ENHANCED APC FACULTY LOADING SYSTEM USE CASES

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| **Use Case Number** | **FL-01** | |
| **Use Case Name** | User Authentication | |
| **Actor(s)** | Program Head, Faculty | |
| **Basic Flow** | Actor Action | System Response |
|  |  | Step 1: System displays log in page |
|  | Step 2: User enters their username and password |  |
|  | Step 3: User click's the log-in button |  |
|  |  | Step 4: System displays the control center of APCIS |
| **Alternative Flow** | 1. At Step 3: If the username and password did not match | System's display's an error message |
|  | At Step 3: If mismatch occurs 3 times | System will display a timeout of 30 seconds before enable logging in |
| **Precondition** | User must be registered on APC Information System | |
| **Post condition** | User was able to login to the system | |

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| **Use Case Number** | **FL-02** | |
| **Use Case Name** | Program Head views control center | |
| **Actor(s)** | Program Head | |
| **Basic Flow** | Actor Action | System Response |
|  | Step 1: Admin clicks "Faculty Loading System" link |  |
|  |  | Step 2: System displays control center for Faculty Loading System |
| **Alternative Flow** |  | At Step 2: System may display navigation errors |
| **Precondition** | Program Head must logged on to APCIS. | |
| **Post condition** | Program Head was able to view control center of Faculty Loading System. | |

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| **Use Case Number** | **FL-03** | |
| **Use Case Name** | Program Head views subject offerings page | |
| **Actor(s)** | Program Head | |
| **Basic Flow** | Actor Action | System Response |
|  | Step 1: Program Head clicks "Subject Table" link |  |
|  |  | Step 2: System displays list of subject offerings |
| **Alternative Flow** |  | At Step 2: System may not display subject offerings |
|  | Program Head searches a specific subject | System displays subjects matched |
|  | Program Head sorts subjects | System sorts subject |
|  | Program Head searches invalid subject | System displays error message |
| **Precondition** | Retrieved subject offerings from Registrar. | |
| **Post condition** | Program Head was able to view subject offerings. | |

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| **Use Case Number** | **FL-04** | |
| **Use Case Name** | Program Head tags the faculty | |
| **Actor(s)** | Program Head | |
| **Basic Flow** | Actor Action | System Response |
|  | Step 1: Program Head clicks "Faculty Loading Module" link |  |
|  |  | Step 2: System displays control center of Faculty Loading Module |
|  | Step 3: Program Head clicks the Tag Faculty Module |  |
|  |  | Step 4: System displays the list of faculty members with checkboxes |
|  | Step 5: Program Head checks the faculty members who will be teaching next term |  |
|  |  | Step 6: System saves the tagged faculty members in the database. |
| **Alternative Flow** | 1. At Step 5: The Program Head may not check the faculty members that will not teach next term. |  |
| **Precondition** | Program Head must have logged on to APCIS. | |
| **Post condition** | Program Head was able to tag faculty members who will teach next term. | |

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| **Use Case Number** | **FL-05** | |
| **Use Case Name** | Program Head tags Availability of Faculty | |
| **Actor(s)** | Program Head | |
| **Basic Flow** | Actor Action | System Response |
|  | Step 1: Program Head clicks "Faculty Availability" link |  |
|  |  | Step 2: System displays availability table |
|  | Step 3: Program Head tags necessary schedule for faculty members |  |
|  | Step 4: Program Head clicks "Save" button |  |
|  |  | Step 5: System saves data in database |
| **Alternative Flow** |  | At step 4: System may display database error messages. |
| **Precondition** | Program Head must tag at least one faculty member for loading. | |
| **Post condition** | Program Head was able to tag availability of faculty for loading. | |

