MN Ed-Fi Suite v3.6.2, Data Standard v4.0: Grades

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Summary

This educational entity represents an overall score or assessment tied to a course over a period of time (i.e., the grading period). Student grades are usually a compilation of marks and other scores.

Required Resources (Upstream)

The following resources must be sent prior to this resource:

- Grading Periods
- Student Section Associations

Dependent Resources (Downstream)

The following resources are dependent on this resource (must be sent after this resource):

- N/A

Error Log

The following are potential Tier 1 (Ed-Fi API generated) or custom (Campus generated) errors you may receive when posting, updating, or deleting this resource. Please keep in mind that the "Error Message" below may not match your exact error message.

Error Message	Possible Causes / How to Fix
400: Validation of '**RESOURCE**' failed. **FIELD** is required.	An element of the JSON that is required is missing and needs to be added. • Double check that all bolded data elements below are reporting a valid value and no data elements below are reporting an invalid value.
400: '**RESOURCE**' failed. **RESOURCE** reference could not be resolved.	A resource that was referenced from a difference resource does not yet exist. • Resync the resource being mentioned in the error, then resync the errored resource. Alternatively, the resource being referenced may be incorrect. This can happen with Schools and the Ed-Fi School ID being used as an example. Double check the referenced values being sent are valid.
403: Authorization denied. The claim does not have any established relationships with the requested resource.	The key/secret being used does not have permission to send a record for the resource / referenced resource. • Double check your API credentials (key/secret). Sometimes specific keys/secrets cannot report specific resources. • The referenced person (student, staff, parent, contact, etc.) has not yet been associated to the key/secret. Resync their "linking" resource (Students → Student School Associations, Staffs → Staff Education Organization Assignment Associations, etc.) then resync the errored resource. • The referenced person (student, staff, parent, contact, etc.) may not exist in the ODS yet. Resync the "person" resource and the "linking" resource (Students → Student School Associations, Staffs → Staff Education Organization Assignment Associations, etc.) then resync the errored resource.
404: Failed to delete '**RESOURCE**'. Record does not exist.	The attempt to delete a specific Ed-Fi record ID in the ODS failed because it did not exist. • This error can be ignored. The ID was cleared from the Ed-Fi Identity Mapping Report and will not attempt to delete again.
409: A natural key conflict occurred when attempting to create a new resource '**RESOURCE**' with a duplicate key.	The Ed-Fi API has a natural key system alongside a standard REST ID system. This error is often protecting against the erroneous creation of a duplicate record in the API. However, it may also indicate that the natural key requirements of the Ed-Fi API have not been satisfied, and the key needs to be modified. • Check for duplicate data in your Campus site. If no duplicate data can be found, report the issue to Campus Support. ◦ This can be caused by numerous issues. Our code may be attempting to send duplicate records when it should not. The natural key (bolded fields below) may not be unique enough to satisfy Ed-Fi requirements in all cases. Most times this error will require a code change to fix.
409: The resource (or a subordinate entity of the resource) cannot be deleted because it is a dependency of the '**RESOURCE**' entity.	The resource that the application is attempting to delete is referenced from another entity. • Use the Delete Tool to delete the referenced resource in the error message. Then retry the delete on the original resource that errored.

500: Internal Server Error.	Something unexpected happened and no specific error message could be returned.
	- This issue usually occurs when the ODS is having issues. Confirm that there are no issues with the ODS the data is being sent to and then attempt to retry the errored record. - Contact Campus Support if 500 errors continue to occur, can be replicated consistently, and the ODS the data is being sent to has no ongoing issues. - There is a chance that Campus Ed-Fi code is sending an invalid JSON request resulting in the 500 error. - There is a chance that an Ed-Fi Data Standard / API bug is causing the issue. - Investigation is needed in these cases as there are many different potential causes.

High School Grades

Object Triggering Logic

Action	Business Rule(s)

Post	Report a record when a Transcript is posted to a Grading Task that is mapped to an Ed-Fi Grade Type Descriptor **AND** marked as Final **AND** marked as State Reported.
	
