Alright, let bạn, I'm gonna give you the **FULL DETAILED VERSION**—like a real LMS knowledge base used for RAG systems.
This is **expanded x3**, includes deep explanation, examples, policies, decision rules, and realistic content that a student-support chatbot would retrieve.

It will look like the type of "internal handbook + help center + learning guide" your e-learning system uses.

🎓 STUDENT LEARNING-SUPPORT KNOWLEDGE BASE (ULTRA DETAILED)

For RAG Chatbot System – Student Role

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1. COURSE INFORMATION

1.1 Course Description Template (Generic for All Courses)

Each course in the e-learning system contains a detailed description including:

- **Course Title:** Official name in curriculum.
- **Course Code:** Ex: ECOM201, CS102.
- **Credits:** Usually 2–4 credits.
- **Prerequisites:** Courses required before enrolling.
- **Short Description:**
  A summary of the topics, scope, and learning objectives.

Example:

"This course provides foundational knowledge of database systems, focusing on SQL, relational database design, indexing, normalization, and transaction management. Students will complete weekly labs, quizzes, and a final project involving database creation and optimization."

1.2 Learning Outcomes (General Template)

By the end of each course, students are expected to be able to:

1. Understand essential theoretical concepts.
2. Apply learned knowledge to solve practical problems.
3. Use relevant tools/software (SQL Server, Java, Python, etc.).
4. Analyze real-world scenarios and propose solutions.
5. Communicate ideas clearly through written and presentation tasks.

1.3 Course Structure / Weekly Breakdown

A typical course lasts **12–15 weeks**, with each week containing:

- **Main topic of the week**
- **Lecture slides (PDF, PPT)**
- **Recorded lectures (MP4)**
- **Reading materials** (textbooks, online research papers)
- **Weekly quiz**
- **Weekly assignment/lab**
- **Forum discussion questions**

Example Week Breakdown:

Week 4 – Object-Oriented Programming in Java

- Topics: Classes, Objects, Constructors, Encapsulation
- Lecture Video: 1 hour 35 minutes
- Reading: Chapter 4 + Supplementary article
- Quiz: 10 multiple-choice questions
- Lab: Implement a student management class
- Assignment: Build a small Java console application

1.4 Grading Policy (Detailed)

Grading may vary per course but usually follows:

Component	Weight	Description

Component	Weight	Description
Assignments	20–40%	Weekly homework, coding tasks, reports
Quizzes	10–20%	Short assessments after each module
Midterm Exam	20–30%	Covers first half of course
Final Exam	30–40%	Comprehensive exam
Participation	5–10%	Forum activity, group work, attendance

Notes:

- Minimum passing grade: **50/100**
- Some courses require passing the final exam to pass the course overall

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2. ASSIGNMENTS & SUBMISSION RULES

2.1 Assignment Instructions (General)

Every assignment will include:

- **Task description**
- **Expected output**
- **Required format**
- **Rubric/marking scheme**
- **Deadline (date + time)**
- **How to submit (upload, link, GitHub)**

Accepted File Formats:

- PDF
- DOCX
- PNG/JPEG (screenshots)
- ZIP (for code projects)
- Jupyter Notebook (.ipynb)
- Java/Python source code files

File Naming Rule:

Format:

`StudentID_FullName_AssignmentX`

Example:

`2053042_NguyenVanA_Assignment3.pdf`

2.2 Late Submission Policy

- Late 1 day → −10%
- Late 2 days → −20%
- Late 3 days → −30%
- Late >3 days → Not accepted unless emergency approved
- Technical issues must be reported **before deadline**

Acceptable Reasons for Extension:

- Medical emergencies
- Family emergencies
- System outages officially acknowledged

2.3 Plagiarism & Academic Integrity (Very Detailed)

Plagiarism includes:

- Copying text from the internet without citation
- Using another student's code
- Using AI-generated text without permission
- Using GitHub code without declaring source
- Submitting identical or slightly modified content

Penalties:

- 0 marks for assignment
- Report to academic department
- Repeated offense → fail course
- Severe cases → academic probation

Similarity Threshold:

- Turnitin similarity > 20% = automatic review
- Code similarity checked via Moss

2.4 Rubrics (Generic Example)

Rubrics detail how marks are allocated.

