

# **Core Ed-Fi Suite v3.6.1, Data Standard v4.0: Course Transcripts**

February  
2025

# Core Ed-Fi Suite v3.6.1, Data Standard v4.0: Course Transcripts

## Table of Contents

- [Summary](#)
- [Object Triggering Logic](#)
- [Required Resources \(Upstream\)](#)
- [Dependent Resources \(Downstream\)](#)
- [Error Log](#)
- [Object Data Elements Logic](#)
- [Appendix](#)

## Summary

This entity is the final record of a student's performance in their courses at the end of a semester or school year.

## Object Triggering Logic

| Action | Business Rule(s) |
|--------|------------------|
|--------|------------------|

|      |   |
|------|---|
| Post | <p>Reports a record when a student has an Enrollment that overlaps the configured year <b>AND</b> has Transcript records.</p> <ul style="list-style-type: none"><li>• The "Send Data for Current Year Records Only?" mapping will control if Course Transcripts are sent only for the configured year or for all years.<ul style="list-style-type: none"><li>◦ Checked = Sent only for the configured year.</li><li>◦ Unchecked = Sent for all years.<ul style="list-style-type: none"><li>▪ This is the default.</li></ul></li><li>◦ This mapping can be found in the Resource Preferences of the Ed-Fi Connection under the Student Academic Records resource.</li></ul></li><li>• A record is only reported for Enrollments (and Transcripts, depending on the above setting) in the same School Year as the Ed-Fi Connection sending the record.<ul style="list-style-type: none"><li>◦ School Year dates are defined in School Year Setup.<ul style="list-style-type: none"><li>▪ If Start Date is NULL, 07/01/StartYear will be used.</li><li>▪ If End Date is NULL, 06/30/EndYear will be used.</li></ul></li></ul></li><li>• Do not report a record if the any of the following exclusions are present:<ul style="list-style-type: none"><li>◦ Enrollment No Show</li><li>◦ Calendar Exclude</li><li>◦ School Exclude</li></ul></li></ul> |
|------|---|

|                                |   |
|--------------------------------|---|
| <p>Delete /Post</p> <p>Put</p> | <p>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.</p> <ul style="list-style-type: none"> <li>• When any of the following information is changed on Transcripts:             <ul style="list-style-type: none"> <li>○ Transcript ID (New Transcript)</li> <li>○ Attempted Credits</li> <li>○ Earned Credits</li> <li>○ Course Number</li> <li>○ Course Name</li> <li>○ Score</li> <li>○ Grade</li> </ul> </li> <li>• When any of the following information is changed on Enrollments:             <ul style="list-style-type: none"> <li>○ Enrollment ID (New Period Schedule)</li> <li>○ Start Date</li> <li>○ End Date</li> <li>○ No Show</li> </ul> </li> <li>• When any of the following information is changed on Course Information:             <ul style="list-style-type: none"> <li>○ Course ID (New Course)</li> <li>○ State Code</li> <li>○ Active</li> <li>○ Cross Site</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> |
| <p>Delete</p>                  | <ul style="list-style-type: none"> <li>• When the Transcript record is deleted.</li> <li>• When the associated Enrollment is deleted or made to no longer overlap the configured year.</li> <li>• When the Student is now excluded in some way.</li> <li>• When a record is in the Ed-Fi Identity Mapping Report but cannot be found on the Campus site.</li> </ul>   |

## Required Resources (Upstream)

The following resources must be sent prior to this resource:

