

## OneRoster® 1.1 Instructions

### Introduction

OneRoster® is an open standard developed by the IMS Global Learning Consortium® to normalize data transfer between school districts and Learning Tools such as McGraw Hill platforms. OneRoster® 1.1 is the current standard. This document provides general OneRoster® 1.1 guidelines and includes specific instructions for McGraw Hill platform integrations. For more information about OneRoster®, including file specifications, please visit the IMS Global website at <https://www.imsglobal.org>.

### General Information

Be sure to read this section, which provides helpful information about OneRoster® 1.1 files and best practices for preparing your files for use on McGraw Hill platforms.

- Classes on the Open Learning Platform can now have more than one product in a class.
- View the list of programs on McGraw Hill platforms—ConnectED and the Open Learning Platform: [What is my Learning Environment?](#)
- OneRoster® 1.1 data can be sent to McGraw Hill by uploading a zip of all CSV files or by using the RESTful API. The guidelines presented in these instructions provide rules and best practices for creating OneRoster® files and apply to both methods of transmitting data.
- If data is provided via CSV upload, a complete set of files must be included with each upload. OneRoster® 1.1 files must be uploaded in .zip format with no additional files or folders. Only files that include columns that are part of the IMS Global OneRoster® specification are accepted.
- The header row must be retained in each file, and all header fields must appear in the same order as listed in the tables below.
- All data fields and columns must be included, even if they are not required. If you have no data for a field, leave the field blank.
- A few OneRoster® fields are required for integration with McGraw Hill platforms even though they are not required in the OneRoster® standard. These fields are designated as Required in the tables below.
- All 'sourcedId' values must be unique within each file and must not change. Any change to the 'sourcedId' of an existing record can potentially disrupt users on McGraw Hill platforms. Most OneRoster® files utilize 'sourcedId's to reference records in other files. For example, each record in the users.csv references an 'orgSourcedId' to designate the school to which the user belongs.
- All data should be treated as case-sensitive. For example, 'sourcedId' defined as 's12345' must be referenced exactly as 's12345' in other dependent files.
- File names and header rows are also case-sensitive.
- Fields that contain data that is visible to users will be displayed exactly as it is provided in the file. Examples include 'title' in the classes.csv file or 'givenName' and 'familyName' in the users.csv file.
- All dates must be provided in YYYY-MM-DD format. Examples include the 'startDate' and 'endDate' fields in the academicSessions.csv file and the optional 'dateLastModified' field on all files.
- Classes can have more than one teacher in the class. For Open Learning Platform classes, the file enrolls all teachers in the class with full moderator privileges. To designate a primary teacher for the class, use the 'primary' field in the enrollments.csv. Enter 'true' for the primary teacher on the enrollments.csv. For ConnectED, the file enrolls the first teacher in the file as the teacher of record. That teacher, however, can then share the class with other teachers on ConnectED. Be aware that ConnectED class sharing functionality varies by product.
- The OneRoster® data feed serves as *the* source of record for assigning digital content. Content is automatically revoked from any user who is removed from the OneRoster® files.

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- Through Access Manager, ConnectED content can be assigned to any combination of courses, classes, and users. For other programs on the Open Learning Platform, content can only be assigned to courses and classes. Our Access Manager Instructions explain how to assign content: [Assign Content on Access Manager](#).
- Users that are not a teacher-of-record or do not have the 'teacher' role on the file, such as District Administrators, Principals, Curriculum Directors, Academic Coaches, etc., can get access to program content. Work with your Digital Integration Analyst during the set-up to determine the best method for your district. Options include having an Organization Administrator create teacher accounts manually or having these users self-register as a teacher. Once a user has an account, they then redeem content by entering a Master Code (applies to programs on ConnectED) or creating a class and adding a program (applies to programs on the Open Learning Platform).
- If OneRoster® data is sent to McGraw Hill via API, Access Manager automatically imports the data once a day at the time specified in your upload schedule on Access Manager.

### Differences between OneRoster® 1.0 and 1.1

This section explains the differences between OneRoster® 1.0 and 1.1 files. This section is intended to help districts that used OneRoster® 1.0 files and will transition to using OneRoster® 1.1. For those that are familiar with OneRoster® 1.0, the ★ icon indicates changes from the OneRoster® 1.0 standard, McGraw Hill requirements, or McGraw Hill recommendations. Either the field is new, or changes have been made to existing fields.

Below are two general differences between OneRoster® 1.0 and OneRoster® 1.1:

- OneRoster® 1.1 includes several additional resources files that automate content assignments on McGraw Hill platforms. If content assignments are made via the resources files, then a McGraw Hill district administrator does not need to manually assign content on Access Manager. The new resources files include the resources.csv, classResources.csv, and courseResources.csv.
- McGraw Hill systems only process OneRoster® 1.1 data in bulk mode rather than delta. Each time OneRoster® 1.1 files are processed, every individual file must include *all* records that should be processed by Access Manager.

