

**THE EFFECT OF USING MACROMEDIA FLASH IN PHYSICS LEARNING WITH
DIRECT INSTRUCTION MODEL TO STUDENTS' LEARNING OUTCOMES
OF HEAT AND TEMPERATURE SUBJECT IN GRADE X
MAN 2 MODEL MEDAN ACADEMIC YEAR 2015/2016**

By:

Dinda Marina Sinaga

IDN 4121121006

Bilingual Physics Education Study Program



THESIS

Submitted to Partial Fulfillment of the Requirements for the Degree of

Sarjana Pendidikan

**FACULTY OF MATHEMATICS AND NATURAL SCIENCES
STATE UNIVERSITY OF MEDAN**

MEDAN

2016