What is the operating system core language?

The Linux Kernel and most UNIX utilities, what you would call the operating system depending on how pedantic you want to be, are written in C.

Windows uses a kernel written in C, with most utilities and applications written in C++

Both iOS and OSX (the "Apple OS"), are written in a combination of C and Objective–C, C is used for the mach kernel and other lower levels. Objective–C is used for the higher levels.

Android is built on top of Linux, and a large portion of it is written in C. There are swaths of code written in C++ though. Also, most of the application framework (the stuff you would call android, and almost everything you see on screen) is written in Java.

Generally speaking, C was created alongside UNIX and is a fantastic language for writing things like operating systems. In all of my above examples, assembly is used for performance–critical situations. However, the entire operating system is not written in assembly because the resulting code would be unportable and hard to maintain.