### Best Practices

- When using the CSV format to send data to McGraw Hill, it is recommended to enclose each data field in double quotes. Any data field that includes commas *must* be enclosed in double quotes.
- When using the CSV format to send data to McGraw Hill, it is highly recommended to establish an automated SFTP upload in order to effectively manage content licenses and add newly-enrolled students to classes. IP address whitelisting is required for SFTP setup.
- When sending data via API, provide your Digital Integration Analyst a copy of your orgs.csv file prior to launching the integration. This enables McGraw Hill to create and/or rename schools so that the schools in your orgs.csv file match the schools listed in McGraw Hill systems.
- Any errors or issues encountered when processing the OneRoster® files are displayed on the Alerts page on Access Manager. Ignore alerts displayed on Access Manager that are related to unused files or fields. Read the [Access Manager: Fixing Common Errors](#) document for more information about how to fix errors and resolve Alerts. If your upload fails, we notify you via email.

### Instructions for Creating OneRoster® 1.1 Files

The remainder of this document provides instructions and requirements for creating OneRoster® 1.1 files. The yellow-shaded rows indicate which fields are required or extremely important based on the OneRoster® 1.1 standard or McGraw Hill platform requirements.

## Organizations File (orgs.csv)

This section provides information about the orgs.csv file.

- The orgs.csv file must define all organizations (schools) in the district.
- The 'parentSourcedId' field is not required. If this field is populated, it must reference a valid 'sourcedId' of another organization defined in the orgs.csv file.
- Each 'sourcedId' in the orgs.csv file must be unique within the orgs.csv file.
- The 'sourcedId' used to identify a school in the orgs.csv file will be referenced in the 'orgSourcedId' or 'schoolSourcedId' fields in the courses.csv, classes.csv, users.csv and enrollments.csv files.
- A suggested 'sourcedId' is any unique value which identifies the school in your district systems, such as a school code or school location code.
- If a user references multiple 'orgSourcedId' values, the *first* 'orgSourcedId' listed will be treated as the user's primary school site. **Note:** Any change to this field for a teacher assigns the teacher to a new primary school site and replaces all existing classes with new classes at the new school location. It is **highly recommended** to use only one 'orgSourcedID' (school location) for each user.
- ★ **Changes to the OneRoster® 1.1 orgs.csv:**
  - The 'metadata.classification', 'metadata.gender', and 'metadata.boarding' fields have been removed.

### Organizations File Detail by Field

Field Name	Required	Format	Description
<b>sourcedId</b>	YES	string	Values must be unique for each organization. This value is used in other files and fields to reference this organization. A suggested value is school code or location code.
<b>status</b>	NO	string	Not used for the McGraw Hill integration and can be left blank. If populated, fields must contain one of the following values: 'active'   'inactive'   'tobedeleted'
<b>dateLastModified</b>	NO	date	This value provides the date that the record was last modified. This field is not used for the McGraw Hill integration and can be left blank. If populated, fields must contain a valid date formatted as YYYY-MM-DD.
<b>name</b>	YES	string	This value provides the name of the organization (school). The value is displayed as the school name on McGraw Hill platforms and is visible to users.
<b>type</b>	YES	string	This value provides the type of the organization. Fields must contain one of the following values: 'school'   'local'   'state'   'national'   'department'   'district'
<b>identifier</b>	NO	string	Not used for the McGraw Hill integration and can be left blank. Entered data will be ignored.
<b>parentSourcedId</b>	NO	sourcedId	Not used for McGraw Hill integration and can be left blank. If populated, fields must contain a valid 'sourcedId' of another organization.

## Users File (users.csv)

This section provides information about the users.csv file.

- The users.csv file defines all users who need access to content on McGraw Hill platforms, such as students and teachers.
- The users.csv file can also include users who are not a teacher-of-record but need access to content, such as District Administrators, Principals, Curriculum Directors, Resource Teachers, Academic Coaches, etc. Individual users can be assigned ConnectED content via the file or the district administrator can assign ConnectED content to users on Access Manager. For products on the Open Learning Platform, assigning content requires that each user be associated with a class, which requires amending several OneRoster® files. A suggested alternative is to have an Organization Administrator manually create teacher accounts. Work with your Digital Integration Analyst during the integration set-up process to determine the best option for your district.
- There are five possible fields in the users.csv file that can be selected as the user's unique ID (UID). These fields are: 'sourcedId', 'username', 'userId', 'identifier', or 'email'. The UID must be a value that does not change. Select one of those field as the UID and use that field for both teacher UIDs and student UIDs.
- The value selected as the UID must be passed through SSO for each user. This will be verified prior to committing OneRoster® data to McGraw Hill platforms.
- Once a user's account has been created, do not change the UID in the users.csv as this can potentially disrupt access. Changing the UID value creates a new user account, and the user will not have access to work that was previously completed.
- If a user references multiple 'orgSourcedId' values, the *first* 'orgSourcedId' listed in the file will be treated as the user's primary school site. ⚠ Any change to this field for a teacher assigns the teacher to a new primary school site and replaces all existing classes with new classes at the new school location. It is **highly recommended** to use only one 'orgSourcedId' (school location) for each user.
- The 'agents' field is not required. If this field is populated, it must reference the valid 'sourcedId' of another user defined in the users.csv file.
- Each 'sourcedId' in the users.csv file must be unique within the users.csv file. The 'sourcedId' used to identify a user in the users.csv file will be referenced in the 'userSourcedId' field in the enrollments.csv file.
- A suggested 'sourcedId' value is any unique value which identifies the user within district systems and does not change. Examples include the student ID for students and employee ID for teachers and administrators.
- ★ **Changes to the OneRoster® 1.1 users.csv:**
  - The 'enabledUser', 'middleName', 'grades', and 'password' fields are new.
  - The 'agents' field has been renamed to 'agentSourcedIds'.

