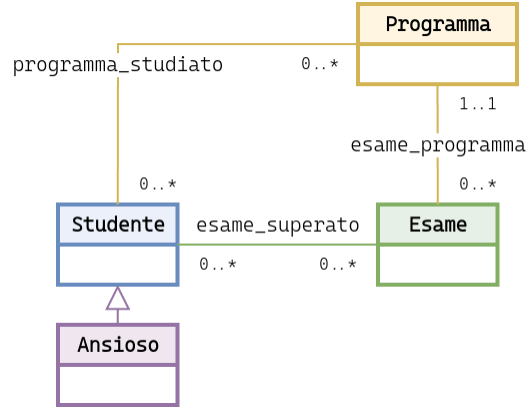# E.B.1.1 (FOL: Studenti ansiosi, modelling)

- $\mathcal{P} = \{$
    Studente/1, Ansioso/1, Esame/1, Programma/1,
    _esame_superato_/2, _esame_programma_/2,
    _programma_studiato_/2
  $\}$
- $\mathcal{F} = \{\}$

$(\forall\ \alpha\ \text{Studente}(\alpha) \to \neg\ \text{Esame}(\alpha) \wedge \neg\ \text{Programma}(\alpha))\ \wedge$
$(\forall\ \alpha\ \text{Esame}(\alpha) \to \neg\ \text{Programma}(\alpha))\ \wedge$
$(\forall\ \alpha\ \text{Ansioso}(\alpha) \to \text{Studente}(\alpha))\ \wedge$
$(\forall\ \alpha,\ \beta\ \textit{esame\_superato}(\alpha,\ \beta) \to \text{Esame}(\alpha) \wedge \text{Studente}(\beta))\ \wedge$
$(\forall\ \alpha,\ \beta\ \textit{esame\_programma}(\alpha,\ \beta) \to \text{Esame}(\alpha) \wedge \text{Programma}(\beta))\ \wedge$
$(\forall\ \alpha,\ \beta\ \textit{programma\_studiato}(\alpha,\ \beta) \to \text{Programma}(\alpha) \wedge \text{Studente}(\beta))\ \wedge$
$(\forall\ e\ \text{Esame}(e) \to \exists\ p\ \textit{esame\_programma}(e,\ p))\ \wedge$
$($
$\quad \neg\ \exists\ e,\ p1,\ p2$
$\qquad p1 \neq p2\ \wedge$
$\qquad \textit{esame\_programma}(e,\ p1)\ \wedge$
$\qquad \textit{esame\_programma}(e,\ p2)$
$)\ \wedge$
$($
$\quad \forall\ s,\ e$
$\qquad \textit{esame\_superato}(s,\ e) \to$
$\qquad\quad \neg\ \text{Ansioso}(s)\ \vee$
$\qquad\quad \exists\ p\ \textit{esame\_programma}(e,\ p) \wedge \textit{programma\_studiato}(p,\ s)$
$)$

- $D = \{s, e, p, \}$
- $M = \{...\}$
- $I = \{...\}$