```
@startuml
!theme plain
hide circle
skinparam linetype ortho
skinparam shadowing false
skinparam roundCorner 10


entity "User" as user {
 * user_id (PK)
 --
 username
 email
 password_hash
 role
}

entity "Category" as category {
 * category_id (PK)
 --
 name
 description
}


entity "Course" as course {
 * course_id (PK)
 --
 title
 description
 price
 instructor_id (FK)
}

entity "Lesson" as lesson {
 * lesson_id (PK)
 --
 title
 description
 course_id (FK)
}

entity "Enrollment" as enrollment {
 * enrollment_id (PK)
 --
 user_id (FK)
 course_id (FK)
 enrollment_date
```

```
    progress
    completed_date
}

entity "Review" as review {
  * user_id (PK, FK)
  * course_id (PK, FK)
  --
  rating
  comment
}

entity "CourseCategory" as course_category {
  * course_id (PK, FK)
  * category_id (PK, FK)
}


entity "Certificate" as certificate {
  * certificate_id (PK)
  --
  issue_date
  unique_url
  enrollment_id (FK)
}


user ||--o{ course
course ||--|{ lesson
user ||--o{ enrollment
course ||--o{ enrollment
enrollment ||--o| certificate
user ||--o{ review
course ||--o{ review
course ||--o{ course_category
category ||--o{ course_category
@enduml
```

User

○ user_id (PK)

username
email
password_hash
role

Course

○ course_id (PK)

title
description
price
instructor_id (FK)

Category

○ category_id (PK)

name
description

Review

○ user_id (PK, FK)
○ course_id (PK, FK)

rating
comment

Lesson

○ lesson_id (PK)

title
description
course_id (FK)

Enrollment

○ enrollment_id (PK)

user_id (FK)
course_id (FK)
enrollment_date
progress
completed_date

CourseCategory

○ course_id (PK, FK)
○ category_id (PK, FK)

Certificate

○ certificate_id (PK)

issue_date
unique_url
enrollment_id (FK)