## Users File Detail by Field

Field Name	Required	Format	Description
<b>sourcedId</b>	YES	string	This value must be unique for each user and is used to reference the user in other files. A suggested value is the student ID for students and employee ID for teachers and administrators.
<b>status</b>	NO	string	Not used for the McGraw Hill integration and can be left blank. If populated, fields must contain one of the following values: 'active'   'inactive'   'tobedeleted'

<b>dateLastModified</b>	NO	date	This value provides the date that the record was last modified. This field is not used for the McGraw Hill integration and can be left blank. If populated, fields must contain a valid date formatted as YYYY-MM-DD.
<b>enabledUser</b> ★	YES	Boolean	This field is required per the OneRoster® specification but is not utilized by McGraw Hill.
<b>orgSourcedIds</b>	YES	sourcedId	This field provides the 'sourcedId' of the organization to which the user belongs. Each user should only be associated with one organization (school).
<b>role</b>	YES	string	This must contain one of the following values: 'teacher'   'student'   'parent'   'guardian'   'relative'   'aide'   'administrator'
<b>username</b>	YES	string	This value is the user's username.
<b>userIds</b>	NO but recommended	string	This is an optional field that can provide an additional unique ID. Example value: SIS ID.
<b>givenName</b>	YES	string	This value is the user's first name.
<b>familyName</b>	YES	string	This value is the user's last name.
<b>middleName</b> ★	NO	string	This value is the user's middle name. McGraw Hill platforms process a middle initial only. This field can be left blank.
<b>identifier</b>	NO but recommended	string	This is an optional field that can provide an additional unique ID. Example values: 'AMAccountName' or 'userPrincipalName' from Active Directory.
<b>email</b>	Teachers: YES Students: NO	string	This value is the user's email address. This field is required for teachers and recommended for students.
<b>sms</b>	NO	string	Not used for the McGraw Hill integration and can be left blank. Entered data will be ignored.
<b>phone</b>	NO	string	Not used for the McGraw Hill integration and can be left blank. Entered data will be ignored.
<b>agentSourcedIds</b> ★	NO	sourcedId	Not used for the McGraw Hill integration and can be left blank. This field was labeled 'agents' in the OneRoster® 1.0 file. If populated, the value must contain the valid 'sourcedId' of another user.
<b>grades</b> ★	NO	string	Not used for the McGraw Hill integration and can be left blank. Entered data will be ignored. A student's grade level on McGraw Hill platforms is set by 'classes.grades' or 'courses.grades'.
<b>password</b> ★	NO	string	Not used for the McGraw Hill integration and can be left blank. Entered data will be ignored. All Users set up through a OneRoster® file will access McGraw Hill platforms via single sign-on.

### Courses File (courses.csv)

This section provides information about the courses.csv file. A course defines all of the classes using a specific curriculum or McGraw Hill program. Defining courses appropriately can simplify assigning content. For example, if all eighth-grade math classes across the district use a specific Algebra program, define this as a course. When you then assign a specific McGraw Hill program to this course, all associated eighth-grade math classes across the district will be assigned that specific Algebra program.

- The courses.csv file must define each course from which one or more classes are scheduled.
- Each class does not need its own course. To ensure correct and efficient content distribution, each course in the courses.csv file should define one or more classes that utilize the same curriculum or McGraw Hill program, while each class on the classes.csv should define an individual class within that course.
- Each 'sourcedId' in the courses.csv file must be unique within the courses.csv file. The 'sourcedId' used to identify a course in the courses.csv file will be referenced in the 'courseSourcedId' field on the classes.csv.
- McGraw Hill digital content is assigned to courses on Access Manager using the course 'sourcedId'. If a course 'sourcedId' changes, the new 'sourcedId' is processed as a new course and content must be reassigned to that course.
- A suggested 'sourcedId' value is any unique value that identifies the course within district systems and does not change from year to year.
- The courseCode field is technically an optional field; however, McGraw Hill requires this field to make it easier to map courses and content on Access Manager.
- ★ **Changes to the OneRoster® 1.1 courses.csv:**
  - The 'metadata.duration' field has been removed.
  - The 'subjectCodes' field is new.
  - The 'schoolYearId' is now 'schoolYearSourcedId'.
  - The 'grade' is now 'grades'.
  - The 'orgSourcedId' field is now required.