Example Rubric for Coding Assignment (100 pts)

Category	Points	Description
Correctness	40	Code runs + correct output
Style & Structure	20	Clean code, naming, indentation
Documentation	10	Comments, README
Testing	10	Test cases included
Creativity	10	Extra features
Submission Format	10	File naming, proper packaging

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3. EXAMS & QUIZZES

3.1 Exam Types

- **Online exam with proctoring**
- **On-site written exam**
- **Open-book exam**
- **Practical/lab exam**
- **Oral exam** (for certain subjects)

3.2 Exam Rules (Detailed)

- Students must join exam room **10–15 minutes early**
- Display student ID before starting
- Electronic devices (phones/tablets) are prohibited
- No talking, no leaving seat
- During online exams:
    - Webcam ON
    - Microphone ON
    - Screen-sharing required
    - Only 1 tab allowed

Violations:

- Suspicious behavior → flagged
- Switching windows → auto-warning
- Using chat tools → immediate investigation

3.3 Quiz Rules

- Time-limited (15–40 minutes)
- 1–2 attempts only
- Randomized questions
- Cannot pause once started
- Immediate results

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4. LEARNING SUPPORT & STUDY GUIDES

4.1 General Study Tips

- Attend every lecture and take notes
- Review weekly slides
- Do practice quizzes before the assignment
- Break down long tasks into smaller chunks
- Engage in discussion forums
- Use spaced repetition (Anki)
- Practice active recall
- Study 1–2 hours daily instead of cramming

4.2 How the Chatbot Helps Students (Capabilities)

Your RAG chatbot can help by:

Academic Assistance

- Explaining difficult concepts

- Giving examples
- Summarizing lecture notes
- Providing definitions
- Suggesting study plans
- Answering “where is…?” questions

Assignment Support

- Clarifying assignment instructions
- Recommending reading materials
- Suggesting code structure or algorithm approach
- Giving test case examples

Navigation Assistance

- Locate PDFs, slides, lecture videos
- Show deadlines
- Show upcoming assessments

Administrative Assistance

- Explain grading rules
- Explain exam policies
- Show attendance policy

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5. TECHNICAL SUPPORT & TROUBLESHOOTING

5.1 Common Technical Issues & Solutions

1. Cannot log in

- Check username/password
- Reset password
- Clear browser cache
- Try incognito mode
- Contact support if still failing

2. Video not loading

- Switch browser to Chrome/Firefox
- Check internet speed (minimum 5Mbps)
- Download video if available
- Disable ad-blockers

3. Assignment Upload Error

- File too large → compress
- Wrong format → convert to PDF
- Internet unstable → reconnect and reupload

4. Quiz not opening

- Check quiz availability time
- Deadline might be passed
- Browser compatibility issues

5.2 System Requirements

Minimum PC Requirements

- Processor: Dual-core
- RAM: 4GB
- Storage: 5GB free
- OS: Windows 10 / macOS / Linux

Recommended Requirements

- Processor: i5 or higher
- RAM: 8GB
- Stable internet 10Mbps

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6. STUDENT PROGRESS TRACKING

6.1 Progress Indicators

- Lecture completion (%)
- Quiz scores

- Assignment submission status
- Exam scores
- Participation level (forum activity)

Example:

```
Lectures Completed: 72%
Assignments Submitted: 5/6
Average Quiz Score: 81%
Final Exam: Pending
```

6.2 Flags for At-Risk Students

System automatically identifies students who:

- Miss 2 or more assignments
- Receive < 50% on multiple quizzes
- Do not log in for 7+ days
- Fail midterm exam
- Low participation score

Chatbot can remind or encourage them.

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7. COMMUNICATION & SUPPORT

7.1 Instructor Contact Protocol

- Use university email
- Expect response in 24–48 hours
- Use professional subject line
- State course + student ID + question clearly

7.2 Discussion Forums

Forum usage guidelines:

- Be respectful

- Do not spam
- Use threads properly
- Credit sources when sharing external content

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8. AVAILABLE RESOURCES

Types of Learning Materials:

- Textbooks
- Lecture slides
- Recorded videos
- Additional readings
- Past exam papers
- Practice quizzes
- Lab exercises
- Source code examples
- Templates (LaTeX, project report, coding style guide)

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9. Example RAG Content Chunks

These are small chunks your RAG system will index.

Chunk Example — Deadline Policy

"All assignments must be submitted before 23:59 on the due date. Late submissions incur a penalty of 10% per day up to 3 days."

Chunk Example — Week 5 Topic

"Week 5 covers SQL Joins: INNER JOIN, LEFT JOIN, RIGHT JOIN, FULL JOIN. Students must complete Lab 05 and Quiz 05."

Chunk Example — Plagiarism Rule

"Similarity above 20% (Turnitin) will result in automatic review and may be penalized according to university academic integrity policy."
