

| Seq. | Who | Num | Length | Running | Topic |
|---------------------------|----------|-------|---------|----------|---|
| No. | Presents | Pages | Minutes | Time | |
| Tuesday April 12 | | | | | |
| | | | | 9:00 AM | Classroom opens |
| 1 | Chuck | 5 | 10 | 9:30 AM | Welcome to the SPICE Tutorials |
| 2 | Chuck | 32 | 40 | 9:40 AM | SPICE overview |
| 3 | Boris | 13 | 20 | 10:20 AM | SPICE conventions |
| 4 | Boris | 28 | 35 | 10:40 AM | NAIF IDs and Names |
| 5 | Nat | 35 | 50 | 11:15 AM | Fundamental concepts of observation geometry |
| 6 | Nat | 27 | 40 | 12:05 PM | Intro to kernel files |
| | | | 70 | 12:45 PM | Lunch |
| 7 | Ed | 22 | 25 | 1:55 PM | Intro to Toolkit: libraries, utilities, applications, documentation |
| 8 | Ed | 8 | 10 | 2:20 PM | Using Module Headers |
| | Boris | | 10 | 2:30 PM | Brief demo of navigating Toolkit documentation |
| | | | 30 | 2:40 PM | Lesson #1 Navigating through the SPICE components |
| | | | 30 | 3:10 PM | Lesson #2 Practice building a program: call TK_Version |
| 9 | Ed | 8 | 15 | 3:40 PM | Time: systems, formats and conversions |
| | | | 0 | 3:55 PM | Starting the Remote Sensing Lesson: 5 parts |
| | | | 30 | 3:55 PM | Lesson #3 Remote Sensing: time conversions |
| 10 | Chuck | 16 | 20 | 4:25 PM | An introduction to WebGeocalc |
| | | | | 4:45 PM | End of class |
| Wednesday April 13 | | | | | |
| | | | | 8:30 AM | Classroom opens |
| 11 | Nat | 44 | 60 | 9:00 AM | SPK (Ephemeris information) |
| | | | 60 | 10:00 AM | Lesson #4 Remote Sensing: obtaining target states and positions |
| 12 | Nat | 29 | 40 | 11:00 AM | Reference Frames and Coordinate Systems in the SPICE Context |
| 13 | Ed | 13 | 20 | 11:40 AM | PcK (Planetary constants) |
| 14 | Boris | 16 | 20 | 12:00 PM | CK (Orientation information) |
| 15 | Boris | 16 | 25 | 12:20 PM | FK (Reference frames information) |
| 16 | Boris | 8 | 15 | 12:45 PM | Using the frames kernel in conjunction with other kernels |
| | | | 60 | 1:00 PM | Lunch |
| | | | 60 | 2:00 PM | Lesson #5 Remote Sensing: spacecraft orientation and reference frames |
| 17 | Nat | 15 | 25 | 3:00 PM | Computing derived quantities |
| | | | 60 | 3:25 PM | Lesson #6 Remote Sensing: computing sub-s/c and sub-solar points |
| 18 | Boris | 14 | 20 | 4:25 PM | IK (Instrument information) |
| 19 | Boris | 2 | 5 | 4:45 PM | Reading FKs and IKs |
| | | | | 4:50 PM | End of class |

| Seq. | Who | Num | Length | Running | Topic |
|--|----------|-------|---------|----------|--|
| No. | Presents | Pages | Minutes | Time | |
| Thursday April 14 | | | | | |
| | | | | 8:30 AM | Classroom opens |
| | | | 60 | 9:00 AM | Lesson #7 Remote Sensing: intersecting vectors with a triaxial ellipsoid and computing illumination angles |
| 20 | Nat | 7 | 10 | 10:00 AM | Exception handling |
| 21 | Ed | 6 | 10 | 10:10 AM | Common Problems - An intro |
| 22 | Boris | 36 | 45 | 10:20 AM | Toolkit applications: chronos, spkmerge, mkspk, etc. |
| | | | 60 | 11:05 AM | Lesson #8 Practice using some toolkit apps: e.g. chronos, commnt, spkdiff, ckbrief, |
| 23 | Ed | 17 | 25 | 12:05 PM | Non-Toolkit Apps (those not in generic Toolkits) |
| 24 | Boris | 10 | 15 | 12:30 PM | Summary of Key Points (Getting Started) |
| | | | 60 | 12:45 PM | Lunch |
| 25 | Ed | 33 | 40 | 1:45 PM | Geometry Finder Subsystem Overview |
| 26 | Boris | 11 | 15 | 2:25 PM | The NAIF Server and Horizons Server |
| 27 | Nat | 10 | 15 | 2:40 PM | DSK (Digital Shape Kernel) |
| 28 | Chuck | 8 | 15 | 2:55 PM | SPICE development plans |
| | All | | 15 | 3:10 PM | Summary and class feedback |
| | Ed | | 5 | 3:25 PM | Overview of "Other Stuff" lesson |
| | Boris | | 5 | 3:30 PM | Overview of "In-situ" lesson |
| | Nat | | 5 | 3:35 PM | Overview of "Event finding" lesson |
| | Nat | | 5 | 3:40 PM | Overview of "Binary PCK" lesson |
| | | | 60 | 3:45 PM | Lesson #9 Pick "Other Stuff," and then more if have time |
| | | | | 4:45 PM | End of class |
| | | 489 | | | |
| Backup: included in package but not presented | | | | | |
| 1 | | 7 | | | Motivation for SPICE |
| 2 | | 9 | | | Porting Kernels |
| 3 | | 7 | | | Comments (meta-data) in SPICE kernels |
| 4 | | 10 | | | Installing the Toolkit |
| 5 | | 16 | | | Preparing for programming |
| 6 | | 15 | | | IDL interface to CSPICE |
| 7 | | 14 | | | Matlab interface to CSPICE |
| 8 | | 22 | | | Matlab programming example |
| 9 | | 24 | | | IDL programming example |
| 10 | | 26 | | | C programming example |
| 11 | | 26 | | | Fortran programming example |
| 12 | | 18 | | | LSK and SCLK (Leapseconds and Spacecraft Clock kernels) |
| 13 | | 22 | | | Other useful SPICELIB/CSPICE functions |
| 14 | | 9 | | | E-Kernel Overview |
| 15 | | 26 | | | Lunar/earth binary PCK and FKs |
| 16 | | 51 | | | Dynamic frames: how to define many kinds of reference frames |
| 17 | | 44 | | | Making an SPK file |
| 18 | | 28 | | | Making a CK file |
| | | 374 | | | |