MIT Subject Management API

MIT Subject Management API - System Rules

Please note that this page and related pages are being developed as part of the CIM Courses Project and are subject to change.

This page is intended to specify the needs and validations of the mit-subjects API. This API is the single gateway to create and edit MIT subjects and was developed as part of the CIM Courses Project.

#	Data Element	Grouping	Required	Validation	Notes
	Subject Code	Subject	Yes	Must be a valid value in STVSUBJ	-
	Subject Number	Subject	Yes	Must be in regular expression format: [A-Z0-9][A-Z0-9][A-Z0-9][A-Z0-9] [A-Z0-9][A-Z0-9][A-Z0-9][A-Z0-9] Must be alphanumeric, 1 to 3 or 4 characters. 3 if subj_code is 3 characters otherwise 4. if subject_code = 'SP': - if dept = FAS, subject number must start with 8 - if dept = ISP, subject number must start with 3 - if dept = PXL, subject number must start with 1	-Expects uppe numbers -Currently onl number not e characters lon
	Subject Key (Subject Code + Number)	Subject	N/A	-Checks if identical Subject Key exists in table SUBJECT_TMPL_REG_INSTANCE - if identical subject key exists in SUBJECT_TMPL_REG_INSTANCE, API will return an error if SUBJECT_CONTAINER is different and SUBJECT_CONTAINER.last_active_term of the retrieved subject is null or later than the template effective from term	Listed as sepa for validation #work - impac (de/re)activati
	(Subject Type + Code)	Subject	Yes	If subject type is cross reg, STVDEPT.STVDEPT_COLL_CODE of the dept associated with the subject code must equal to Z	
	Subject Type	Subject	Yes	Must be in approved list of values	List of values Rules KB artic
	Effective Terms	Subject	Yes	-Must be a valid term in SGBGP_TERM -Comprised of Effective From term and Effective Through terms -Effective From term must be less than or equal to the Effective Through Term -Effective From term must not equal to Effective From term of any SUBJECT_TEMPLATE record that belongs to same container id -Effective Through term must be greater than or equal to Effective From Term -Effective Through term must not equal to Effective Through term of any SUBJECT_TEMPLATE record that belongs to same container id -Effective Terms of a template must not overlapped with effective terms of another SUBJECT_TEMPLATE record that belongs to same container e.g. Adding template effective from 2017FA through 2018SP to Container A will result in error if Container A has a template effective 2018FA-999999	
	Subject Title	Subject	Yes	Cannot be longer than 255 characters	#work - specia handling?
	Transcript Title	Subject	Yes	-Cannot be longer than 30 characters -Must be equal or shorter than Subject Title	-
	Alternate Title	Subject	No	Cannot be longer than 255 characters	#work - specia handling?
	Department Code	Subject	Yes*	-Must be a valid value in STVDEPT -Must match mapping in STVSUBJ *If Subject Type is "Cross Registration", Department must be empty *if Subject Code is 'SP', the department must of one of the following: FAS,PXL,ISP	-Valid values for SP subject element: sp.subjects.va properties file

