop and the remaining/re-assign phase only faculty groups designated as first phase can be considered.*

*During the second phase, all faculty members can be considered.*

The groups are processed in order starting at the top and finishing each group completely before each subsequent group. Randomization of faculty is performed within each group for fairness. It is possible to divide the 7 groups into two phases. Currently we recommend that all MSTA, IA and Adjunct HPH be processed in the first phase. The remaining Adjuncts without HPH or Senior statuses would be handled in the second phase.

Information is depicted according to a faculty member's preferences. Sections are organized into three categories:

- Sections selected as preferred by the faculty
- Sections that match faculty preferences
- Sections that do not match faculty preferences

Consequently the sections that appear near the top of the list are what the faculty wants to receive most. Subsequent sections are less desirable but still meet eligibility for the faculty.

### **Remaining / Re-Assign Processing open up flexibility**

Upon processing the last faculty from each phase, the assignment loop phase will end and the date range to perform the random draw is closed. Staffing can then continue in a less structured Course focused manner. Courses can be staffed by considering those with remaining LEH or by performing re-assignment of currently allocated courses.

Information presented in each of these steps will display faculty grouped into three categories:

- Faculty who selected the section as preferred
- Faculty with preferences matching this section meeting locations and times
- Faculty who are eligible but have preferences that do not match this section meeting locations and times

With each of these categories, the faculty are ordered by hire priority then sorted by seniority level. The available LEH, preferences and current assignments are easy to browse for each faculty.

### **Informative Reports and Selection Lists**

Reports are provided to handle a variety of issues such as communicating progress or providing detailed information for staffing decisions. Here are some examples:

- Which Sections need to be staffed?
- Which Instructors are eligible and available?
- Have Assignments been accepted or refused?
- What are the faculty preferences?
- Is work completed for Appointments and Eligibility?
- Which faculty has provided complete preference information?
- How well did the participants staff during the random draw?

*You can see exactly what was done, when it was done and who did it.*

*You can use the reports to enforce policy and understand who is attempting to comply or circumvent the system.*

### **Structure and Control**

Operations performed by users are controlled in two ways:

Date ranges are provided for windows of opportunity to perform functions. These functions are supposed to be completed in a published timeframe. The dates are used to control access and communicate expectations.

Access Matrix restricts certain features to certain user types. The following are the user classifications we have defined for the system

Faculty Member (Faculty)  
TFC/PC Assistant (Executive)  
TFC/PC (Executive)  
Dean Assistant (Executive)  
Dean (Executive)  
AVP (Executive)  
EVP (Executive)  
Administrator (System Admin)

It is possible for a user to be both a faculty member and one or more executive levels. If this is the case, the user is provided a menu to control what user level in which they enter the system. Figure 5 shows sample settings

Security Matrix								
	PC Staff	Program Coordinator	TFC Staff	Task Force Chair	Dean Staff	Dean	AVP	EVP
Edit Faculty Info/Prefs	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Approve Appointments	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Approve Eligibility	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Assign Courses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Reserve Courses	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Unassign Courses	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Approve Overloads	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Accept Assignments for Faculty	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Modify Calendar	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Figure 5

#### Synchronization between eStaffing and Datatel

Nightly downloads are extracted from Datatel to supply eStaffing with information needed for general processing as follows:

- Course Inventory – This defines which discipline and department owns courses and over what timeframe
- Sections – Defines for each active term the occurrence of courses with meeting times, locations and instructional methods
- Faculty – Defines known faculty members contained within Datatel and their pertinent attributes necessary for contact.
- Faculty Section Assignments – Defines the section instructional methods currently assigned during active terms for faculty within Datatel.

When assignments are made and accepted within eStaffing, the information related to the assignment (Faculty, Section, Instructional Method and LEH) can be transferred into Datatel. This is known as the upload procedure.

The download and upload procedure can be run on virtually any frequency. We recommend that downloads run nightly and uploads run several times a week. Disciplines have control over whether their assignments are automatically sent to Datatel during the upload process.

### **Handling Exceptions Related to Synchronization**

If there are discrepancies between information during the download/upload processing, exceptions are generated. The following issues generate exceptions which can be investigated and resolved within eStaffing:

(A)-Courses previously in Datatel have been removed. Confirm removal of course and assignments from eSS.

(B)-Course status, start date or end date has changed. Review the change for impact to assignments.

(C)-Course meeting time has been changed or removed. Review the change for impact to assignments.

(D)-Course Instructional Method has been changed or removed. Review the impact to assignments already made.

(E)-An assignment within Datatel has been altered. Review the change and accept it.

(F)-An assignment within Datatel previously has been dropped. Retain the assignment or Accept the removal of the assignment from eSS.

(G)-Assignments made within eSS have not yet been transferred into Datatel. You may want to review this list for possible problems during data upload.

Depending upon the circumstances, many of the issues listed above can be dismissed in bulk. If however, the issues involve assignments pending or existing, then more scrutiny is required. Background information for any of the situations is clearly available to allow quick resolution of the issues.