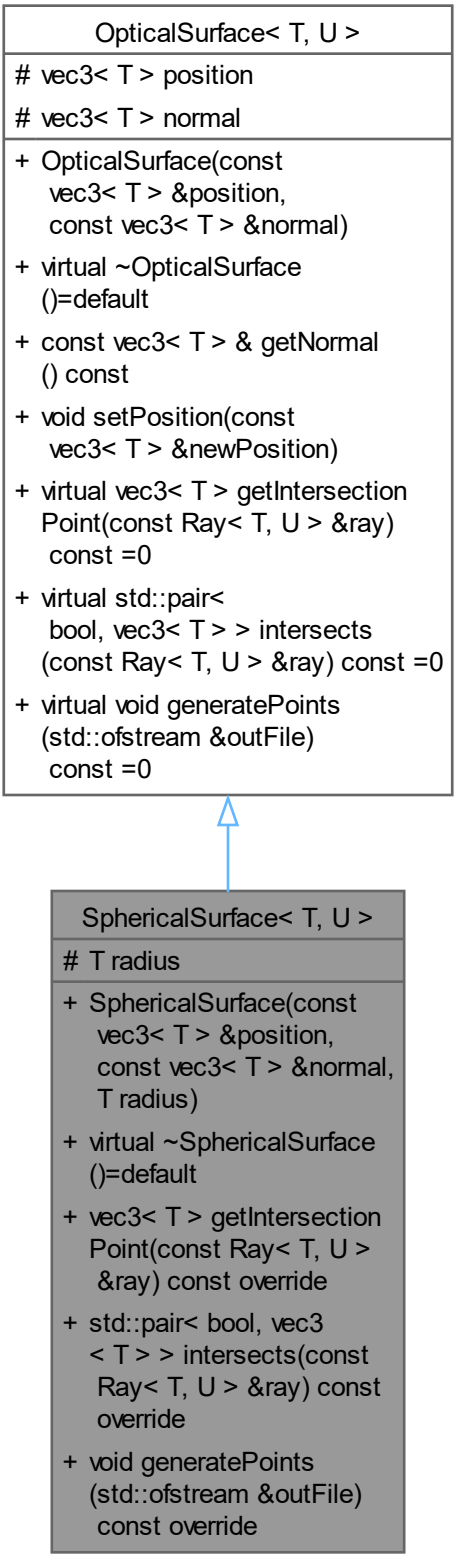
OpticalSurface< T, U >
# vec3< T > position
# vec3< T > normal
+ OpticalSurface(const vec3< T > &position, const vec3< T > &normal)
+ virtual ~OpticalSurface ()=default
+ const vec3< T > & getNormal () const
+ void setPosition(const vec3< T > &newPosition)
+ virtual vec3< T > getIntersection Point(const Ray< T, U > &ray) const =0
+ virtual std::pair< bool, vec3< T > > intersects (const Ray< T, U > &ray) const =0
+ virtual void generatePoints (std::ofstream &outFile) const =0
SphericalSurface< T, U >
# T radius
+ SphericalSurface(const vec3< T > &position, const vec3< T > &normal, T radius)
+ virtual ~SphericalSurface ()=default
+ vec3< T > getIntersection Point(const Ray< T, U > &ray) const override
+ std::pair< bool, vec3 < T > > intersects(const Ray< T, U > &ray) const override
+ void generatePoints (std::ofstream &outFile) const override