### Courses File Detail by Field

Field Name	Required	Format	Description
<b>sourcedId</b>	YES	string	This value must be unique for each Course and is used to reference the course in other files. A suggested value is a unique value that identifies the course within the district SIS.
<b>status</b>	NO	string	Not used for McGraw Hill integration and can be left blank. If populated, the value must contain one of the following: 'active'   'inactive'   'tobedeleted'
<b>dateLastModified</b>	NO	date	This value provides the date that the record was last modified. This field is not used for the McGraw Hill integration and can be left blank. If populated, fields must contain a valid date formatted as YYYY-MM-DD.
<b>schoolYearSourcedId</b> ★	NO	sourcedId	This field has been renamed. The value references the 'sourcedId' of an academic session. Not used for the McGraw Hill Integration - can be left blank. If populated, the value must reference the valid 'sourcedId' of an academic session.

<b>title</b>	YES	string	This value provides the name or title of the course as it appears in the district SIS. This value is used to reference the course when assigning McGraw Hill content to courses.
<b>courseCode</b>	YES (required for McGraw Hill but technically an optional field)	string	This value provides the course code. This field is technically an optional field; however, including the courseCode makes it easier to manually assign content on Access Manager.
<b>grades</b> ★	NO but recommended	string	This field has been renamed. The value sets the grade level for each student account on McGraw Hill platforms if the 'classes.grade' is not populated. If both the 'courses.grade' and 'classes.grade' are populated, the value from the classes.csv file is used. Accepted values: 'PK', 'K', '1', '2', '3', '4', '5', '6', '7', '8', '9', '10', '11', '12', 'NA'. If a grade range is provided, such as 'K-5', then the highest grade in the range is set as the student's grade. If left blank, the student grade will be set to 'NA'.
<b>orgSourcedId</b> ★	YES	string	Required to adhere to OneRoster specifications, but it is not used for McGraw Hill integration. A user's school site on McGraw Hill platforms is set by the 'orgSourcedIds' field in the users.csv file.
<b>subjects</b>	NO	string	Not used for the McGraw Hill integration and can be left blank. Entered data will be ignored.
<b>subjectCodes</b> ★	NO	string	Not used for McGraw Hill integration and can be left blank. Entered data will be ignored.

### Classes File (classes.csv)

This section provides information about the classes.csv file.

- The classes.csv file must define all classes which should be created on McGraw Hill platforms.
- The 'title' field on the classes.csv is used as the class name on McGraw Hill platforms and is visible to teachers and students. Users may need to utilize the class name to differentiate between multiple classes within the same content area. If a teacher has multiple classes with the exact same 'title', all students will be rostered to a single class. To ensure correct rostering, it is highly recommended that the title field contain a recognizable name that includes the content area or course name, the teacher's last name, the section or period number, and the school year abbreviation. An example is provided below.

**Class name example:** For a teacher with four Biology classes, each class must have a unique 'title' value. If all four classes use 'Biology' as the 'title,' then all of the teacher's students will be rostered to a single class with 'Biology' as the class name. To roster classes appropriately, the 'title' needs to include additional information so that the classes are created as separate entities, such as 'Biology Smith Period 1 2020-21,' or 'Biology Smith P1 2020-21.'

- A change to the 'title' field for any existing class results in a newly created class. The original class will no longer receive roster updates. If the class is associated with a my.mheducation.com product, the original class is removed from the platform. A new class with the new 'title' will be created on the platform. If the class is associated with a ConnectED product, the original class and the new class will appear on ConnectED and only the newly created class receives roster updates. This is confusing for both teachers and students. If this does occur, teachers have the option to manually remove the class from ConnectED.
- Each 'sourcedId' in the classes.csv file must be unique within the classes.csv file. The 'sourcedId' used to identify a class in the classes.csv file will be referenced in the 'classSourcedId' field in the enrollments.csv.
- A suggested 'sourcedId' value is any value that identifies the class within district systems, such as the concatenation of the section number and the class code.
- Each class does not need its own course. To ensure correct and efficient content distribution, each course in the courses.csv file should define one or more classes that utilize the same curriculum or McGraw Hill program, while each class in the classes.csv should define an individual class within that course.
- ★ **Changes to the OneRoster® 1.1 classes.csv:**
  - Two new fields are 'subjectCodes' and 'periods'.
  - The 'grade' field is now 'grades'.
  - The 'termSourcedId' field is now 'termSourcedIds'.

