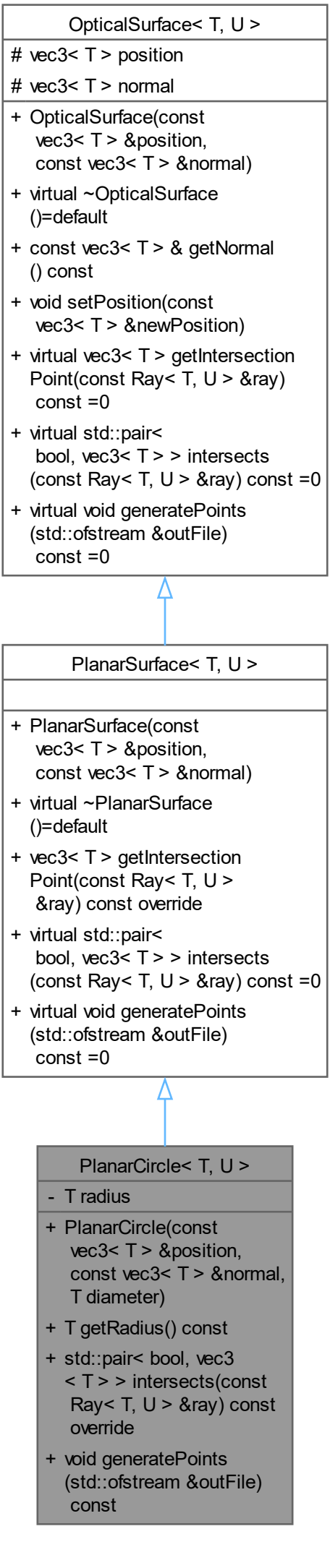
OpticalSurface< T, U >
vec3< T > position
vec3< T > normal
+ OpticalSurface(const vec3< T > &position, const vec3< T > &normal)
+ virtual ~OpticalSurface()=default
+ const vec3< T > & getNormal() const
+ void setPosition(const vec3< T > &newPosition)
+ virtual vec3< T > getIntersectionPoint(const Ray< 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
PlanarSurface< T, U >
+ PlanarSurface(const vec3< T > &position, const vec3< T > &normal)
+ virtual ~PlanarSurface()=default
+ vec3< T > getIntersectionPoint(const Ray< T, U > &ray) const override
+ virtual std::pair< bool, vec3< T > > intersects(const Ray< T, U > &ray) const =0
+ virtual void generatePoints(std::ofstream &outFile) const =0
PlanarCircle< T, U >
- T radius
+ PlanarCircle(const vec3< T > &position, const vec3< T > &normal, T diameter)
+ T getRadius() const
+ std::pair< bool, vec3< T > > intersects(const Ray< T, U > &ray) const override
+ void generatePoints(std::ofstream &outFile) const