

# **KS Ed-Fi Suite v3.6.2, Data Standard v4.0: Course Offerings**

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## Summary

This entity represents an offering of a course by school during a session, representing the course catalog of available courses.

## Object Triggering Logic

| Action | Business Rule(s)  |
|--------|---|
| Post   | <p>Reports a record when a Section is scheduled into a term/period and the associated Course has a State Code entered.</p> <ul style="list-style-type: none"> <li>• Do not report a record if the any of the following exclusions are present: <ul style="list-style-type: none"> <li>○ Course is inactive (Active is unchecked)</li> <li>○ Course State Exclude</li> <li>○ Course State Code is NULL</li> <li>○ Calendar Exclude</li> <li>○ School Exclude</li> </ul> </li> <li>• One record will report for each unique Course State Code and Term Type combination.</li> </ul> |

|              |  |
|--------------|--|
| 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          | <ul style="list-style-type: none"> <li>• When the following information is changed on Course: <ul style="list-style-type: none"> <li>◦ Course ID (New Course)</li> <li>◦ State Code</li> <li>◦ Course Name</li> <li>◦ Course Number</li> </ul> </li> <li>• When any of the following information is changed on Section Information: <ul style="list-style-type: none"> <li>◦ Section ID (New Section)</li> <li>◦ Section Placement (Terms the Section is scheduled for)</li> <li>◦ Ed-FI Term Descriptor Override</li> </ul> </li> <li>• Changes to Resource Preferences mappings <b>do NOT trigger</b>. A manual resync must be performed on the resource if mappings are changed.</li> </ul> |
| Delete       | <ul style="list-style-type: none"> <li>• When the Course is deleted.</li> <li>• When the Course no longer has any Sections scheduled into any Section Placements (Terms).</li> </ul>   |

## Required Resources (Upstream)

The following resources must be sent prior to this resource:

- Schools (Pre-populated)
- Courses (Pre-populated)
- Sessions

## Dependent Resources (Downstream)

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

- Section

## 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 ' <b>RESOURCE</b> ' failed. <b>FIELD</b> is required.          | <p>An element of the JSON that is required is missing and needs to be added.</p> <ul style="list-style-type: none"> <li>• Double check that all bolded data elements below are reporting a valid value and no data elements below are reporting an invalid value.</li> </ul>  |
| 400: ' <b>RESOURCE</b> ' failed. <b>RESOURCE</b> reference could not be resolved. | <p>A resource that was referenced from a difference resource does not yet exist.</p> <ul style="list-style-type: none"> <li>• 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.</li> </ul> |

|  |  |
|--|--|
| <p>403: Authorization denied. The claim does not have any established relationships with the requested resource.</p>                             | <p>The key/secret being used does not have permission to send a record for the resource / referenced resource.</p> <ul style="list-style-type: none"> <li>• Double check your API credentials (key/secret). Sometimes specific keys/secrets cannot report specific resources.</li> <li>• 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.</li> <li>• 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.</li> </ul> |
| <p>404: Failed to delete '<b>RESOURCE</b>'. Record does not exist.</p>   | <p>The attempt to delete a specific Ed-Fi record ID in the ODS failed because it did not exist.</p> <ul style="list-style-type: none"> <li>• This error can be ignored. The ID was cleared from the Ed-Fi Identity Mapping Report and will not attempt to delete again.</li> </ul>   |
| <p>409: A natural key conflict occurred when attempting to create a new resource '<b>RESOURCE</b>' with a duplicate key.</p>                     | <p>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.</p> <ul style="list-style-type: none"> <li>• Check for duplicate data in your Campus site. If no duplicate data can be found, report the issue to Campus Support.             <ul style="list-style-type: none"> <li>◦ 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.</li> </ul> </li> </ul>   |
| <p>409: The resource (or a subordinate entity of the resource) cannot be deleted because it is a dependency of the '<b>RESOURCE</b>' entity.</p> | <p>The resource that the application is attempting to delete is referenced from another entity.</p> <ul style="list-style-type: none"> <li>• Use the Delete Tool to delete the referenced resource in the error message. Then retry the delete on the original resource that errored.</li> </ul>   |

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.

