



MN Ed-Fi Suite v3.5.2, Data Standard v3.3.0-a: Sections

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Summary

This entity represents a setting in which organized instruction of course content is provided, in-person or otherwise, to one or more students for a given period of time. A course offering may be offered to more than one section.

Object Triggering Logic

Action	Business Rule(s)
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Post	Report a record when a Section is created and saved. • The Section must be scheduled into a term/period (Section Placement) to report. • The Section must have an associated Staff Section Association record to report. ◦ See the Staff Section Associations resource for POST logic of this resource. • One record will report for each Section and Term Type combination. • A record is only reported for Period Schedules 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: ◦ Course Inactive ◦ Course State Exclude ◦ Calendar Exclude ◦ Calendar MCCC Exclude ◦ School Exclude
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Delete /Post	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.
Put	• When any of the following information is changed on Section Information: ◦ Section ID (New Section) ◦ Section Placement ◦ Online Learning Override ◦ Period Minutes Override • When any of the following information is changed on Course Information: ◦ Course ID (New Course) ◦ SCED Sequence "part n" ◦ SCED Course Level ◦ Section Enrollment Type ◦ Online Learning ◦ Instruction Language ◦ Instruction Method / EE Location ◦ Period Minutes • When any of the following information is changed on Course Grading Tasks: ◦ Grading Task ID (New Course Grading Task) • When any of the following information is changed on Section Staff History: ◦ Section Staff History ID (New Section Staff History) ◦ Start Date ◦ End Date ◦ Role ◦ Staff Type • When any of the following information is changed on Periods: ◦ Period ID (New Period) ◦ Start Time ◦ End Time • Changes to Resource Preferences mappings do NOT trigger. A manual resync must be performed on the resource if mappings are changed.
Delete	• When a Section is deleted. • When the Section Placement is removed or changed. • When a record is in the Ed-Fi Identity Mapping Report but cannot be found on the Campus site.

Required Resources (Upstream)

The following resources must be sent prior to this resource:

- Schools
- Course Offerings
- Class Periods

Dependent Resources (Downstream)

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

- Student Section Associations
- Staff Section Associations

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.
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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	sectionIdentifier (string)	<i>The local identifier assigned to a section.</i> Reports the Section ID.	M	Section Information	Section .sectionID	✓
2	courseOfferingReference (reference)	<i>A reference to the Course Offerings resource associated with the Section being reported.</i> Reports the fields that are part of the Natural Key for the Course Offerings resource.	M	N/A	N/A	✓
3	characteristics (array)	<i>An unordered collection of sectionCharacteristics. Reflects important characteristics of the Section, such as whether or not attendance is taken and the Section is graded.</i> Reports the following data elements in an array:	C	Course Information Course Grading Task Setup	Course .scedCourseLevel Course .distanceCode Course .program	✗

- sectionCharacteristicDescriptor
 - Reports based on the below table:

Section Characteristic Descriptor	Logic
MA (Marking Indicator)	Reports when a Grading Task that is mapped to an Ed-Fi Code of <i>FG: Final Grade</i> exists on the Course Grading Tasks. ▪ This mapping can be found in the Resource Preferences of the Ed-Fi Connection under the Grades resource. ▪ Does not report if the SCED Course Level has a value of <i>P: Preschool / Early Education</i> or <i>N: No Credit</i>.

Section
InformationSection .
distanceCode

FP (Fixed Period Indicator)	Reports when a Section is scheduled into a Period (has a Section Schedule Placement). Does not report if Section Enrollment Type is something other than SC: Scheduled or NULL.
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		VI (Virtual Indicator) Reports when the Course Online Learning is something other than <i>GD: Delivery & learning occur with the instructor and students in the same place and time</i> OR Reports when the Section Online Learning Override is something other than <i>GD: Delivery & learning occur with the instructor and students in the same place and time</i> AND is NOT NULL. Does not report if Section Enrollment Type is something other than SC: Scheduled.				
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4	classPeriods (array)	<i>A reference to the Class Periods resource associated with the Section being reported.</i> Reports the following data elements in an array: - classPeriodReference - Reports the fields that are part of the Natural Key for the Class Periods resource for all class periods the section is offered in. - Only reports if Section Enrollment Type is SC: <i>Scheduled</i> OR is NULL.	O	N/A	N/A	
5	instructionLanguageDescriptor (string)	<i>The media through which teachers provide instruction to students and students and teachers communicate about instructional matters; for example: Technology-based instruction in classroom Correspondence instruction Face-to-face instruction Virtual/On-line Distance learning Center-based instruction ...</i> Reports the Ed-Fi Code mapped to the value selected for Instruction Language. - This mapping is normally hard-coded. An override mapping can be found in the Resource Preferences of the Ed-Fi Connection under the Sections resource. - Do not report if NULL or not mapped to an Ed-Fi Code.	C	Course Information	CustomCourse . value	