	• The Grading Task must be mapped to a Grading Period in Resource Preferences on the Grading Periods resource to report a record for Grades.
	• A Student Section Association record must exist in the Ed-Fi Identity Mapping table for the student/section combination prior to sending a Grades record.
	• The Grading Period must overlap the Term the Grade is posted to for a Grades record to report.
	   ○ The End Date of the Grading Period must be on or after the Term Start Date the Grade is posted to.
	   ○ The End Date of the Grading Period must be on or before the Term End Date the Grade is posted to.
	• If the Grade is aligned to more than one Grading Period that overlaps the Term, a Grades record will be reported for all eligible Grading Periods
	• A record is only reported for Grades in the same School Year as the Ed-Fi Connection sending the record.
	   ○ School Year dates are defined in School Year Setup.
	      ▪ If Start Date is NULL, 07/01/StartYear will be used.
	      ▪ If End Date is NULL, 06/30/EndYear will be used.
	• Do not report a record if the any of the following exclusions are present:
	   ○ Score is NULL
	   ○ Grading Task **NOT** Final
	   ○ Grading Task **NOT** State Reported
	   ○ Section Cross Site
	   ○ Course Inactive
	   ○ Course State Exclude
	   ○ Enrollment No Show
	   ○ Enrollment State Exclude
	   ○ Enrollment Grade Level Exclude
	   ○ Calendar Exclude
	   ○ School Exclude

Delete/Post
 	
Put
	A DELETE / POST will be performed if the data element being altered is part of the resource's natural key. A PUT will be performed otherwise.
	
	• When any of the following information is changed on Grades:
	  ○ Score ID (New Score)
	  ○ Score
	• When any of the following information is changed on Enrollments:
	  ○ Enrollment ID (New Enrollment)
	  ○ State Exclude
	• When any of the following information is changed on Transcripts:
	  ○ Transcript ID (New Transcript)
	  ○ Score
	  ○ SCED Subject Area
	  ○ Credits Earned
	• When any of the following information is changed on Courses:
	  ○ Active
	  ○ State Exclude
	  ○ Section Enrollment Type
	• When any of the following information is changed on Grading Tasks:
	  ○ Final
	  ○ State Reported
	• Changes to Resource Preferences mappings **do NOT trigger**. A manual resync must be performed on the resource if mappings are changed.

Delete	• When the Score is deleted. • When the Score is no longer associated with a mapped Grading Task. • When the Student Section Association or Grading Periods record references no longer exist. • When a record is in the Ed-Fi Identity Mapping Report but cannot be found on the Campus site.

Object Data Elements Logic

Data element labels below in **BOLD** are part of the natural key of this resource and are required data elements for the record to send through Ed-Fi.

• The Mandatory / Conditional / Optional column indicates what the state requires for each data element. For Core Ed-Fi connections, it indicates what the data standard requires for each data element.