## 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.

|   | <b>Data Element Label</b>       | <b>Business Rule(s)</b>  | <b>Mandatory (M)<br/>Conditional (C)<br/>Optional (O)</b> | <b>Data Source<br/>GUI Path</b> | <b>Database Field</b> | <b>Uses Template Logic</b><br><br>(✓ / ✗ / EXT) |
|---|---------------------------------|--|---|---------------------------------|-----------------------|---|
| 1 | <b>localCourseCode</b> (string) | <p><i>The local code assigned by the School that identifies the course offering provided for the instruction of students.</i></p> <hr/> <p>Reports the <b>Course Number</b>.</p> | M   | Course Information              | Course.number         | ✓   |

|   |                                      |   |   |                    |                    |   |
|---|--------------------------------------|---|---|--------------------|--------------------|---|
| 2 | <b>courseReference</b> (reference)   | <p><i>A reference to the Course resource associated with the Course Offering being reported.</i></p> <hr/> <p>Reports the fields that are part of the Natural Key for the Course resource.</p> <p>Note:</p> <ul style="list-style-type: none"> <li>• Course Code is a combination of the state subject area code and the state course identifier.</li> <li>• Education Organization ID is always the KS state education organization id value of 100000000</li> </ul> | M | N/A                | N/A                | ✓ |
| 3 | <b>schoolReference</b> (reference)   | <p><i>A reference to the Schools resource associated with the Course Offering being reported.</i></p> <hr/> <p>Reports the fields that are part of the Natural Key for the Schools resource.</p>  | M | N/A                | N/A                | ✓ |
| 4 | <b>sessionReference</b> (reference ) | <p><i>A reference to the Sessions resource associated with the Course Offering being reported.</i></p> <hr/> <p>Reports the fields that are part of the Natural Key for the Sessions resource.</p>  | M | N/A                | N/A                | ✓ |
| 5 | courseLevelCharacteristics (array)   | <p><i>An unordered collection of courseOfferingCourseLevelCharacteristics.</i></p> <hr/> <p>Report the mapped Ed-Fi code value of the Course Level selected.</p>  | O | Course Information | course.courseLevel | ✓ |



|    |                           |   |   |                    |                          |     |
|----|---------------------------|---|---|--------------------|--------------------------|-----|
| 6  | localCourseTitle (string) | <p><i>The descriptive name given to a course of study offered in the school, if different from the course title.</i></p> <hr/> <p>Reports the <b>Course Name</b>.</p>                                   | O | Course Information | Course.name              | ✓   |
| 7  | offeredGradeLevels        | <p><i>Grade levels in which the course is offered.</i></p> <hr/> <p>For each course state code, report the mapped Ed-Fi GradeLevelDescriptor code associated with the Grade Level selected.</p>         | O | Course /Section    | course.stateCode         | ✓   |
| 8  | courseCredits             | <p><i>Credits required to complete the course.</i></p> <hr/> <p>Report the sum of the Credit value for all State Reported grading tasks records, rounded to the nearest hundredth decimal position.</p> | O | Course /Section    | GradingTaskCredit.credit | EXT |
| 9  | courseSequence            | <p><i>Sequence related to course pathways</i></p> <hr/> <p>Report value from Sequence field on Course Custom Data Elements.</p>   | O | Course Information | Sequence.course          | EXT |
| 10 | totalCourseSequence       | <p><i>Total sequence related to this Course</i></p> <hr/> <p>Report value from Sequence Total field on Course Custom Data Elements.</p>   | O | Course Information | Course.sequenceTotal     | EXT |

|    |                              |   |   |                    |                        |     |
|----|------------------------------|---|---|--------------------|------------------------|-----|
| 11 | courseDeliveryTypeDescriptor | <p><i>Delivery type of this course</i></p> <hr/> <p>Report the mapped Ed-Fi code value of the Delivery Type selected</p>                          | O | Course Information | Course.deliveryType    | EXT |
| 12 | courseProgramTypeDescriptor  | <p><i>Associated program type for this course</i></p> <hr/> <p>Report the mapped Ed-Fi code value of the Targeted Program selected.</p>           | O | Course Information | Course.targetedProgram | EXT |
| 13 | collegeCareerTypeDescriptor  | <p><i>Associated college career type for this course.</i></p> <hr/> <p>Report the mapped Ed-Fi code value of the College/Career Type selected</p> | O | Course Information | CareerCollege.course   | EXT |
| 14 | curriculumUses               | This data element is optional and does not report.  | O | N/A                | N/A                    | N/A |
| 15 | instructionalTimePlanned     | This data element is optional and does not report.  | O | N/A                | N/A                    | N/A |

## Appendix