SketchUp is an easy to use, simple 3D modeler but...

...it is not an intrinsic solid modeler, it's a `"polygonal surface modeling"` program -- plugins allow for solid modeling (and the Pro version Solid tools). For instance, there is an inner and outer face also called face normals will affect your print. Having reversed faces will cause your .stl to not print effectively. So very careful model making is required to make SketchUp behave as a solid modeler.

… it can't do very complex shapes (organic shapes, voxels, and greebles) through plugins are possible, so very complicated and

SketchUp 2013 just came out: SketchUp Make is the free version
What's New: Extension Warehouse -- finding and installing plugins became a lot easier

SketchUp Must-have Plugins for Solid Modeling
SketchUp stl -- the default .stl importer and exporter (still improving)
Solid Inspector (& TT_Lib2) -- shows you where the errors are located in the model

NOT in Extension Warehouse:
Solid Solver -- makes changes to your model to make it a solid
Joint Push Pull -- extrudes in any direction/vector

Others to consider:
Cleanup3 (cleans up your models)
Edge Tools (great tools for refining models)
Rotated Rectangle (rectangle any way you want them)
Selection Toys (selecting specific edges or faces made easy)
Shapes (3D shapes made easy)
Utilities Tools (making faces out of edges such as importing CAD linework and making 3D stuff)
Weld (joins two edges together no matter the vector)

Cool plugins for specialty work
Bitmap to Mesh (converts black to white spectrum to high/low elevations)
CLF Greeble (little boxes of details everywhere)
LSS Matrix (mass changes to groups, a voxel)
Artisan (paid plugin but gives you organic controls over surfaces)
BoolTools ($10 plugin, performs union, difference, and intersection functions)

SketchUp Basics
Opening SU, Units, Templates, Extension Warehouse
Drawing tools (curved shapes are approximate)

Inference drawing
Modification (Move/Copy, PushPull, Offset)
Components and Layers
3 Ways to create a model:
        Draw it by hand from measurements
        Dwg import if you have SketchUp Pro, otherwise use free dxf plugin
        Draw on pictures to create model using Photo Match

SketchUp to 3D Print process
In SketchUp: create a clean, watertight (manifold), model with no holes or multiple coplanar surfaces. Simple modeling is best.
Run *SolidSolver* plugin on a Group of the model by going to Tools ->SolidSolver [Tools->SolidInspector will take you through your model showing you where the problems are located]
The Group should be listed as "Solid Group (1 in model)" under Entity Info. Scale it down and convert to mm.
Use Export .stl to convert the SketchUp model to something readable by the printer software
Use http://cloud.netfabb.com/ to check .stl files [a free cloud service that will email you a link to the repaired file]
Use Makerware or your 3D printer software of choice to check the model for scale and volume before printing
Print it!

Errors with SketchUp and how to defeat them like a ninja
Each edge needs two faces
        Stray edges (just delete them)
        Holes (trace an edge to fill them)
        Internal faces (delete them)
Walls need thickness -- Sketchup has lines/edges and faces so you need to have separate faces to have thickness
Can't do small parts -- start your model in Meters then scale down to get to Millimeters
Arcs and circles are lines! -- use lots of segments to make the models print out smoothly
Models are a mess! -- use groups, components, and Tools -> Outer Shell to simplify your work. (It acts as a Union between two Solid Objects to simplify geometry.)
        Have a model with all your components, then save off a version and use Outer Shell before exporting out to .stl
How do I... with plugins! Plugins will get you what you need: a solid object exported to .stl
Minimize your volume -- use Entity Info to check your units and volume. Keep your models hollow so your 3D printing software can do the math on determining how much it should be filled.

More reading:

http://www.mastersketchup.com/8-tips-for-3d-printing-with-sketchup/

http://www.thomthom.net/thoughts/2012/12/sketchup-dwg-import-guide/ (use .dxf if you are using SketchUp Make, only SketchUp Pro will let you directly import .dwg)