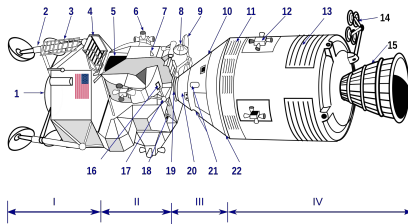


Welcome to
ASEN 3502
Computational Methods

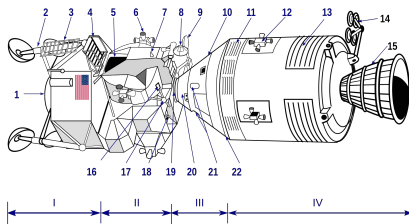
Apollo 13



I-II: lunar module (descent, ascent stages); III: command module; IV: service module.

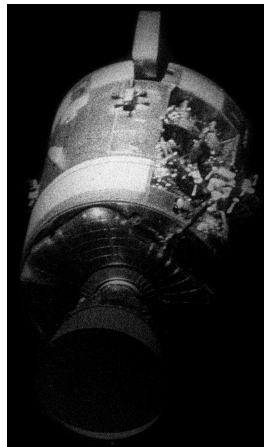
Popadius, Wikimedia Commons, CC0.

Apollo 13



I-II: lunar module (descent, ascent stages); III: command module; IV: service module.

Popadius, Wikimedia Commons, CC0.



The service module after separation, with one panel blown off. NASA (scan by Kipp Teague), public domain.

Direct return

NASA-S-66-4979 MAY 25

DIRECT RETURN MODE FOR TL COAST

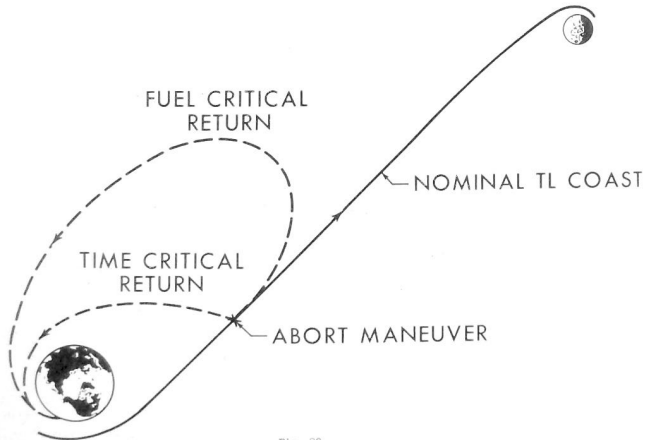
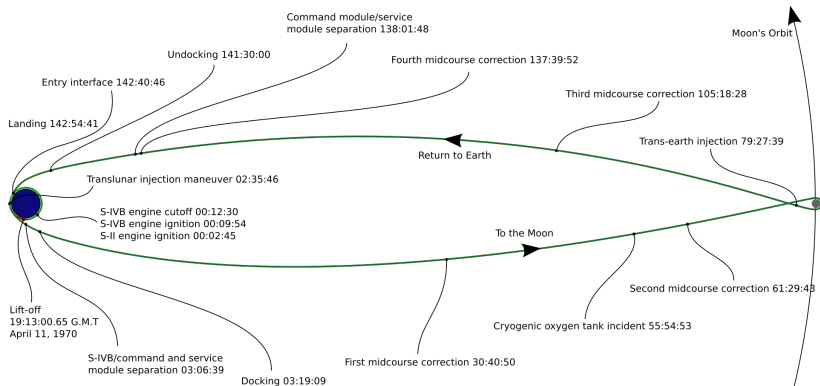


Fig. 20

R. L. Berry, *Apollo Lunar Landing Mission Symposium*, NASA MSC, June 1966. Public domain, via Wikimedia

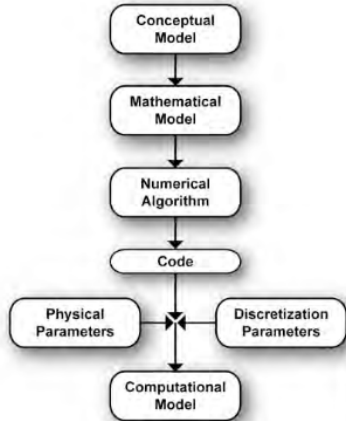
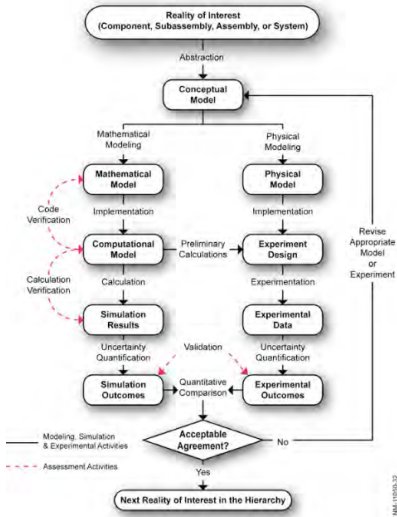
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What Apollo 13 actually flew



AndrewBuck, Wikimedia Commons, CC BY-SA 4.0. Source for figures: Apollo 13 Mission Report, p. 3-2.

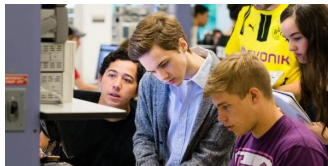
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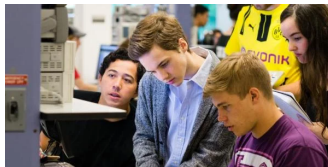
Our Assumptions

- The material is challenging, and can take multiple engagements to understand fully



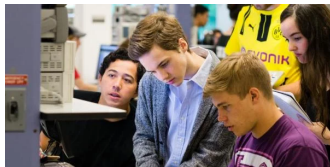
Our Assumptions

- ▶ The material is challenging, and can take multiple engagements to understand fully
- ▶ A student who comes to my office or asks a question wants to learn



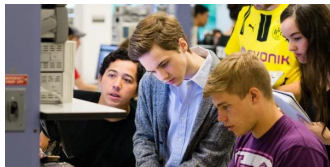
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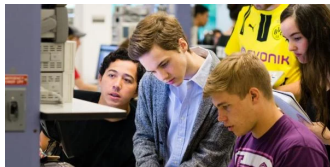
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- ▶ We must work together to help you find the way to understand



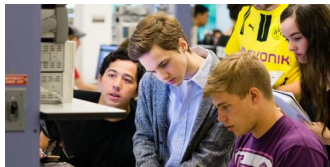
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- ▶ Taking notes in class and doing the homework yourselves are critical steps to understanding
- ▶ I am trying to bring you to the point of understanding, not just give you the answer
- ▶ We will have fun this semester