	Data Element Label	Business Rule(s)	Mandatory (M) Conditional (C) Optional (O)	Data Source GUI Path	Database Field	Uses Template Logic (✅ / ❌ / EXT)
1	**gradeTypeDescriptor** (*string*)	*The type of grade reported (e.g., exam, final, grading period).* Reports the Ed-Fi Code mapped to the Grading Task or Rubric the Grade was associated with. • This mapping can be found in the Resource Preferences of the Ed-Fi Connection under the Grades resource. • Do not report if the Grading Task or Rubric is not mapped.	M	Score Group & Rubric Setup	GradingScore .taskID	✅
2	**gradingPeriodReference** (*reference*)	*A reference to the Grading Periods resource associated with the Grade being reported.* Reports the fields that are part of the Natural Key for the Grading Periods resource. • This will only report to Grading Periods that are aligned to the Term Schedule the Grade was posted in.	M	N/A	N/A	✅
3	**studentSectionAssociationReference** (*reference*)	*A reference to the Student Section Associations resource associated with the Grade being reported.* Reports the fields that are part of the Natural Key for the Student Section Associations resource.	M	N/A	N/A	✅
4	letterGradeEarned (*string*)	*A final or interim (grading period) indicator of student performance in a class as submitted by the instructor.* Reports the **State Score** (or **Score** if State Score is NULL) from the Posted Grade assigned in the Section (**NOT** the Score on the Transcript). • Only reports Scores associated with Grading Tasks (**NOT** Learning Standards). • Only reports from a numerical Score when the Score is equal to 0, 1, 2, 3, or 4.	C	Transcripts Course Information	GradingScore .score	❌
5	academicSubjectDescriptor (*string*)	*This descriptor holds the description of the content or subject area (e.g., arts, mathematics, reading, stenography, or a foreign language).* Reports the Ed-Fi Code mapped to the value selected for **SCED Subject Area** on the associated Transcript record. • This mapping can be found in the Resource Preferences of the Ed-Fi Connection under the Grades resource. • Do not report when the SCED Subject Area in campus is a non-number code. • Do not report if SCED Subject Area is NULL or not mapped to an Ed-Fi Code.	C	Transcripts	TranscriptCourse .scedSubjectArea	EXT
6	localCreditEarned (*number*)	*Local credit earned.* Reports the **Credits Earned**. • Only reports when the associated Course does **NOT** have a Section Enrollment Type of *DP: PSEO Direct Pay*.	O	Transcripts	TranscriptCredit .creditsEarned	EXT
7	currentGradeAsOfDate	This data element is optional and does not report.	O	N/A	N/A	N/A
8	currentGradeIndicator	This data element is optional and does not report.	O	N/A	N/A	N/A
9	diagnosticStatement	This data element is optional and does not report.	O	N/A	N/A	N/A
10	learningStandardGrades	This data element is optional and does not report.	O	N/A	N/A	❌
11	numericGradeEarned	This data element is optional and does not report.	O	N/A	N/A	❌
12	performanceBaseConversionDescriptor	This data element is optional and does not report.	O	N/A	N/A	N/A
13	collegeCreditEarned	This data element is optional and does not report.	O	N/A	N/A	N/A - EXT
14	collegeGradeEarned	This data element is optional and does not report.	O	N/A	N/A	N/A - EXT

College Grades

Object Triggering Logic

Action	Business Rule(s)

Post	Report a record when a Transcript is posted to a Grading Task that is mapped to an Ed-Fi Grade Type Descriptor **AND** marked as Final **AND** marked as State Reported **AND** has a Code of *COLLEGECREDIT* **AND** the associated Course has College Place Holder checked.
	
	 • If the additional requirements (Grading Task Code of *COLLEGECREDIT* and associated Course having College Place Holder checked) are not met, the transcript will be considered a High School Grade.
	 • The Grading Task must be mapped to a Grading Period in Resource Preferences on the Grading Periods resource to report a record for Grades.
	 • A Student Section Association record must exist in the Ed-Fi Identity Mapping table for the student/section combination prior to sending a Grades record.
	 • The Grading Period must overlap the Term the Grade is posted to for a Grades record to report.
	    ◦ The End Date of the Grading Period must be on or after the Term Start Date the Grade is posted to.
	    ◦ The End Date of the Grading Period must be on or before the Term End Date the Grade is posted to.
	 • If the Grade is aligned to more than one Grading Period that overlaps the Term, a Grades record will be reported for all eligible Grading Periods
	 • A record is only reported for Grades in the same School Year as the Ed-Fi Connection sending the record.
	    ◦ School Year dates are defined in School Year Setup.
	      ▪ If Start Date is NULL, 07/01/StartYear will be used.
	      ▪ If End Date is NULL, 06/30/EndYear will be used.
	 • Do not report a record if the any of the following exclusions are present:
	    ◦ Score is NULL
	    ◦ Grading Task **NOT** Final
	    ◦ Grading Task **NOT** State Reported
	    ◦ Section Cross Site
	    ◦ Course Inactive
	    ◦ Course State Exclude
	    ◦ Enrollment No Show
	    ◦ Enrollment State Exclude
	    ◦ Enrollment Grade Level Exclude
	    ◦ Calendar Exclude
	    ◦ School Exclude