#### Classes File Detail by Field

Field Name	Required	Format	Description
<b>sourcedId</b>	YES	string	This value must be unique for each class and is used to reference the class in other files. A suggested value is the concatenation of section number and class code.
<b>status</b>	NO	string	Not used for McGraw Hill integration and can be left blank. If populated, the value must contain one of the following: 'active'   'inactive'   'tobedeleted'
<b>dateLastModified</b>	NO	date	This value provides the date that the record was last modified. This field is not used for the McGraw Hill integration and can be left blank. If populated, fields must contain a valid date formatted as YYYY-MM-DD.
<b>title</b>	YES <b>IMPORTANT</b>	string	This value provides the name of the class. The value is used as the class name on McGraw Hill platforms and is visible to users. It is used to reference the class when mapping or assigning McGraw Hill content to classes via Access Manager.
<b>grades</b> ★	NO but recommended	string	This field has been renamed. This value sets the grade level for each student account on McGraw Hill platforms. Accepted values: 'PK', 'K', '1', '2', '3', '4', '5', '6', '7', '8', '9', '10', '11', '12', 'NA'. If a grade range is provided, such as 'K-5', then the highest grade in the range is set as the student's grade. If left blank, the student grade will be set to 'NA'.



<b>courseSourcedId</b>	NO but recommended	sourcedId	This value references the 'sourcedId' of a course. It enables assigning content by course rather than by class, which is more efficient. Content assigned by course will be distributed to all classes associated with the course.
<b>classCode</b> ★	NO	string	This field was previously recommended. The value provides the class code for the class.
<b>classType</b>	YES	string	This field must contain one of the following values: 'scheduled'   'homeroom' This field is required to adhere with the IMS Global OneRoster® specification, but the field is not used by McGraw Hill platforms.
<b>location</b>	NO	string	Not used for McGraw Hill integration and can be left blank. Entered data will be ignored.
<b>schoolSourcedId</b>	YES	sourcedId	This value references the 'sourcedId' of an organization.
<b>termSourcedIds</b> ★	YES <b>IMPORTANT</b>	sourcedId	This field has been renamed. The value references the 'sourcedId' of an academic session. This value controls when the class and users associated to it are set up on McGraw Hill platforms. The value is used to manage digital content licenses.
<b>subjects</b>	NO	string	Not used for McGraw Hill integration and can be left blank. Entered data will be ignored.
<b>subjectCodes</b> ★	NO	string	Not used for McGraw Hill integration and can be left blank. Entered data will be ignored.
<b>periods</b> ★	NO	string	Not used for McGraw Hill integration and can be left blank. Entered data will be ignored.

### Enrollments File (enrollments.csv)

This section provides information about the enrollments.csv file.

- The enrollments.csv file must define all enrollments for all classes that should be created on McGraw Hill platforms.
- Each individual student and teacher must have a separate record in the enrollments.csv for each scheduled class.
- The data provided in all other files is linked together in the enrollments.csv file, and this sets up classes. Each enrollments.csv record provides a 'userSourcedId', 'classSourcedId', 'schoolSourcedId', and role for each user that is associated with a class. Each class will have several enrollments.csv records, which define the teacher and enrolled students.
- Each 'sourcedId' in the enrollments.csv file must be unique within the enrollments.csv file.
- A suggested 'sourcedId' is the concatenation of the user's 'sourcedId' and the class 'sourcedId'.
- Use the 'primary' field to designate the primary teacher if more than one teacher is enrolled in a class. Note that co-teachers are only supported for my.mheducation.com classes.
- ★ **Changes to the OneRoster® 1.1 enrollments.csv:**
  - The 'status' and 'dateLastModified' fields have been re-ordered and now appear consecutively after the 'sourcedId' field.
  - Two new fields are 'beginDate' and 'endDate'.

### Enrollments File Detail by Field

Field Name	Required	Format	Description
<b>sourcedId</b>	YES	string	This must be unique for each enrollment. A suggested value is the concatenation of the user 'sourcedId' and class 'sourcedId'.
<b>status</b> ★	NO	string	This field is in a new location. It is not used for McGraw Hill integration and can be left blank. If populated, the value must contain one of the following: 'active'   'inactive'   'tobedeleted'
<b>dateLastModified</b> ★	NO	date	This field is in a new location. The value provides the date that the record was last modified. This field is not used for the McGraw Hill integration and can be left blank. If populated, values must contain a valid date formatted as YYYY-MM-DD.
<b>classSourcedId</b>	YES	sourcedId	This value references the 'sourcedId' of a class. The user referenced in the 'userSourcedId' field will be associated to this class.
<b>schoolSourcedId</b>	YES	sourcedId	This value references the 'sourcedId' of an Organization.
<b>userSourcedId</b>	YES	sourcedId	This value references the 'sourcedId' of a User. This User will be associated to the Class referenced in 'classSourcedId'.
<b>role</b>	YES	string	This must contain one of the following values: 'student'   'teacher'   'parent'   'guardian'   'relative'   'aide'   'administrator'
<b>primary</b>	NO	Boolean	The value is either 'true' or 'false'. Use this field if more than one teacher is enrolled in a class. Indicate the primary teacher by entering the value 'true' in this field for the primary teacher. Be aware that ConnectED classes do not support enrolling co-teachers via OneRoster® files.
<b>beginDate</b> ★	NO	date	This field defines the date that McGraw Hill platforms should begin processing the enrollment. The 'startDate' on the enrollments.csv determines when an enrollment begins. If the value is populated, the enrollment will be processed by McGraw Hill platforms one day prior to the earliest date associated to it ('academicSessions.startDate' or 'enrollments.beginDate').
<b>endDate</b> ★	NO	date	This field defines the date that McGraw Hill platforms should no longer process the enrollment. The 'endDate' on the enrollments.csv determines when an enrollment ends. If the value is populated, the enrollment will no longer be processed by McGraw Hill platforms upon reaching the latest date associated to it ('academicSessions.endDate' or 'enrollments.endDate').

