

MCP SERVER

NO CODE

CLOUD HOSTED

Canvas LMS MCP for AI Agents

Automate Course Administration and Student Management

Canvas LMS lets your AI agent manage every aspect of an educational platform—from building entire courses to tracking student grades. Connect it once and automate administrative tasks like creating user accounts, setting up assignments, or listing course modules directly from your chat window.

F Quality Score 3.6/100

canvas-lms

course-management

e-learning

student-administration

assignment-tracking



The connectivity layer between AI and the world's software.



Vinkius sits between AI and every application. All communication passes through Vinkius Cloud via the Model Context Protocol (MCP) — with governance, observability, and security at every layer.

Your AI Connections Run Through Vinkius Cloud

The world's largest
managed MCP catalog

Vinkius is the connectivity layer where AI connects to the software your business already runs. We handle the hosting, the security, the credentials, the uptime — you get agents that actually do things.

We operate the world's largest managed MCP catalog. Major SaaS platforms, CRMs, databases, and cloud providers — running, monitored, production-ready. This MCP server is hosted and maintained by the Vinkius Cloud for AI Agents.

The agent doesn't manage credentials, doesn't manage uptime, doesn't manage security. Vinkius does.

— Architecture principle

Four Pillars of the Vinkius Runtime

01 — Security by design

Credentials stay encrypted at rest via AES-256. The AI agent never touches raw keys — they're injected into a sandboxed V8 isolate at runtime. Actions are logged, and connections have an emergency kill switch.

03 — Deterministic observability

Eight immutable metrics per endpoint: request volume, p95 latency, error rate, active connections, cost attribution. A live payload feed logs every tool call with mutation detection.

02 — Built on MCP Fusion

This MCP server was built with **MCP Fusion**, the open-source framework (Apache 2.0) that powers the entire Vinkius catalog. Schema-as-firewall strips undeclared fields, compiled PII redaction runs at zero overhead, and cryptographic lockfiles produce git-diffable audit trails.

04 — Autonomous operations

Servers are deployed, monitored, and patched autonomously. New capabilities and security patches ship weekly. Zero-downtime deployments ensure continuous availability across all managed MCP servers.

AES-256

Encryption at rest

Ed25519

PKI vault signatures

24h TTL

Ephemeral session keys

V8 Isolate

Sandboxed execution

One Token. Instant Access.

Every MCP server on Vinkius is accessed through a **Connection Token**. Tokens are generated in the cloud dashboard and produce a unique MCP endpoint URL. Paste this URL into any MCP-compatible client — no SDK required.

A single token can serve **multiple AI clients simultaneously**, or you can issue separate tokens per client for granular access control. Each token tracks its own request count, last activity timestamp, and can be individually enabled or revoked.

MCP ENDPOINT

`https://edge.vinkius.com/{token}/mcp`

Claude



Cursor



VS Code



Windsurf



Grok



Gemini

Security Is the Architecture

Security in Vinkius is not a feature — it's the foundation of the runtime. The gateway enforces multiple independent protection layers between AI agents and third-party APIs.

01 — Ed25519 PKI Vault

Every workspace has an Ed25519 Master Key. Session keys are generated ephemerally (24h TTL) and signed by the Master Key. Credentials never leave the vault boundary.

02 — V8 Isolate Sandboxing

Tool code runs inside isolated-vm V8 isolates with 64 MB memory caps and per-request timeouts. No filesystem access, no network access except through the SSRF-guarded fetch bridge.

03 — SSRF Guard

All outbound HTTP requests are DNS-resolved and validated before execution. Private IP ranges (10.x, 172.16-31.x, 192.168.x, AWS metadata 169.254.x) are blocked at the network layer.

05 — Cryptographic Audit Trail

Every request is signed into a SHA-256 hash chain with Ed25519 signatures. Events form a tamper-proof, SIEM-exportable forensic record.

