Lesson plan is a plan that describes procedures and organization of learning, in order to achieve a basic competency standards set out in content, and described in syllabus. Lesson plan of mathematics is one object of many learning materials applied in schools. System development lesson plan in mathematics is necessary to maximally support the needs of teachers and realization of a dynamic learning environment. The purpose of this research is to develop a prototype system of online mathematics lesson plan based on computer assisted instructional. The benefit of having such lesson plan is that it can ease teacher performance as a tool in manufacturing lesson plan effectively. Research method applied to develop system prototype was structural approach. The developed system offered several features which are teacher competency tests, lesson plans, tutorials, and a discussion forum for users. Prototype of the system has been tested offline, where all designed functions on navigation menu could run well. The developed system presents more optimal and effective lesson plans because it supports the use of teacher’s tacit and explicit knowledge, variations and flexibilities in creating lesson plans, and adjustable attributes. Furthermore, the system is also able to supply information on teaching feasibility and provides a variable lesson plan reports.

Key words: online lesson plan, mathematic, Computer Assisted Instructional, structural approach