Lieutenant Colonel Michael Lengel was born in Bradford, Pennsylvania. He attended Penn State Behrend, in Erie, Pennsylvania; where he received a Bachelor's of Science degree in Business Management with a minor in Marketing. He was commissioned a Second Lieutenant in the United States Army Field Artillery through ROTC in July of 2005.

LTC Lengel's first assignment was to 2nd Battalion, 18th Field Artillery, 75th Fires Brigade (M270A1 MLRS) at Fort Sill, where he served as a Platoon Leader, Battery Executive Officer/Fire Direction Officer, and Battalion S1. While serving with 2-18 FA, LTC Lengel deployed twice in support of Operation Enduring Freedom to Kabul, Afghanistan in a motorized infantry platoon and throughout the Horn of Africa conducting Mil to Mil Training and Security Force Assistance. Following completion of the Field Artillery Captain's Career Course, LTC Lengel was assigned to 2nd Brigade Combat Team, 4th Infantry Division (ABCT) at Fort Carson, Colorado, where he served as the Battalion Fire Support Officer for the 2nd Battalion, 8th Infantry and Commander for Bravo Battery, 3rd Battalion, 16th Field Artillery Regiment (M109A6 Paladin). While serving with 2nd Brigade, LTC Lengel deployed to Kandahar City, Afghanistan as the Task Force FSO and Targeting Officer, then subsequently took command of Bravo Battery and oversaw operations throughout RC West from Bala Murgab to Delaram, Afghanistan in support of Operation Enduring Freedom. After relinquishing command of Bravo Battery, LTC Lengel served as an Assistant Professor of Military Science at Lehigh University, Bethlehem, PA. Following completion of the Command and General Staff College at Fort Leavenworth, KS, LTC Lengel was assigned to 1st Stryker Brigade Combat Team, 25th Infantry Division at Fort Wainwright, Alaska. He deployed in support of USFOR-A as a J-35 Planner at Bagram, Afghanistan. Upon his return to 1/25 SBCT, he served as the Brigade Fire Support Officer, Operations Officer, and Executive Officer for 2nd Battalion, 8th Field Artillery Regiment (M777A2). In July of 2019, LTC Lengel reported for duty at the 11th Marine Regiment, Camp Pendleton, CA as the 1st Marine Division Assistant Fire Support Coordinator, where he served for two years focused on Integrating Navy and Marine Corps Fires. In August of 2021, LTC Lengel reported to Missouri State University as served as the Professor of Military Science and Military Science Department Head.

LTC Lengel earned a Masters of Business Administration, with a concentration in Project Management, from Lehigh University in Bethlehem, PA.

LTC Lengel's awards and decorations include the Bronze Star, the Meritorious Service Medal with silver oak leaf cluster, the Joint Service Commendation Medal, the Army Commendation Medal with one oak leaf cluster, the Army Achievement Medal with one oak leaf cluster, and the Basic Army Instructor Badge.