

Faculty Assignment System boosts process efficiency and raises teacher satisfaction



Our client operates test centers across the country with staff to manage class schedules and allocate teachers to each class.

Assigning faculty to teach courses was done manually, resulting in significant variances from center to center. Furthermore, faculty managers could end up spending as much as 10 to 20 hours per week merely to assigning teachers. Also center staff did not always assign teachers in the most efficient manner especially when it came to multi-center availability.

Further, scheduling of online courses was a challenge as it required close coordination with every center. Moreover inefficient faculty assignments hampered recruiting. As long as most centers were unable to predict their staffing needs into the future, skill-based recruiting on a national basis was not possible.

Marlabs Solution

Solution input comes from multiple data feeds: teachers, classes, teacher scores, amongst others.

The teacher feed specifies all class types the teacher is qualified to teach, including online classes. A feed of testing centers includes locations, capacity and other relevant factors. Attributes about classes such as time, testing center and skills required are part of the class feeds. Additionally teachers specify geographic areas they are willing to work in, hours per week they are willing to work, and days they are available.

Given the universe of available classes and teachers, the solution uses a linear programming model to determine the optimal distribution of teachers to classes. Class assignments are forwarded to teachers for their acceptance.

Faculty managers responsible for testing centers confirm teacher-accepted assignments. Any teacher/class assignments that have not been confirmed by a faculty manager are reassigned based on the latest best-fit. With the added option of bypassing the recommendation system, faculty managers can also force a teacher/class assignment. Closing the loop are summary reports that roll up testing centers by region and display nationwide assignment status with detailed drill down. Various process effectiveness metrics help set benchmarks and provide detailed insight into improvement opportunities.

Client:

Educational provider

Technology Platform:

- Java/JEE
- JBoss 5.1
- Spring Framework 3.0
- Flex 3.0
- FICO Xpress - Mosel

Benefits

- Delivers cost savings by helping manage more testing centers with fewer people
- Increases visibility through tracking of assignments across centers nationally
- Improves planning through tools that allow assignments farther into the future
- Reduces scheduling errors through centralized monitoring of teacher/class assignment
- Enhances coordination of assignments by boosting teacher availability across centers