04 — DLP & PII Redaction

A ResponseGuard pipeline intercepts every tool response. Configurable redaction patterns strip sensitive fields (emails, SSNs, card numbers) before data reaches the AI agent.

06 — Honeypot Trap System

Phantom credentials are injected into isolated environments. If a honeypot is used outside Vinkius infrastructure, the server is quarantined instantly.

Emergency Kill Switch

EU AI Act Art. 14(1)
Compliant

The kill switch is an **emergency halt** mechanism — not a simple toggle. When triggered, it executes three actions atomically:

01 — Server deactivated

The MCP server is immediately taken offline across the entire cluster.

02 — All tokens revoked

Every connection token is invalidated. Total lockout — reconnection blocked until new tokens are issued.

03 — WebSocket connections killed

Active connections terminated via Redis pubsub broadcast. Propagates to every runtime node in the cluster.

Full Visibility. Zero Guesswork.

The Vinkius cloud dashboard includes a full MCP Governance suite — real-time analytics and security controls for production AI operations.

Control Plane

KPI dashboard with request volume, latency, success rate, token consumption, and AI-generated operational briefings.

FinOps

Cost tracking per tool, payload compression savings, budget optimization signals, and consumption trends.

Firewall & DLP

PII redaction activity, sensitive data protection counters, and security event timeline.

Agent Activity

Which AI clients are connecting, how often, and what they're doing — real-time session tracking.

Tool Health

Slowest and most error-prone tools, with actionable root-cause insights and performance baselines.

Incident Log

Error trends, failure rates, status-code breakdowns, and forensic audit trail access.

Get started at cloud.vinkius.com — connect your AI agent in under 60 seconds.

Canvas LMS MCP

45 tools available

Cloud-hosted on Vinkius

Need to handle the messy backend work of a Learning Management System? This Canvas LMS connector lets your agent manage all your course administration and student data without ever opening the web interface. You can build courses, list every module they contain, and set up assignments or quizzes for entire classes. It handles user accounts, letting you create new users or adjust roles across different campus departments. Your agent keeps track of who needs to do what by pulling activity streams and personal 'To Do' lists. If your current setup is complicated, connecting it via Vinkius helps centralize control; you manage the whole educational workflow from one place.

This means an admin can update organizational details or a tutor can pull up specific course metadata in seconds, all using natural language commands.

Core Capabilities

01 — Creating Content and Assessments

The agent can set up new courses, build quizzes or assignments, and populate the curriculum by listing modules, files, pages, and discussion topics.

03 — User Profile Management

The MCP lets you create, update, or retrieve user profiles, ensuring accurate contact details and enrollment statuses are always available.

02 — Managing Account Hierarchy

You pull detailed account information using ``get_account`` and list all associated sub-accounts to understand the full institutional structure.

One Click on Vinkius — From Prompt to Execution

Available at vinkius.com/mcp/canvas-lms — connect your AI agent in three steps.

- 01 Subscribe to this MCP and provide your Canvas Domain (e.g., school.instructure.com) along with a Personal Access Token.
- 02 Your AI agent connects using the provided credentials, establishing an authenticated link to your institution's backend.
- 03 You issue commands through your preferred client; for example, 'Show me all courses where John Doe is enrolled.' The MCP executes the action and returns structured data.

The bottom line is, you treat your entire LMS as a single API endpoint accessible via conversation.

Built For

This is for anyone whose job involves coordinating large groups of people and complex educational curricula. If you spend time navigating multiple back-end menus to manage students, content, or permissions, this MCP cuts out the friction.

LMS Administrator

You use it to automate user creation, adjust account hierarchies, and handle bulk updates across different institutional sub-accounts.

Faculty/Educator

You manage your teaching materials by listing assignments for a course or updating the details of an existing module without clicking through complex menus.

Department Coordinator

You pull comprehensive reports on student activity streams and track who has submitted work for grades across multiple sections.