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| **Use Case Number** | **FL-06** | |
| **Use Case Name** | Program Head encodes Faculty Specialization | |
| **Actor(s)** | Program Head | |
| **Basic Flow** | Actor Action | System Response |
|  | Step 1: Program Head clicks "Encode Specialization" link |  |
|  |  | Step 2: System displays 2 tables |
|  | Step 3: Program Head matches employee specialization with specialization flag for loading. |  |
|  | Step 4: Program Head clicks "Save" button |  |
|  |  | Step 5: System saves data in database. |
| **Alternative Flow** |  | In Step 2: System may empty variables. |
|  | Program Head mismatches specific specialization from database | System displays mismatch |
| **Precondition** | Program Head must tag at least one faculty. | |
| **Post condition** | Program Head was able to encode specialization. | |

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| **Use Case Number** | **FL-07** | |
| **Use Case Name** | Program Head generates the tentative faculty schedule | |
| **Actor(s)** | Program Head | |
| **Basic Flow** | Actor Action | System Response |
|  | Step 1: Program Head clicks "Generate Tentative Load" link |  |
|  |  | Step 2: System displays database |
|  | Step 3: Program Head clicks the "Match" button |  |
|  |  | Step 4: System generates the load schedule of the faculty members |
|  | Step 5: Program Head checks if the generated schedules are appropriate |  |
|  | Step 6: Program Head clicks the "Save" button |  |
|  |  | Step 7: System saves the generated faculty schedule to the system's database. |
| **Alternative Flow** |  | 1. At Step 6: System may display empty variables. |
| **Precondition** | At least one faculty member was tagged. | |
| **Post condition** | Program Head was able to create tentative load for all tagged faculty members. | |

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| **Use Case Number** | **FL-08** | |
| **Use Case Name** | Program Head views individual loads | |
| **Actor(s)** | Program Head | |
| **Basic Flow** | Actor Action | System Response |
|  | Step 1: Program Head clicks "View Faculty Loads" button |  |
|  |  | Step 2: System displays form for searching faculty's name, year, and term of load |
|  | Step 3: Program Head chooses a faculty, year, and term. |  |
|  | Step 4: Program Head clicks "Submit" button |  |
|  |  | Step 5: System displays load assigned to that faculty. |
| **Alternative Flow** |  | At Step 5: System may not display any loads. |
| **Precondition** | Program Head must tag at least 1 faculty and at least 1 subject loaded for that faculty. | |
| **Post condition** | Program Head was able to view load of faculty | |

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| **Use Case Number** | **FL-09** | |
| **Use Case Name** | Faculty views control center | |
| **Actor(s)** | Faculty | |
| **Basic Flow** | Actor Action | System Response |
|  | Step 1: Faculty clicks "Faculty Loading System" link |  |
|  |  | Step 2: System displays control center for Faculty Loading System |
| **Alternative Flow** |  | At Step 2: System may display navigation errors |
| **Precondition** | Faculty must logged on to APCIS. | |
| **Post condition** | Faculty was able to view control center of Faculty Loading System. | |

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| **Use Case Number** | **FL-10** | |
| **Use Case Name** | Faculty views load | |
| **Actor(s)** | Faculty | |
| **Basic Flow** | Actor Action | System Response |
|  | Step 1: Faculty clicks "View Tentative Load" button |  |
|  |  | Step 2: System displays load table |
| **Alternative Flow** |  | Step 2: System may display  an empty table |
| **Precondition** | Faculty must be registered on APC Information System and has at least 1 subject loaded | |
| **Post condition** | Faculty was able to view his/her faculty load | |

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| **Use Case Number** | **FL-11** | |
| **Use Case Name** | Program Head edits load of faculty | |
| **Actor(s)** | Program Head | |
| **Basic Flow** | Actor Action | System Response |
|  | Step 1: Program Head clicks "Edit Tentative Load" button |  |
|  |  | Step 2: System displays form for searching faculty's name, year, and term of load |
|  | Step 3: Program Head chooses a faculty, year, and term. |  |
|  | Step 4: Program Head clicks "Submit" button |  |
|  |  | Step 5: System displays editable load table |
|  | Step 6: Program Head edits necessary cells |  |
|  | Step 7: Program Head clicks "Submit" button |  |
|  |  | Step 8: System displays "Success" message |
| **Alternative Flow** |  | At Step 8: System may display errors |
| **Precondition** | Program Head must be registered on APC Information System and the faculty must be loaded with at least 1 subject | |
| **Post condition** | Program Head was able to edit faculty load | |