6	mediumOfInstructionDescriptor (string)	<i>The media through which teachers provide instruction to students and students and teachers communicate about instructional matters; for example: Technology-based instruction in classroom Correspondence instruction Face-to-face instruction Virtual/On-line Distance learning Center-based instruction ...</i> Reports the Ed-Fi Code mapped to the value selected for Instruction Method Override on Section Information. • Reports the Ed-Fi Code mapped to the value selected for Instruction Method / EE Location on Course Information if Section Information is NULL or not mapped to an Ed-Fi Code. • These mappings can be found in the Resource Preferences of the Ed-Fi Connection under the Sections resource. • Do not report if both fields are NULL or not mapped to an Ed-Fi Code.	C	Section Information Course Information	Section . teachingMethod Course . teachingMethod	✖
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7	sequenceOfCourse (number)	When a section is part of a sequence of parts for a course, the number of the sequence. If the course has only one part, the value of this section attribute should be 1. Reports the value selected in the SCED Sequence "Part n" field. • Report 1 if NULL. • Only reports if Section Enrollment Type is SC: Scheduled OR is NULL.	C	Course Information	Course . scedSequenceNum Course .program	✖
8	instructionalDelivery ModeDescriptor (string)	The delivery mode of instruction. E.g, On-ground, Online, etc Reports the Ed-Fi Code mapped to the value selected for Section Online Learning Override. • When Section Online Learning Override is NULL or not mapped, reports the Ed-Fi Code mapped to the value selected for Course Online Learning. • Does not report if both fields are NULL or not mapped.	C	Course Information Section Information	Course . distanceCode Section . distanceCode	EXT
9	instructionMinutes PerTerm (number)	Instruction minutes per term. Reports Instructional Minutes based on the following calculation:	C	N/A	N/A	EXT

- Determines **Instructional Minutes Scheduled** by counting the total Period Minutes associated with Periods the Section is scheduled into for the Term reporting for each instructional Day.
- Determines **Days Scheduled** by counting the total instructional Days for the Term reporting.
- Determines the **Course Period Minutes** by taking the value from Course **Period Minutes**.
 - This value must be a full integer.
- Determines the **Section Period Minutes** by taking the value from the Section **Period Minutes Override**.
 - This value must be a full interger.

Now that you have the necessary information calculated, use the below logic to determine which calculation to use:

- If **Section Period Minutes** has a value, then calculate **Instructional Minutes** using the following calculation:

$$\text{SECTION PERIOD MINUTES} * \text{DAYS SCHEDULED}$$
- If **Course Period Minutes** has a value, then calculate **Instructional Minutes** using the following calculation:

$$\text{COURSE PERIOD MINUTES} * \text{DAYS SCHEDULED}$$
- In all other situations, **Instructional Minutes** will report as the **Instructional Minutes Scheduled**.

10	availableCreditConversion	This data element is optional and does not report.	O	N/A	N/A	N/A
11	availableCredits	This data element is optional and does not report.	O	N/A	N/A	✗
12	availableCreditTypeDescriptor	This data element is optional and does not report.	O	N/A	N/A	N/A
13	courseLevelCharacteristics	This data element is optional and does not report.	O	N/A	N/A	N/A
14	educationalEnvironmentDescriptor	This data element is optional and does not report.	O	N/A	N/A	✗
15	locationReference	This data element is optional and does not report.	O	N/A	N/A	✗
16	locationSchoolReference	This data element is optional and does not report.	O	N/A	N/A	✗
17	offeredGradeLevels	This data element is optional and does not report.	O	N/A	N/A	N/A
18	officialAttendancePeriod	This data element is optional and does not report.	O	N/A	N/A	✗
19	populationServedDescriptor	This data element is optional and does not report.	O	N/A	N/A	N/A
20	programs	This data element is optional and does not report.	O	N/A	N/A	N/A
21	sectionName	This data element is optional and does not report.	O	N/A	N/A	N/A

Appendix