

17.950 Understanding Modern Military Operations (Thurs. 1-3pm; E38-615)

A proper understanding of modern military operations requires a prior understanding of both the material side of war, including especially weapon, sensor, communication, and information processing technologies, and the human or organizational side of war, including especially military doctrine, which is an institutionalized vision within military organizations that predicts how the material tools of war will be wielded on future battlefields. Military doctrine makes assumptions about the nature of future battlefields, and determines what the division of labor on those battlefields will be between different military tools. Doctrine also therefore determines the organizational hierarchy among the various branches of the military which wield those tools. Thus, one way to think of the relationship between military technology and doctrine is to think of doctrine as a filter that a military organization will use to assess the effect that future technologies or new battlefields are likely to have on its existing organizational hierarchy.

This seminar will break apart current and possible future sea, air, space, and land battlefields into their constituent parts and look at the interaction in each of those warfare areas between existing military doctrine and current and projected technological trends in weapons, sensors, communications, and information processing. It will specifically seek to explore how technological development, innovation and/or stagnation are influenced in each warfare area by military doctrine.