From website:

<https://www.usgs.gov/faqs/what-are-best-landsat-spectral-bands-use-my-research?qt-news_science_products=0#qt-news_science_products>

Last rows added manually based on googling.

| **Band** | **Wavelength** | **Useful for mapping** |
| --- | --- | --- |
| Band 2 - blue | 0.45-0.51 | Bathymetric mapping, distinguishing soil from vegetation and deciduous from coniferous vegetation |
| Band 3 - green | 0.53-0.59 | Emphasizes peak vegetation, which is useful for assessing plant vigor |
| Band 4 - red | 0.64-0.67 | Discriminates vegetation slopes |
| Band 5 - Near Infrared (NIR) | 0.85-0.88 | Emphasizes biomass content and shorelines |
| Band 6 - Short-wave Infrared (SWIR) 1 | 1.57-1.65 | Discriminates moisture content of soil and vegetation; penetrates thin clouds |
| Band 7 - Short-wave Infrared (SWIR) 2 | 2.11-2.29 | Improved moisture content of soil and vegetation; penetrates thin clouds |
| NBR – Normalized burn ratio | (NIR – SWIR) /(NIR+SWIR) | A high NBR value indicates healthy vegetation while a low value indicates bare ground and recently burnt areas. Non-burnt areas are normally attributed to values close to zero. |
| NDVI – Normalized Difference Vegetation Index | (NIR-Red) /(NIR+Red) | NDVI values range from +1.0 to -1.0. Areas of barren rock, sand, or snow usually show very low NDVI values (for example, 0.1 or less). Sparse vegetation such as shrubs and grasslands or senescing crops may result in moderate NDVI values (approximately 0.2 to 0.5). High NDVI values (approximately 0.6 to 0.9) correspond to dense vegetation such as that found in temperate and tropical forests or crops at their peak growth stage. |
| NDWI – Normalized Difference Water Index | (NIR-SWIR) /(NIR+SWIR) | The Normalized Difference Water Index (NDWI) is sensitive to changes in liquid water content of vegetation canopies. It is derived from the Near-IR band and a second IR band, ≈1.24μm when available and the nearest available IR band otherwise. It ranges in value from -1.0 to 1.0. See [Gao (1996)](http://www.sciencedirect.com/science/article/pii/S0034425796000673) for details. |
| TCB – Tasseled cap brightness |  | a measurement value for the ground |
| TCW – Tasseled cap wetness |  | a measured value for interactions of soil and canopy moisture |

– Normalized burn ratio.