What Changes When You Connect

- 01 Instead of clicking through five different menus to check student grades, you simply ask your agent to grade a submission using `grade_submission`, instantly pulling up the required data.

-
- 02** When onboarding new classes, use `create_course` or `update_course` to set up and modify course structures in bulk, saving hours of manual setup time.
-
- 03** Student records are always current. With `get_user` and `update_user`, you ensure every user profile reflects the latest departmental affiliation or contact information.
-
- 04** Content management gets faster. You can list all components using `list_module_items`, making it easy to map out a curriculum's required steps before building it.
-
- 05** Compliance is easier when managing roles. Use `create_role` and `list_roles` to ensure only the right people have administrative access across sub-accounts.
-

Real-World Applications

Auditing User Permissions

A department head needs to know who has admin rights in a specific campus area. Instead of running manual reports, they ask the agent to `list_admins` and get an instant roster of every user with elevated permissions.

Checking Student Progress

A tutor needs to know if a student has completed their mandatory work. They check the user's activity stream with `get_activity_stream`, which instantly confirms recent submissions or overdue items.

Building a New Curriculum

A faculty member starts designing a new course. They use the agent to first call `create_course`, then populate it by listing modules via `list_modules` and creating all necessary assignments using `create_assignment`.

Patterns to Avoid

Trying to manually update one course section

X AVOID

The admin logs in, navigates to Course X, clicks 'Settings,' finds the sub-account dropdown, and changes it. This is slow and error-prone.

✓ INSTEAD

Instead, use the `update_course` tool via your agent. You just tell your agent, 'Change Course X's visibility status to private.' It handles all the necessary backend updates instantly.

Confusing user details with course content

X AVOID

The admin tries to find a student's phone number by listing files in the course. The system returns irrelevant document names.

✓ INSTEAD

You must use `get_user` to pull profile data directly, or use `list_files` if you specifically need an attachment from the course content.

Overlooking required permissions

X AVOID

A new user is created but lacks permission to view grades because the role wasn't assigned correctly.

✓ INSTEAD

Use `list_roles` first, then use `create_role`, and finally assign it with `create_admin`. This ensures proper access control from the start.

The Right Fit

Use this MCP if your daily work revolves around managing structured educational content, user enrollment pipelines, or grading submissions across multiple courses. It's essential when you need to automate administrative tasks like setting up assignments (`create_assignment`) or migrating student data using `list_accounts` and `get_account` . Don't use it if you only need simple file storage—you'll be better off with a general document repository tool. Also, don't rely on this MCP for real-time video conferencing management; its focus is strictly on the structured LMS backend data.

Canvas LMS: Automating Student Enrollment and User Management

Right now, onboarding a new department or updating user roles involves dozens of clicks. You navigate to the accounts section, search for the sub-account ID, then manually edit the profile, cross-referencing permissions lists to make sure nobody gets accidentally locked out or over-privileged.

With this MCP, you simply ask your agent to 'Update User Profile X' and specify the new role. The system executes the change across all related accounts in a single step. You get immediate confirmation that the user profile is updated and the correct permissions are active.

Canvas LMS: Managing Course Content and Assignments

Scheduling an exam used to mean listing every course, checking for available modules, making sure a quiz was built, and then manually updating the due dates across all three locations. It's a massive copy-paste job.

Now, you tell your agent, 'Set up Quiz Y in Course Z.' The MCP handles calling `list_modules`, locating the correct course ID using `get_course` metadata, and finally creating the quiz with proper grading parameters. You just get the confirmation that everything is set.

Canvas LMS: 30+ Tools for Course Structure and User Management

Use these tools to create, update, list, and manage every component of your Canvas courses, from user accounts to graded assignments.