- Courses
- Student Academic Records

## 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 ' <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.

|   | Data Element Label                                     | Business Rule(s)  | Mandatory (M)<br>Conditional (C)<br>Optional (O) | Data Source<br>GUI Path | Database Field   | Uses Template Logic<br><br>(✓ / ✗ / EXT) |
|---|--|---|--|-------------------------|--|--|
| 1 | <b>courseAttemptResultDescriptor</b> ( <i>string</i> ) | <p><i>The result from the student's attempt to take the course.</i></p> <hr/> <p>Reports the Ed-Fi Code mapped to the comparison between <b>Attempted Credits</b> and <b>Earned Credits</b>.</p> <ul style="list-style-type: none"> <li>This mapping can be found in the Resource Preferences of the Ed-Fi Connection under the Course Transcripts resource.</li> </ul> | M  | Transcripts             | <p>TranscriptCredit . creditsAttempted</p> <p>TranscriptCredit . creditsEarned</p> | ✓  |

|   |   |  |   |     |     |   |
|---|---|--|---|-----|-----|---|
| 2 | <b>courseReference</b> ( <i>reference</i> ) | <p><i>A reference to the Courses resource associated with the Course Transcript being reported.</i></p> <hr/> <p>Reports the fields that are part of the Natural Key for the Courses resource.</p> <p><b>NOTES:</b></p> <ul style="list-style-type: none"> <li>• The query to determine which Course to use returns all Courses that meet the following criteria: <ul style="list-style-type: none"> <li>○ Course is Active.</li> <li>○ Course is not a cross-site course.</li> <li>○ Calendar associated with the Course is not excluded.</li> <li>○ School associated with the Course is not excluded.</li> </ul> </li> <li>• The courseReference that is reported is determined by using the following priority order on the above query: <ul style="list-style-type: none"> <li>○ The School associated with the course matches the School listed on the Transcript.</li> <li>○ The Student has an Enrollment in a Calendar with the same End Year as the Calendar associated with the Course.</li> <li>○ The Student has an Enrollment in a Calendar with the same End Year as the Configuration End Year.</li> <li>○ All other returned results, where the highest courseID takes priority.</li> </ul> </li> </ul> | M | N/A | N/A | ✔ |
|---|---|--|---|-----|-----|---|

|   |  |  |   |             |                                    |   |
|---|--|--|---|-------------|------------------------------------|---|
| 3 | <b>studentAcademicRecordReference</b> ( <i>reference</i> ) | <p><i>A reference to the Student Academic Records resource associated with the Course Transcript being reported.</i></p> <hr/> <p>Reports the fields that are part of the Natural Key for the Student Academic Records resource.</p> | M | N/A         | N/A                                | ✓ |
| 4 | <b>alternativeCourseCode</b> ( <i>string</i> )             | <p><i>The local code assigned by the school that identifies the course offering, the code from an external educational organization, or other alternate course code.</i></p> <hr/> <p>Reports the <b>Course Number</b>.</p>          | O | Transcripts | TranscriptCourse .courseNumber     | ✓ |
| 5 | <b>alternativeCourseTitle</b> ( <i>string</i> )            | <p><i>The descriptive name given to a course of study offered in the school, if different from the CourseTitle.</i></p> <hr/> <p>Reports the <b>Course Name</b>.</p>   | O | Transcripts | TranscriptCourse .courseName       | ✓ |
| 6 | <b>attemptedCredits</b> ( <i>number</i> )                  | <p><i>The value of credits or units of value awarded for the completion of a course.</i></p> <hr/> <p>Report the <b>Credits Attempted</b>.</p>   | O | Transcripts | TranscriptCredit .creditsAttempted | ✓ |