	Status	Subject		-Must be equal to one of the following: Active, Inactive	Hardcoded va
	Variable Unit	Units	Yes	Database field is variable_units - must be "Y" or "N"	-
	Fixed Units - Lecture	Units	Yes*	-Must be not be greater than zero if variable_units = "Y" -Must be in range of [0-99] if variable_units = "N" *Required if variable_units = "N"	-
	Fixed Units - Laboratory	Units	Yes*	-Must be not be greater than zero if variable_units = "Y" -Must be in range of [0-99] if variable_units = "N" *Required if variable_units = "N"	-
	Fixed Units - Preparation	Units	Yes*	-Must be not be greater than zero if variable_units = "Y" -Must be in range of [0-99] if variable_units = "N" *Required if variable_units = "N"	-
	Credit Limit	Units	Yes*	-Must be not be greater than zero if variable_units = "Y" -Must be in range of [0-99] if variable_units = "N" *Required if variable_units = "N"	-
	Total Units	Units	Yes*	Auto-calculated to be the sum of Lecture, Laboratory, and Preparation units if subject is a fixed-units subject -Must be not be greater than zero if variable_units = "Y" -Must be in range of [0-99] if variable_units = "N" *Required if variable_units = "N"	
	Subject Level	Level	Yes	-validating against table SATURN.STVLEVL	
	Attribute Code	Attributes	No	-Attribute Code must match a value in STVATTR -Need to have at least 1 cross-listed subject if SWE attribute is entered -Attribute SUPR must be included if attribute THES or attribute UROP is present -URN Attribute must be entered if subject number = URN	Old attributes STVATTR has field as old or
	UG Degree Audit Lab Units	Attribute	No	-if entered, the value must be between 1 and 12.	
	Grading Scheme	Grading	Yes	-Must have at least one entry -Must contain at least one entry for each of the required grading type(s). The required grading type(s) are determined by retrieving all entries from STVGM_TYP with STVGM_TYP.GMOD_TYPE_REQUIRED equals to 'Y'	-
	Grading Mode	Grading	Yes	Must match a valid value in STVGMOD	-
	Grading Type	Grading	Yes	-Must match a valid value in STVGM_TYP -Must be a valid type allowed for the Grading Mode entered -If FSEM attribute is present, must be a valid type for the Grading Mode - GMOD_TYPE_FRESHMAN_IND -Certain Grading Types can only appear once in the Grading Scheme. The grading type(s) that can only appear once are determined by retrieving all entries from STVGM_TYP with STVGM_TYP.GMOD_TYPE_REPEAT_IND equals to 'N'	-
	Cross-listed Collaborative Indicator	Cross-listed	No	-Currently will default to false if cross-listed subject key is present and the corresponding collaborative indicator is null or empty space -Currently will be set as false if the input value is not 'Y' or 'N' or true or false	
	Cross-listed Subject Code	Cross-listed	No	Must be a valid value in STVSUBJ	-
	Cross-listed Subject Number	Cross-listed	No	-Must be in regular expression format [A-Z0-9][A-Z0-9][A-Z0-9][A-Z0-9] -Must prefixed with 8, 3, or 1 respectively for FAS, ISP and PXL departments' special (SP) subjects	-SP dept prefi configured in sp.subjects.FA sp.subjects.IS sp.subjects.P properties file
	Cross-listed Subject Key	Cross-listed	No	-Subject Key must not already exist in SUBJECT_TMPL_REG_INSTANCE for a different container -Subject key must not equal to the main subject key	
	Equivalent Subject Key	Equivalent	No	-Subject Key(container id) must exist in SUBJECT_CONTAINER -Must not equal to the edited subject	

	Equivalent Effective From Term	Equivalent	No	-Must be earlier than the equivalent effective thru term -Must not be earlier than the effective from term of the earliest template of the edited subject -Must not be earlier than the effective from term of the earliest template of the equivalent subject	
	Equivalent Effective Thru Term	Equivalent	No	-Must be later than the equivalent effective from term	
	Equivalent Effective Terms	Equivalent	No	-If a equivalent subject has more than one set of equivalent effective terms, they must not overlap with each other	
	Subject Relationship Subject Container	Scheduling Relation	No	-Container id must exists in SUBJECT_CONTAINER -Must not equal to the edited subject	
	Subject Relationship Type	Scheduling Relation	No	-Must be equal to one of the following types: SR	-valid values f relationship ty element: subject.relatio properties file
	Subject Relationship Effective From Term	Scheduling Relation	No	-Must be earlier than or equal to the scheduling relationship effective thru term -Must not be earlier than the effective from term of the earliest template of the edited subject -Must not be earlier than the effective from term of the earliest template of the scheduling relationship(SR) subject -If the edited subject is inactive, must not be later than the last active term of the edited subject -If the scheduling relationship(SR) subject is inactive, must not be later than the last active term of the SR subject	
	Subject Relationship Effective Thru Term	Scheduling Relation	No	-Must be later than or equal to the scheduling relationship effective from term -Must not be later than the effective thru term of the last template of the edited subject -Must not be later than the effective thru term of the last template of the scheduling relationship(SR) subject -If the edited subject is inactive, must not be later than the last active term of the edited subject -If the scheduling relationship(SR) subject is inactive, must not be later than the last active term of the SR subject	
	Subject Relationship Effective Terms	Scheduling Relation	No	-If a Scheduling Relation subject has more than one set of scheduling relation effective terms, they must not overlap with each other	
	Term Plan Offered Terms	Term Plan	Yes*	-One of the followings must have the value set as Y: isOfferedFall, isOfferedIAP, isOfferedSpring, isOfferedSpring for regular subjects	
	Term Plan Frequency	Term Plan	Yes*	-Required for Standard Subjects - Valid values for frequency are: EVERY,IRREG,ODD,EVEN,RESUME_ANNUAL_ODD,RESUME_ANNUAL_EVEN	-Valid values f frequency are term.plan.valid properties file
	Term Plan Duration	Term Plan	Yes*	-Required for Standard Subjects - Valid values for duration are: H1,P,F,H2	
	Term Plan Duration First Week	Term Plan	No	-Required only if duration equals to P(artial) - Must be greater than 0 and less than the value of Term Plan Duration Last Week	
	Term Plan Duration Last Week	Term Plan	No	-Required only if duration equals to P(artial) - Must be greater than 0 and greater than the value of Term Plan Duration Last First	
	Display Control	Display Control	Yes*	-At least one entry is required for Standard Subject	