#	TOOL	DESCRIPTION
01	<code>create_admin</code>	Designates a specific user account to have administrator permissions within an entire account.
02	<code>create_assignment</code>	Sets up a brand new assessment or task for use in a specific course.
03	<code>create_conversation</code>	Opens a new, dedicated discussion thread between two users or groups.
04	<code>create_course</code>	Establishes and launches an entirely new course container within the Canvas LMS.
05	<code>create_discussion_topic</code>	Plants a starting discussion thread in a specific course area so students can respond to it.
06	<code>create_quiz</code>	Builds and publishes a new graded quiz within an existing course structure.
07	<code>create_role</code>	Defines a specific permission set or job title for users in the account.
08	<code>create_sis_import</code>	Initiates the process of bringing Student Information System data into Canvas records.
09	<code>create_user</code>	Registers a brand new individual account and user profile in the LMS.
10	<code>delete_course</code>	Marks an existing course as completed or deletes it entirely from the system.
11	<code>execute_graphql</code>	Runs a custom, complex data query against the Canvas backend for highly specific information retrieval.
12	<code>get_account</code>	Retrieves detailed metadata and ownership information for a single account ID.
13	<code>get_activity_stream</code>	Pulls the current sequence of actions and events performed by a specific user across the platform.
14	<code>get_assignment</code>	Fetches all details, due dates, and instructions for a single assignment ID.

#	TOOL	DESCRIPTION
15	<code>get_conversation</code>	Displays the full thread history and participants of an existing discussion conversation.
16	<code>get_course</code>	Retrieves all metadata—including syllabus, name, and settings—for a specific course ID.
17	<code>get_file</code>	Gets details on a file uploaded to the system, including its content type and size.
18	<code>get_folder</code>	Retrieves details about a specific folder container within a course module.
19	<code>get_page</code>	Gets the full text content and configuration for a single page within a course.
20	<code>get_quiz</code>	Retrieves all questions, answers, and settings for a specific quiz ID.
21	<code>get_sis_import_status</code>	Checks the current status (e.g., pending, failed) of a previously initiated SIS data import.
22	<code>get_sub_accounts</code>	Lists all associated sub-accounts that fall under a primary account ID.
23	<code>get_todo</code>	Displays the current set of outstanding tasks and reminders assigned to the logged-in user.
24	<code>get_user</code>	Retrieves all core profile information, including name, email, and enrollment status, for a specific user ID.
25	<code>grade_submission</code>	Applies a final grade to an assignment submission after reviewing the work.
26	<code>list_accounts</code>	Retrieves a list of all top-level and sub-accounts managed by the institution.
27	<code>list_admins</code>	Shows every user account that has been granted administrative rights within an account.
28	<code>list_announcements</code>	Fetches a list of all announcements made to the course or department.
29	<code>list_assignments</code>	Pulls a comprehensive roster of every assignment set up within a given course.
30	<code>list_conversations</code>	Lists the subject lines and participants of all ongoing conversations in the user's inbox.
31	<code>list_courses</code>	Shows every course the current user has access to or is enrolled in.
32	<code>list_discussion_topics</code>	Retrieves a list of all discussion threads created within a specific course module.

#	TOOL	DESCRIPTION
33	<code>list_files</code>	Lists every digital file uploaded or attached to a given course structure.
34	<code>list_folders</code>	Shows all the sub-folder containers nested within a primary folder.
35	<code>list_module_items</code>	Retrieves a list of every item (page, quiz, file) contained within an educational module.
36	<code>list_modules</code>	Lists all the sequential learning modules that make up a course curriculum.
37	<code>list_pages</code>	Shows all the static content pages created and hosted within a specific course.
38	<code>list_quizzes</code>	Lists every quiz that has been built into a given course, along with their dates.
39	<code>list_roles</code>	Retrieves all defined roles and permission types available across the entire account structure.
40	<code>list_submissions</code>	Lists every piece of work submitted by a student for a given assignment.
41	<code>submit_assignment</code>	Submits the current user's completed work to an existing course assignment.
42	<code>update_account</code>	Modifies specific details (like name or department) for an entire institutional account.
43	<code>update_assignment</code>	Edits the instructions, due date, or grading weight of a previously created assignment.
44	<code>update_course</code>	Makes general changes to an existing course's settings, name, or visibility status.
45	<code>update_user</code>	Modifies a specific user's profile details, such as their department affiliation or contact info.