## Academic Sessions File (academicSessions.csv)

This section provides information about the academicSessions.csv file.

- The academicSessions.csv file must define all periods of time during which courses and/or classes are scheduled during the school year.
- Academic sessions are used to control when users and classes are created and assigned digital content. Defining accurate academic sessions and referencing the correct academic session for each class and course is required to ensure effective management of content licenses.
- If both full-year and semester courses and classes use the same content, please consult with your Digital Integration Analyst to ensure that content is distributed correctly.
- All classes and/or courses that are associated with different schools in the district can reference the same academic session. Defining separate academic sessions for each school is not required.
- Each 'sourcedId' in the academicSessions.csv file must be unique within the academicSessions.csv file. The 'sourcedId' used to identify an academic session in the academicSessions.csv file will be referenced in the 'schoolYearId' field in the courses.csv and/or the 'termSourcedId' field in the classes.csv.
- Suggested 'sourcedId' values are 'FY' for Full-Year, 'S1' for Semester 1, and 'S2' for Semester 2.
- **★ Changes to the OneRoster® 1.1 academicSessions.csv:**
  - The 'schoolYear' field is new.

### Academic Sessions File Detail by Field

Field Name	Required	Format	Description
<b>sourcedId</b>	YES	string	This value must be unique for each academic session. Suggested values are 'FY' for Full Year, 'S1' for Semester 1, 'S2' for Semester 2, etc.
<b>status</b>	NO	string	Not used for the McGraw Hill integration and can be left blank. If populated, fields must contain one of the following values: 'active'   'inactive'   'tobedeleted'
<b>dateLastModified</b>	NO	date	This value provides the date that the record was last modified. This field is not used for the McGraw Hill integration and can be left blank. If populated, values must contain a valid date formatted as YYYY-MM-DD.
<b>title</b>	YES	string	This field provides the name of the academic session.
<b>type</b>	YES	string	Fields must contain one of the following values: 'term'   'gradingPeriod'   'schoolYear'   'semester'
<b>startDate</b>	YES <b>IMPORTANT</b>	string	This field provides the start date for the academic session and is used to manage digital content licenses. Users and classes will be set up on this start date. The value must contain a valid date in YYYY-MM-DD format.
<b>endDate</b>	YES <b>IMPORTANT</b>	string	This field provides the End Date for the academic session and is used to manage digital content licenses. Content will be revoked from users when the end date is reached. The value must contain a valid date in YYYY-MM-DD format.
<b>parentSourcedId</b>	NO	sourcedId	Not used for McGraw Hill integration and can be left blank. If populated, the value must contain the valid sourcedId of another Academic Session.

schoolyear ★	YES	year	This field is required to adhere with IMS Global OneRoster® specifications, but it is not used by McGraw Hill. This field must designate the year the academic session ends in YYYY format.
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### ★ Resources File (resources.csv)

This section provides information about the resources.csv file. This is a new file per the OneRoster® 1.1 specification.

- The resources.csv file must define all McGraw Hill products that will be assigned via the OneRoster® file.
- Resources are referenced in the courseResources.csv and the classResources.csv files. These files assign digital content to courses and classes.
- Notes regarding assigning content:
  - Content is assigned to courses in the courseResources.csv file and classes in the classResources.csv file.
  - If content is assigned via the above resources files, you should not manually assign the content on Access Manager.
  - One exception to the above statement is assigning ConnectED content to users on Access Manager. You can assign ConnectED content to users manually even when using the class and course resources files to assign content.
- You are not required to include all content on the resources.csv file. Content excluded from the resources.csv can be assigned manually on Access Manager: [Assign Content on Access Manager](#).
- We recommend setting up all course-level content assignments through the courseResources.csv file. We also recommended that the classResources.csv file be used to distribute content to specific classes. Content should be assigned through the courseResources.csv file whenever possible and the classResources.csv file can be used to assign materials that are only used for certain classes within a given course (i.e. English Learner, WonderWorks, Cerego, ALEKS).
- The resource 'title' is not required, but it is highly recommended. This value is not directly used by McGraw Hill systems but including it will improve the readability of the resources.csv file.
- Each product should only have one record on the resources.csv file. If multiple Master Codes are available for a product, use any one of them to assign the full number of available seats. Use the Master Code with the latest end date. Only one record per product is needed on the resources.csv file.
- The suggested resources 'sourcedId' value is the product's 16-character Master Code with dashes omitted.
- The 'vendorResourceId' field must be the product's 16-character Master Code with dashes omitted. For example, the Master Code ABCD-1234-EFGH-5678 must be formatted as 'ABCD1234EFGH5678'.

