

TITLE:	Immunological and Epidemiological HIV/AIDS Modeling
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MATHEMATICAL FIELD:	Differential Equations
APPLICATION FIELD:	Public Health, immunology, epidemiology
TARGET AUDIENCE:	Students in second-term calculus or in differential equations.
ABSTRACT:	This Module applies ordinary differential equations to both immunological and epidemiological aspects of HIV/AIDS modeling. For each aspect, we introduce a basic system that describes the growth of HIV/AIDS in the absence of countermeasures. We then explain how the basic model can be modified to predict the effectiveness of intervention programs to counter the spread of HIV/AIDS.
PREREQUISITES:	A primer (Section 3) on equilibrium analysis of systems of ordinary differential equations is included for those who have not had a course in ordinary differential equations.

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