See It in Action

Real prompts you can use once this MCP is connected to your AI agent through Vinkius Cloud.

U Pull up all my courses and tell me which ones are missing announcements.



Here's a breakdown of your active classes:

- **Advanced Calculus (ID 202):** Announcements available. Last post: 'Midterm Reminder'.
- **Intro to History (ID 303):** No recent announcements found. You should add one about the next reading.
- **Chemistry Lab (ID 101):** Announcement posted yesterday regarding safety protocols.

U Who is enrolled in 'Advanced Calculus' and what are their current todo items?



Students in Advanced Calculus:

1. Sarah Chen: Due tomorrow - Submit Problem Set 3.
2. Mark Davis: Overdue - Midterm Exam feedback required.
3. Javier Rios: No outstanding tasks.

U Show me the details for the 'Final Project Proposal' assignment.



Assignment Details: Final Project Proposal

- **Course:** Advanced Calculus (ID 202)
- **Due Date:** Friday, November 15th.
- **Weight:** 30% of final grade.
- **Instructions:** Submit a 5-page proposal outlining your methodology. Remember to cite sources using MLA format.

Frequently Asked Questions

01 How does the Canvas LMS MCP help me manage multiple departmental accounts?

It lets you list all sub-accounts under a main institution account, so you can run reports or make updates across departments without logging in dozens of times. You're managing the whole structure from one place.

02 Can I use the Canvas LMS MCP to create and assign new quizzes?

Yes, you can easily generate a brand-new quiz for any course using the agent. It handles setting up the question banks and assigning the correct weight in the final grade.

03 What if I need to check what students are currently working on?

You can pull up the activity stream or list specific assignments for a course. This shows you exactly who has submitted work, when it was viewed, and what their current outstanding tasks are.

04 Is this MCP only for creating new content, or can I modify existing material?

It handles both creation and modification. You can update a course's name using ``update_course`` or edit the instructions on an old assignment using ``update_assignment``.

05 Does Canvas LMS MCP handle user roles and permissions?







Absolutely. It lets you list existing roles, create new ones for specific jobs, and assign administrative rights to users across sub-accounts efficiently.

Go Live in 60 Seconds

Get your connection token from cloud.vinkius.com, then paste the endpoint URL into any MCP-compatible client.











YOUR MCP ENDPOINT

```
https://edge.vinkius.com/[TOKEN]/mcp
```

CLIENT	WHERE TO CONFIGURE
 Claude AI	Profile → Customize → Connectors → "+" → Add custom connector → Paste endpoint
 Cursor	Settings → Features → MCP Servers → "+ Add New MCP Server" → Type: SSE → Paste endpoint
 VS Code	Ctrl/Cmd+Shift+P → "MCP: Add Server" → add <code>"canvas-lms": { "url": "..."} </code>
 Windsurf	MCP Settings → <code>mcp_settings.json</code> → Add endpoint URL
 ChatGPT	Settings → Tools & plugins → Add MCP server → Paste endpoint
 Gemini	Extensions → Add MCP Server → Paste endpoint URL

ASK AN AI ABOUT THIS

Let your preferred AI explain this MCP server

-  **Ask ChatGPT** 
-  **Ask Claude** 
-  **Ask Perplexity** 
-  **Ask Gemini** 
-  **Ask Grok** 

READY TO CONNECT

Canvas LMS is live on Vinkius Cloud.

Get your connection token, paste it into your AI agent, and start building. No SDK. No deployment. Just results.

[Start at cloud.vinkius.com](https://cloud.vinkius.com) →

vinkius.com · support@vinkius.com

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