|    |                                  |  |   |             |                                |   |
|----|----------------------------------|--|---|-------------|--------------------------------|---|
| 7  | courseTitle (string)             | <p><i>The descriptive name given to a course of study offered in a school or other institution or organization. In departmentalized classes at the elementary, secondary, and postsecondary levels (and for staff development activities), this refers to the name by which a course is identified (e.g., American History, English III). For elementary and other non-departmentalized classes, it refers to any portion of the instruction for which a grade or report is assigned (e.g., reading, composition, spelling, language arts).</i></p> <hr/> <p>Reports the <b>Course Name</b>.</p> | O | Transcripts | TranscriptCourse.courseName    | ✓ |
| 8  | earnedCredits (number)           | <p><i>The value of credits or units of value awarded for the completion of a course.</i></p> <hr/> <p>Report the <b>Credits Earned</b>.</p>  | M | Transcripts | TranscriptCredit.creditsEarned | ✓ |
| 9  | finalLetterGradeEarned (string)  | <p><i>The final indicator of student performance in a class as submitted by the instructor.</i></p> <hr/> <p>Reports the <b>Score</b> when it is an alpha character (not a number).</p>  | O | Transcripts | TranscriptCourse.score         | ✓ |
| 10 | finalNumericGradeEarned (number) | <p><i>The final indicator of student performance in a class as submitted by the instructor.</i></p> <hr/> <p>Reports the <b>Score</b> when it is a number.</p>   | O | Transcripts | TranscriptCourse.score         | ✓ |

|    |   |   |                       |             |                            |                                     |
|----|---|---|-----------------------|-------------|----------------------------|-------------------------------------|
| 11 | whenTakenGradeLevelDescriptor<br>(string)   | <p><i>Student's grade level at time of course.</i></p> <hr/> <p>Report the Ed-Fi Code mapped to the value selected for <b>Grade</b>.</p> <ul style="list-style-type: none"> <li>This mapping can be found in the Resource Preferences of the Ed-Fi Connection under the Grade Levels resource.</li> <li>Do not report if Grade is NULL or not mapped to an Ed-Fi Code.</li> </ul> | <input type="radio"/> | Transcripts | TranscriptCourse<br>.grade | <input checked="" type="checkbox"/> |
| 12 | externalEducation<br>OrganizationReference  | This data element is optional and does not report.  | <input type="radio"/> | N/A         | N/A                        | N/A                                 |
| 13 | academicSubjects                            | This data element is optional and does not report.  | <input type="radio"/> | N/A         | N/A                        | N/A                                 |
| 14 | alternativeCourse<br>IdentificationCodes    | This data element is optional and does not report.  | <input type="radio"/> | N/A         | N/A                        | N/A                                 |
| 15 | assigningOrganization<br>IdentificationCode | This data element is optional and does not report.  | <input type="radio"/> | N/A         | N/A                        | N/A                                 |
| 16 | attemptedCreditConversion                   | This data element is optional and does not report.  | <input type="radio"/> | N/A         | N/A                        | N/A                                 |
| 17 | attemptedCreditTypeDescriptor               | This data element is optional and does not report.  | <input type="radio"/> | N/A         | N/A                        | N/A                                 |
| 18 | courseCatalogURL                            | This data element is optional and does not report.  | <input type="radio"/> | N/A         | N/A                        | N/A                                 |
| 19 | courseRepeatCodeDescriptor                  | This data element is optional and does not report.  | <input type="radio"/> | N/A         | N/A                        | N/A                                 |
| 20 | creditCategories                            | This data element is optional and does not report.  | <input type="radio"/> | N/A         | N/A                        | N/A                                 |
| 21 | earnedAdditionalCredits                     | This data element is optional and does not report.  | <input type="radio"/> | N/A         | N/A                        | N/A                                 |
| 22 | earnedCreditConversion                      | This data element is optional and does not report.  | <input type="radio"/> | N/A         | N/A                        | N/A                                 |
| 23 | earnedCreditTypeDescriptor                  | This data element is optional and does not report.  | <input type="radio"/> | N/A         | N/A                        | N/A                                 |

|    |   |  |   |     |     |     |
|----|---|--|---|-----|-----|-----|
| 24 | externalEducation<br>OrganizationName OfInstitution | This data element is optional and does not report. | O | N/A | N/A | N/A |
| 25 | methodCreditEarnedDescriptor                        | This data element is optional and does not report. | O | N/A | N/A | N/A |
| 26 | partialCourseTranscriptAwards                       | This data element is optional and does not report. | O | N/A | N/A | N/A |

## Appendix