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| **Use Case Number** | **FL-12** | |
| **Use Case Name** | User changes system skin | |
| **Actor(s)** | Program Head, Faculty | |
| **Basic Flow** | Actor Action | System Response |
|  | Step 1: User clicks “Change Skin” button |  |
|  |  | Step 2: System displays skin menu |
|  | Step 3: User chooses skin. |  |
|  | Step 4: User clicks “Submit” button |  |
|  |  | Step 5: System changes skin |
| **Alternative Flow** |  |  |
| **Precondition** | User must be registered on APC Information System | |
| **Post condition** | User was able to login to the system | |

MATCHING ALGORITHM USE CASES

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| **Use Case Number** | **MA01** | |
| **Use Case Name** | Matching algorithm (Connect to database) | |
| **Actor(s)** |  | |
| **Basic Flow** | System Response |  |
|  | Step 1: Connect to database |  |
|  | Step 2: Retrieve data from faculty and subject’s database |  |
| **Alternative Flow** | 1. At Step 3: If the username and password did not match |  |
|  | At Step 3: If mismatch occurs 3 times |  |
| **Precondition** | A faculty member was tagged. | |
| **Post condition** | It was connected to the faculty and subject database. | |

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| **Use Case Number** | **MA02** | |
| **Use Case Name** | Matching algorithm (Display retrieved data) | |
| **Actor(s)** | Admin | |
| **Basic Flow** | Actor Action | System Response |
|  |  | Step 1: Display data from the retrieved database |
|  | Step 2: Checks necessary data needed on the matching algorithm |  |
| **Alternative Flow** | Admin searches a specific subject | System displays subjects matched |
|  | Admin sorts subjects | System sorts subject |
|  | Admin searches invalid subject | System displays error message |
| **Precondition** | It was connected to the faculty and subject database. | |
| **Post condition** | Retrieved data was displayed. | |

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| **Use Case Number** | **MA03** | |
| **Use Case Name** | Matching Algorithm (Get tagged faculty and subjects) | |
| **Actor(s)** | Admin | |
| **Basic Flow** | Actor Action | System Response |
|  | Step 1: Tag faculty and subject for the next term |  |
|  |  | Step 2: Get tagged faculty and subjects |
| **Alternative Flow** |  |  |
| **Precondition** | Retrieved data was displayed. | |
| **Post condition** | Get the tagged faculty and subjects. | |

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| **Use Case Number** | **MA04** | |
| **Use Case Name** | Matching Algorithm using foreach loop (Assigning faculty as a member variable) | |
| **Actor(s)** |  | |
| **Basic Flow** |  | System Response |
|  |  | Step 1: Each faculty will be assigned to member variable |
| **Alternative Flow** |  |  |
| **Precondition** |  | |
| **Post condition** |  | |

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| **Use Case Number** | **MA05** | |
| **Use Case Name** | Matching Algorithm using foreach loop (Assigning Subjects to Subject variable) | |
| **Actor(s)** |  | |
| **Basic Flow** |  | System Response |
|  |  | Step 1: Each Subject will be assigned to subjects variable |
| **Alternative Flow** |  | At Step 1: System may empty variables. |
|  | Admin mismatches specific specialization from database | System displays mismatch |
| **Precondition** |  | |
| **Post condition** |  | |

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| **Use Case Number** | **MA06** | |
| **Use Case Name** | Matching Algorithm (Checks faculty specialization) | |
| **Actor(s)** |  | |
| **Basic Flow** |  | System Response |
|  |  | Step 1 : Checks the faculty’s specialization if it matches to the subject table. |
| **Alternative Flow** |  |  |
| **Precondition** |  | |
| **Post condition** |  | |