Delete/Post Put	A DELETE / POST will be performed if the data element being altered is part of the resource's natural key. A PUT will be performed otherwise.
	- When any of the following information is changed on Grades: - Score ID (New Score) - Score - When any of the following information is changed on Enrollments: - Enrollment ID (New Enrollment) - State Exclude - When any of the following information is changed on Transcripts: - Transcript ID (New Transcript) - Score - SCED Subject Area - Credits Earned - When any of the following information is changed on Courses: - Active - State Exclude - College Place Holder - When any of the following information is changed on Grading Tasks: - Final - State Reported - Changes to Resource Preferences mappings **do NOT trigger**. A manual resync must be performed on the resource if mappings are changed.
Delete	- When the Score is deleted. - When the Score is no longer associated with a mapped Grading Task. - When the Student Section Association or Grading Periods record references no longer exist. - When a record is in the Ed-Fi Identity Mapping Report but cannot be found on the Campus site.

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	Data Element Label	Business Rule(s)	Mandatory (M) Conditional (C) Optional (O)	Data Source GUI Path	Database Field	Uses Template Logic (✅ / ❌ / EXT)
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2	**gradingPeriodReference** (*reference*)	*A reference to the Grading Periods resource associated with the Grade being reported.* Reports the fields that are part of the Natural Key for the Grading Periods resource. • This will only report to Grading Periods that are aligned to the Term Schedule the Grade was posted in.	M	N/A	N/A	✅
3	**studentSectionAssociationReference** (*reference*)	*A reference to the Student Section Associations resource associated with the Grade being reported.* Reports the fields that are part of the Natural Key for the Student Section Associations resource.	M	N/A	N/A	✅
4	letterGradeEarned (*string*)	*A final or interim (grading period) indicator of student performance in a class as submitted by the instructor.* Reports the **State Score** (or **Score** if State Score is NULL) from the Posted Grade assigned in the Section (**NOT** the Score on the Transcript). • Only reports Scores associated with Grading Tasks (**NOT** Learning Standards). • Only reports from a numerical Score when the Score is equal to 0, 1, 2, 3, or 4.	C	Grades	GradingScore .score	❌
5	academicSubjectDescriptor (*string*)	*This descriptor holds the description of the content or subject area (e.g., arts, mathematics, reading, stenography, or a foreign language).* Reports the Ed-Fi Code mapped to the value selected for **SCED Subject Area** on the associated Transcript record. • This mapping can be found in the Resource Preferences of the Ed-Fi Connection under the Grades resource. • Do not report when the SCED Subject Area in campus is a non-number code. • Do not report if SCED Subject Area is NULL or not mapped to an Ed-Fi Code.	C	Transcripts	TranscriptCourse .scedSubjectArea	EXT
6	collegeCreditEarned (*number*)	*College credit earned.* Reports the **Credits Earned**.	C	Transcripts	TranscriptCredit .creditsEarned	EXT
7	collegeGradeEarned (*string*)	*College grade earned.* Reports the **Score** from the Transcript (**NOT** the Posted Grade assigned in the Section).	C	Transcripts	TranscriptCredit .creditsEarned	EXT
8	localCreditEarned (*number*)	*Local credit earned.* Reports the **Credits Earned**. • Only reports when the associated Course does **NOT** have a Section Enrollment Type of *DP: PSEO Direct Pay*.	C	Transcripts	TranscriptCredit .creditsEarned	EXT
9	currentGradeAsOfDate	This data element is optional and does not report.	O	N/A	N/A	N/A
10	currentGradeIndicator	This data element is optional and does not report.	O	N/A	N/A	N/A
11	diagnosticStatement	This data element is optional and does not report.	O	N/A	N/A	N/A
12	learningStandardGrades	This data element is optional and does not report.	O	N/A	N/A	❌

| 13 | numericGradeEarned | This data element is optional and does not report. | O | N/A | N/A | ❌ |
| 14 | performanceBaseConversionDescriptor | This data element is optional and does not report. | O | N/A | N/A | N/A |