**Resources File Detail by Field** (★ this is a new file, so all fields are new)

Field Name	Required	Format	Description
<b>sourcedId</b>	YES	Master Code	This value must be unique for each resource. The value is used in other files to reference the resource. The suggested value is a 16-character Master Code with dashes omitted.
<b>status</b>	NO	string	Not used for the McGraw Hill integration and can be left blank. If populated, the value must contain one of the following: 'active'   'inactive'   'tobedeleted'
<b>dateLastModified</b>	NO	date	This value provides the date that the record was last modified. This field is not used for the McGraw Hill integration and can be left blank. If populated, fields must contain a valid date formatted as YYYY-MM-DD.
<b>vendorResourceId</b>	YES	Master Code	This field must contain the product's 16-character Master Code with dashes omitted. Format example: ABCD1234EFGH5678
<b>title</b>	NO but recommended	string	It is highly recommended that this field contain the product title.
<b>roles</b>	NO	string	Not used for McGraw Hill integration and can be left blank. Entered data will be ignored.
<b>importance</b>	NO	string	Not used for McGraw Hill integration and can be left blank. Entered data will be ignored.
<b>vendorId</b>	YES	ID	McGraw Hill resources must have a 'vendorId' value of 'vnd.mhe'.
<b>applicationId</b>	NO	ID	Not used for McGraw Hill integration and can be left blank. Entered data will be ignored.

★ **Course Resources File (courseResources.csv)**

This section provides information about the courseResources.csv file. This is a new file per the OneRoster® 1.1 specification.

- The courseResources.csv file is optional. It is used to associate resources to courses.
- Content which is assigned to courses on the courseResources.csv file cannot be assigned to courses on Access Manager. Course resources must be assigned via the file or assigned manually on Access Manager. Only one distribution method can be used.
- It is recommended to set up all course assignments through the courseResources.csv file.
- Each courseResources.csv record includes a 'courseSourcedId' and a 'resourceSourcedId' to associate a resource to a course. Each user in a class that is part of the course will be assigned the resource.
- The 'title' field is optional but can improve the readability of the courseResources.csv file. If populated, the 'title' field can contain information to identify the course that content is being assigned to, such as 'courses.title' and 'courses.courseCode'. This value is not visible to users on McGraw Hill platforms.
- The suggested 'sourcedId' value is a concatenation of the course's 'sourcedId' and the resource's 'sourcedId'. The unique value identifies the course/resource association.

**Course Resources File Detail by Field** (★ this is a new file, so all fields are new)

Field Name	Required	Format	Description
<b>sourcedId</b>	YES	string	This value must be unique for each course/resource association. The suggested value is a concatenation of the 'courses.sourcedId' and the 'resources.sourcedId'.
<b>status</b>	NO	string	Not used for McGraw Hill integration and can be left blank. If the value is populated, it must contain one of the following: 'active'   'inactive'   'tobedeleted'
<b>dateLastModified</b>	NO	date	This value provides the date that the record was last modified. This field is not used for the McGraw Hill integration and can be left blank. If populated, fields must contain a valid date formatted as YYYY-MM-DD.
<b>title</b>	NO	string	This value identifies the course to which content will be assigned. Suggested values are the 'courses.title' or the 'courses.courseCode'.
<b>courseSourcedId</b>	YES	sourcedId	This value references the 'sourcedId' of a course.
<b>resourceSourcedId</b>	YES	sourcedId	This value references the 'sourcedId' of a resource.

★ **Class Resources File (classResources.csv)**

This section provides information about the classResources.csv file. This is a new file per the OneRoster® 1.1 specification.

- The classResources.csv file is optional. It is used to associate resources to classes.
- Content which is assigned to classes on the classResources.csv file cannot be assigned to classes on Access Manager. Class resources must be assigned via the file or assigned manually on Access Manager. Only one distribution method can be used.
- The classResources.csv file can be used to assign content to individual classes when all classes within a given course do not use a specific resource. For example, classResources.csv can be used to assign WonderWorks to literacy intervention classes within a parent 'Language Arts' Course which uses Reading Wonders.
- Each classResources.csv record provides a 'classSourcedId' and a 'resourceSourcedId' to associate a resource to a class. Each user in a class on the enrollments.csv file will be assigned the resource.
- The 'title' field is optional but can improve the readability of the classResources.csv file. If populated, the 'title' field can contain information to identify the class that content is being assigned to, such as 'classes.title' and 'classes.courseCode'. This value is not visible to users on McGraw Hill platforms.
- The suggested 'sourcedId' value is a concatenation of the class's sourcedId and the resource's 'sourcedId'. The unique value identifies the class/resource association.