	Display Control Term Type	Display Control	Yes*	-At least one entry is required for Standard Subject -Must be equal to one of the following: FA, JA, SP, or SU -Must match with the terms specified for Term Plan Offered Term -Cannot enter more than 1 entry for the same term type	-Valid values f display contro element: display.contro properties file
	Display Control Online Subject Listing Faculty Source	Display Control	Yes*	-At least one entry is required for Standard Subject -Must be equal to one of the following: CF, IA, OT	-Valid values f listing faculty s control are de display.contro in properties f
	Display Control Online Subject Listing Faculty Display Value	Display Control	No	-Required when Online Subject Listing Faculty Source equals to OT -Values entered will be ignored if Online Subject Listing Faculty Source is CF or IA	
	Catalog Faculty	Display Control	No	-Currently will throw an error when it is null or empty and the catalog faculty preface is not null and empty	
	Catalog Faculty Preface	Subject	No	-valid values are "I" or 'C'	
	Roll Faculty Indicator	Subject	No	-valid values are 'P' or 'L'	
	Gradable Schedule Type	Grading	No	-must exist in saturn.STVSCHD_TYPE	
	Subject Description	Description	Yes*	-required for standard subject	
	Enrollment Limitation - limit	Enrollment Limitations	No	-must be numeric	-Currently use Seminar Max
	Enrollment Limitation - lottery	Enrollment Limitations	No	-if entered, must be equal to true, false, Y, N, null or empty space	-Currently not or CIM Feed, field has not b
	No Listener	Enrollment Limitations	No	-if entered, must be equal to true, false, Y, N, null or empty space	-Currently not or CIM Feed, field has not b
	Preferences - Custom Preference	Enrollment Limitations	No	-Currently used for the enrollment limitations in free-text format for non freshman seminar subjects	
	Restrictions	Enrollment Limitations	No	-Currently used for enrollment limitations in text format for freshman seminar	
	Freshman Seminar	Freshman Seminar	No	-Required if a subject has FSEM attribute -At least one seminar detail record with Type=Leader must be entered for subject with FSEM attribute -API will return an error when seminar details data is included for a subject that does not have a FSEM attribute	
	Seminar Details - Name	Freshman Seminar	No	-Required for each seminar detail entry	
	Seminar Details - Department	Freshman Seminar	No	-must be entered if type is Leader	

	Seminar Details - Type	Freshman Seminar	No	-Valid values are: Leader or Co-leader	-Valid values f for SP subject element: fsem properties file
	Seminar Details - Bio Sketch	Freshman Seminar	No	-must be entered if type is Leader	
	Seminar Details - Kerberos Id	Freshman Seminar	No	-Must be in regular expression format: [0-9a-zA-Z_] -must not exceed 8 characters	
	Home Institution Code	Cross Registration	No	-required if subject type is Cross Registration -must exist in sfpmgr.XREG_VV_HOME_INSTITUTION	
	Home Organization Unit	Cross Registration	No	-required if subject type is Cross Registration and Home Institution Code is 'H' (Harvard) -must exist in sfpmgr.XREG_MIT_SUBJECT_CODE_LKP	
	Home Subject Id	Cross Registration	No	-required if subject type is Cross Registration -cannot have duplicate entry in sfpmgr.XREG_SUBJECT for same subject id and home institution code	

Other API Error Handling

-If the API gets a THES attribute without a SUPR attribute, the API will throw an error
-If the API gets a UROP attribute without a SUPR attribute, the API will throw an error
-If the API gets an SWE attribute on a subject that has no child cross-listed subject numbers, the API will throw an error
-If the API gets a subject with a "URN" subject number and a UROP attribute but no "URN" attribute, the API will throw an error

Subject Management Documentation Index

The Subject Management Documentation Index is the central listing for documentation pertaining to Subject Management.