**Class Resources File Detail by Field** (★ this is a new file, so all fields are new)

Field Name	Required	Format	Description
<b>sourcedId</b>	YES	string	This value must be unique for each class/resource association. The suggested value is a concatenation of the 'class.sourcedId' and the 'resources.sourcedId'.
<b>status</b>	NO	string	Not used for McGraw Hill integration and can be left blank. If the value is populated, it must contain one of the following: 'active'   'inactive'   'tobedeleted'
<b>dateLastModified</b>	NO	date	This value provides the date that the record was last modified. This field is not used for the McGraw Hill integration and can be left blank. If populated, fields must contain a valid date formatted as YYYY-MM-DD.
<b>title</b>	NO	string	This value identifies the class to which content will be assigned. Suggested values are the 'courses.title' or the 'courses.courseCode'.
<b>classSourcedId</b>	YES	sourcedId	This value references the 'sourcedId' of a class.
<b>resourceSourcedId</b>	YES	sourcedId	This value references the 'sourcedId' of a resource.

★ **Manifest File (manifest.csv)**

This section provides information about the manifest.csv file. This is a new file per the OneRoster® 1.1 specification.

- The manifest.csv file defines which files are included in the OneRoster® data feed sent to McGraw Hill.
- The manifest.csv file contains two columns ('propertyName' and 'value'). Each row defines a single property/value pair.
- A property is included for each OneRoster® file. All files that are included in the data feed should be labeled as 'bulk' and all optional files that are not included in the data feed should be labeled as 'absent'.
- Access Manager processes OneRoster® 1.1 data in 'bulk' mode only (not 'delta'). Every time the OneRoster® 1.1 data feed is processed each file must include all records that should be processed by McGraw Hill systems.
- The categories.csv, demographics.csv, linItems.csv, and results.csv files are not used by McGraw Hill platforms. It is recommended that these files be excluded from the data feed and labeled as 'absent'.

**Manifest File Detail by Field** (★ this is a new file, so all fields are new)

Field Name	Required	Format	Description
<b>manifest.version</b>	YES	1.0	This value defines the version of the manifest. It must initially be set to '1.0'. This field is not used for the McGraw Hill integration and can remain '1.0' indefinitely.
<b>oneroster.version</b>	YES	1.1	Defines the file set as OneRoster® 1.1. The value must be set to '1.1'.
<b>file.academicSessions</b>	YES	bulk	The academicSessions.csv file is required for the McGraw Hill integration. This file must be processed in bulk mode.

<b>file.categories</b>	YES	Recommended value is absent	The categories.csv file is not used for the McGraw Hill integration. It is recommended to omit the categories file and label it as absent in the manifest.csv file.
<b>file.classes</b>	YES	bulk	The classes.csv file is required for the McGraw Hill integration. This file must be processed in bulk mode.
<b>file.classResources</b>	YES	bulk or absent	McGraw Hill recommends including the classResources.csv file. This optional file is used to assign digital resources through the data feed.
<b>file.courses</b>	YES	bulk	This file is required for the McGraw Hill integration. This file must be processed in bulk mode.
<b>file.courseResources</b>	YES	bulk or absent	McGraw Hill recommends including the courseResources.csv file. This optional file is used to assign digital resources through the data feed.
<b>file.demographics</b>	YES	Recommended value is absent	The demographics.csv file is not used for McGraw Hill integration. It is recommended to omit the file and label it as 'absent'.
<b>file.enrollments</b>	YES	bulk	The enrollments.csv file is required for the McGraw Hill integration. This file must be processed in bulk mode.
<b>file.lineltems</b>	YES	Recommended value is absent	The lineltems.csv file is not used for McGraw Hill integration. It is recommended to omit the file and label it as 'absent'.
<b>file.orgs</b>	YES	bulk	The orgs.csv file is required for the McGraw Hill integration. This file must be processed in bulk mode.
<b>file.resources</b>	YES	bulk or absent	McGraw Hill recommends including the resources.csv file. This optional file is used to assign digital resources through the data feed.
<b>file.results</b>	YES	Recommended value is absent	The results.csv file is not used for the McGraw Hill integration. It is recommended to omit the file and label it as 'absent'.
<b>file.users</b>	YES	bulk	The users.csv file is required for the McGraw Hill integration. The file must be processed in bulk mode.
<b>source.systemName</b>	NO	string	The value is the name of the system producing this set of OneRoster files.
<b>source.systemCode</b>	NO	string	The value is the identification code of the system producing this set of OneRoster files.

### Need additional help?

Email Digital Integration Support at [IntegrationSupport@mheducation.com](mailto:IntegrationSupport@mheducation.com) or call 1-855-315-6417. For additional help, access the K12 Technical Support website at <https://mhed.us/dts>.